ERRATA

September 14, 2007

The following errors were identified in the Record of Decision (ROD) following printing of the document. New text is highlighted in blue. Deleted text is redlined.

Please delete pages ii-iv of the Table of Contents and replace with the attached corrected version of the "Table of Contents (corrected)."

Page 1, first paragraph, final sentence should read as follows: By 2011 this project is predicted to reduce the number of people exposed to noise above 45 dB DNL noise levels by ~~619,000~~ 619,023 people, reduce fuel burn and emissions by the airlines, and reduce delays by 20%."

Page 13, first full sentence at the top of the page should read as follows: ~~The three remaining redesign concepts would meet the purpose and need and were studied in detail in the EIS.~~ Two of the remaining design concepts, modifications and clean sheet, would meet the purpose and need and were studied in detail in the EIS. Although Ocean Routing did not meet the purpose and need, it was studied in detail in order to address the long-standing concerns of NJCAAN.

Page 21, first paragraph, fourth sentence. Delete extra period.

Page 22, first paragraph should read as follows: "FAA solicited comments on the Noise Mitigation Report including holding several public meetings."

Page 25, second paragraph, third paragraph from top, fourth sentence should read as follows: In 2006 ~~213,962~~ 213,692 people in the Study Area are projected to be exposed to noise levels in the 60 to 65 dB DNL range.

Page 25, fourth paragraph, first sentence should read as follows: The selected project would cause approximately 21,399 people to be significantly impacted, which means they would experience a change in noise levels of +1.5 dB or more at a level of 65 DNL dB or greater in 2006.

Page 26, first full sentence should read as follows: In areas that would experience 45-60 dB DNL, the number of persons experiencing a slight to moderate impact, 5 dB DNL, would be 142,517.

Page 27, B, first paragraph, fourth sentence, JKF should be corrected to JFK.

Page 27, B, first paragraph, last sentence should read as follows: Based on the level of noise modeled for these noise sensitive sites and their use, ~~the~~ only the residences at 34 E. 4th Street and 406 Marshall Street and the John Marshall School would represent an incompatible land use.

Page 27, second paragraph, last sentence, should read as follows: Finally, ~~with respect to areas,~~ ~~548,214~~ 548,241fewer people will experience a 45-50 dB DNL noise exposure as a result of the selected project.

Page 27, B, first paragraph, fifth sentence should read as follows: Based on the level of noise modeled for these noise sensitive sites and their use, ~~the~~ only the residences at 34 E. 4th Street and 406 Marshall Street and the John Marshall School would represent an incompatible land use.

Page 28, third paragraph, first sentence should read as follows: The data indicated that all of the airspace redesign alternatives, with the exception of the Ocean Routing Airspace Alternative, would result in environmental justice impacts on minority populations, but not low-income populations.

Page 30, fourth paragraph, last sentence should read as follows: ~~Delaware SHPO requested that FAA consider all areas of Delaware within the Study Area to be in the APE, and the FAA agreed.~~ The Delaware SHPO requested that all of New Castle County, within the Study Area, be examined for impacts to cultural resources. Potential noise changes in this area of interest were considered while developing the APE. Ultimately, the APE did not include any areas in the states of Connecticut or Delaware because not only were there no significantly impacted census blocks within these states, there were also no moderately or slightly impacted census blocks in either state.

Page 30, fifth paragraph, first sentence should read as follows: ~~Ten~~ Seventeen historic resources were identified as being in the APE: the Inwood Country Club near JFK, the Unification Chapel, the residences at 34 E. 4th Street and 406 Marshall Street, the John Marshall school, the Bronx Powder Company and the Jenkins Rubber Company buildings, and the Singer Factory District, the Italianate Rowhouse at 168-173 Reid Street, the Sacred Heart Church and School and a portion of the Central Railroad of New Jersey, near EWR; and the Lazaretto, the Printzhof, the Corinthian Yacht Club and Springhouse, the Art Moderne House, the Linde Air Products Corporation, the Westinghouse Village row houses and the Westinghouse Industrial Complex located ~~to~~ near PHL.

Page 30, last paragraph, last sentence should read as follows: Since publishing the Final EIS, it was discovered that that several sites eligible or potentially eligible for listing on the National Register of Historic Places were inadvertently omitted from the discussion in the FEIS. This information is contained in Appendix B.

Page 31, third paragraph, fifth sentence should read as follows: In response to comments on the Draft EIS, the FAA re-evaluated the applicability of Part 150 guidelines to ~~all~~ Section 4(f) resources in the Study Area.

Page 32, second full paragraph, third sentence. Add ” (end quotation mark) to end of sentence.

Pages 34, seventh bullet should read: Wallkill River National Wildlife Refuge

Page 35, first full paragraph, third sentence should read as follows: For example, FHWA has determined that a constructive use would not occur for "[l]~~L~~ands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose~~.~~" when the project noise does not exceed 57 Leq(h).[13]

Page 35, last full paragraph should read as follows: FAA also considered effects upon the Wallkill National Wildlife Refuge considering the fact that one of its purposes is to preserve threatened and endangered species. Listed species known to inhabit the refuge currently or in the past are: the Indiana bat, bog turtle, dwarf wedge mussels, Mitchell's ~~stayr~~ satyr (extirpated), and American burying beetle (extirpated). As noted in the section of this ROD relating to threatened and endangered species, by letter dated August 27, 2007, the FAA determined that the selected project would have no affect on these listed species and requested concurrence from FWS. On September 5, 2007, the FWS concurred with the FAA's determination of no effect to these federally listed species. See that section of the ROD for more details.

Page 37, second paragraph, first sentence. Table 5.14 references the Final EIS.

Page 40, first full sentence should read as follows: The FAA responded on September ~~4,~~ 5, 2007 and requested concurrence in its determination of no effect for the roseate tern and the piping plover. On September 5, 2007 the FAA obtained FWS concurrence that the selected project is not likely to adversely affect the piping plover and roseate tern.

Page 40, first full paragraph, first two sentences should read as follows: While the U.S. Department of Interior expressed no concerns about species in the Wallkill River National Wildlife Refuge, FAA recognized as part of its further review of Section 4(f) resources that the purpose of this refuge is to preserve threatened and endangered species. Species known to inhabit the refuge presently or in the past are the Indiana bat, bog turtle, dwarf wedge mussels, Mitchell's ~~stayr~~ satyr (extirpated), and American burying beetle (extirpated).

Page 40, A, second paragraph. Add a footnote to the last sentence of this paragraph, See FAA Orders 5050.4A and 5050.4B for guidance on the threshold of significance.

Page 42, first full sentence at the top of the page should read as follows: As a result of discussions with EPA staff, after determining that there was adequate supporting data, FAA deemed it prudent to include the activities described in the preamble to the General Conformity Rule ~~above 3,000 feet~~ as a presumed to conform action in the Final Notice that FAA published in the Federal Register, Vol. 72, No. 145, pp. 41565-41580 on July 30, 2007.

[13] 23 C.F.R. § 771.135 and Table 1 of 23 C.F.R. § 772.

Page 42, second paragraph, second sentence should read as follows: The ~~MITRE's~~ study projected fuel consumption on an average day in 2011 under the Future No Action Alternative, the Preferred Alternative, and the selected project.

Page 42, second paragraph, sentences 4 & 5 should read: The analysis of fuel consumption demonstrated that the selected ~~alternative~~ project would result in a reduction in fuel consumption of 194.4 metric tons per day, compared to the No Action Alternative. This was slightly ~~greater~~ less than the Preferred Alternative, which would reduce fuel consumption by 205 metric tons per day compared to the No Action Alternative. As reduced fuel consumption is directly related to reducing air pollutant emissions, the fuel burn analysis further shows that the selected project is exempt because it would clearly reduce rather than increase emissions.

Page 43, top of page, second full sentence should read: The selected project will not cause a new violation of the NAAQS, worsen an existing violation, or delay meeting the standards of the carbon monoxide, ozone, sulfur dioxide, and particulate matter NAAQS in the ~~six~~ five states within the Study Area.

Page 44, second paragraph under 12.A, second sentence should read: Delaware concurred in the consistency determination. Connecticut, ~~Delaware,~~ New Jersey, New York, and Pennsylvania did not respond to the consistency determination for its state.

Page 45, B, first sentence should read: The selected project will increase the efficiency of the airspace, result in more direct routing, and decrease the use of fuel by ~~205~~ 194 metric tons per average day.

Page 46, fourth paragraph, third sentence should read: There was no overlap in the study areas for each of the projects with the study area of the selected project, and the ~~CEP~~ CTAP and Potomac projects will not induce growth or increase capacity.

Page 46, fifth paragraph, first sentence should read: The FAA ~~is currently completing~~ issued a FONSI/ROD based on an Environmental Assessment (EA) for the Midwest Airspace Enhancement Airspace Redesign in the Cleveland/Detroit Metropolitan Areas. The study area for this project does not overlap the study area for the selected project and will not induce growth or increase capacity.

Page 46, last paragraph, second sentence should read: Noise measurement data, presented in Final EIS Appendix D, was analyzed in conjunction with the noise modeling computations for each noise measurement site~~s~~ in the study area.

Page 49, Comments on ROD. Correct the synopsis of UPS comment as follows: *EWR Night-time Ocean Routing would cause a significant operational burden to UPS, likely cause an increase in emissions over parts of Staten ~~il~~an~~s~~ Island area and add significant complexity to the New York Metro Air Traffic Area, increase flight time for*

departures which increase costs and potential for significant down-line disruption to ~~out~~ our nework.

Page 53, At the end of Section VIII add the following paragraph: On August 31, 2007, the FAA received an additional comment letter from attorneys representing Rockland County, New York. The FAA has completed a preliminary review of this letter and its attachments. The letter raises issues that have already been addressed by the FAA during the public comment process. As such, the FAA is not providing additional responses to this letter. A copy of this letter and attachments is included in Appendix D.

Page 54, B: Add a period after "Study area." Delete the following: … ~~except the Pennsylvania SHPO. All but the Pennsylvania SHPO agreed with the FAA's determination that the selected project would cause no adverse effect on historic properties. The FAA is continuing to consult with the Pennsylvania Historic Preservation Office to resolve concerns about two historic properties and to provide assurances necessary to demonstrate compliance with Section 106 of the National Historic Preservation Act. If necessary, implementation of the components of the selected project will be delayed until that compliance can be assured.~~

Page 56, third paragraph, should read as follows: The FAA has determined that the bald eagle, a species that is no longer listed pursuant to the Endangered Species Act, is ~~also~~ not affected by the selected project. The FAA has also ~~initially~~ determined that the selected project as compared to the no-action alternative does not affect the piping plover or the roseate tern~~ – statement about tern not included in 8/27/07 letter to FWS).~~ On September 5, 2007, the FAA responded to the FWS and obtained FWS concurrence that the selected project is not likely to adversely affect these two species. ~~The FAA has requested concurrence from the FWS as to its determination and will continue to work with the FWS to address concerns expressed by the FWS. If necessary, implementation of the components of the selected project will be delayed until that compliance can be assured.~~

Appendix A: Page numbers were added.

Appendix B: Add the following title: "Additional Analysis"

Appendix B is currently paginated as 60-74. The pagination should be changed to B-1 through B-15.

Page 60, first paragraph, first sentence should read: In Section 5.3.5.1 of the FEIS the FAA committed to conduct further evaluation, in consultation with appropriate federal and state officials, to determine whether predicted noise increases or visual changes over affected areas of the 4(f) resources listed in Table ~~A.1~~ B.1 would result in a constructive use.

Page 63, third paragraph, first sentence should read: Table ~~A.2~~ B.2 compares the medians and ranges of noise exposure levels for the remaining 4(f) sites as a result of the

2006 No Action and 2011 Future No Action Airspace Alternatives as well as the selected project in 2011. [14]

Page 64, fourth paragraph, second sentence should read: Tables ~~A.3~~ B.3 and ~~A.4~~ B.4 show the winter and summer ambient sound levels measured at primarily backcountry locations in Great Smoky Mountains National Park. The first two columns present the 24-hour L_{Aeq} and L_{50} sound levels for the existing ambient, i.e., it includes all sound sources, over an entire 24-hour day.

Page 67, first paragraph, fourth sentence should read: Modeled 2006 and 2011 noise levels for the No Action and Future No Action Airspace Alternatives, and the selected project at the shelter locations are presented in Table ~~A.5~~ B.5.

Page 67, references figures A-1, A-2, A-3 and A-4. Those figures were inadvertently omitted from the ROD. The figures are included in Appendix B and attached to this Errata. For clarity, these figures have been re-numbered as figures B-1, B-2, B-3 and B-4.

Page 67. It was discovered that that several sites eligible or potentially eligible for listing on the National Register of Historic Places were inadvertently omitted from the discussion in the FEIS. This information is contained in Appendix B and attached to this Errata.

Appendix C and Appendix D: Full and complete copies of Appendix C and Appendix D were being prepared for publication at the time the ROD was signed. They are attached to this Errata.

[14] When the FAA began the formal NEPA process, the year 2000 was established as the baseline condition for noise modeling. The FAA then estimated the noise levels for 2006 and 2011 utilizing a well recognized and validated noise model called NIRS. For additional information on noise modeling and NIRS see FEIS 3.5 and Appendix E.

Table of Contents (corrected)

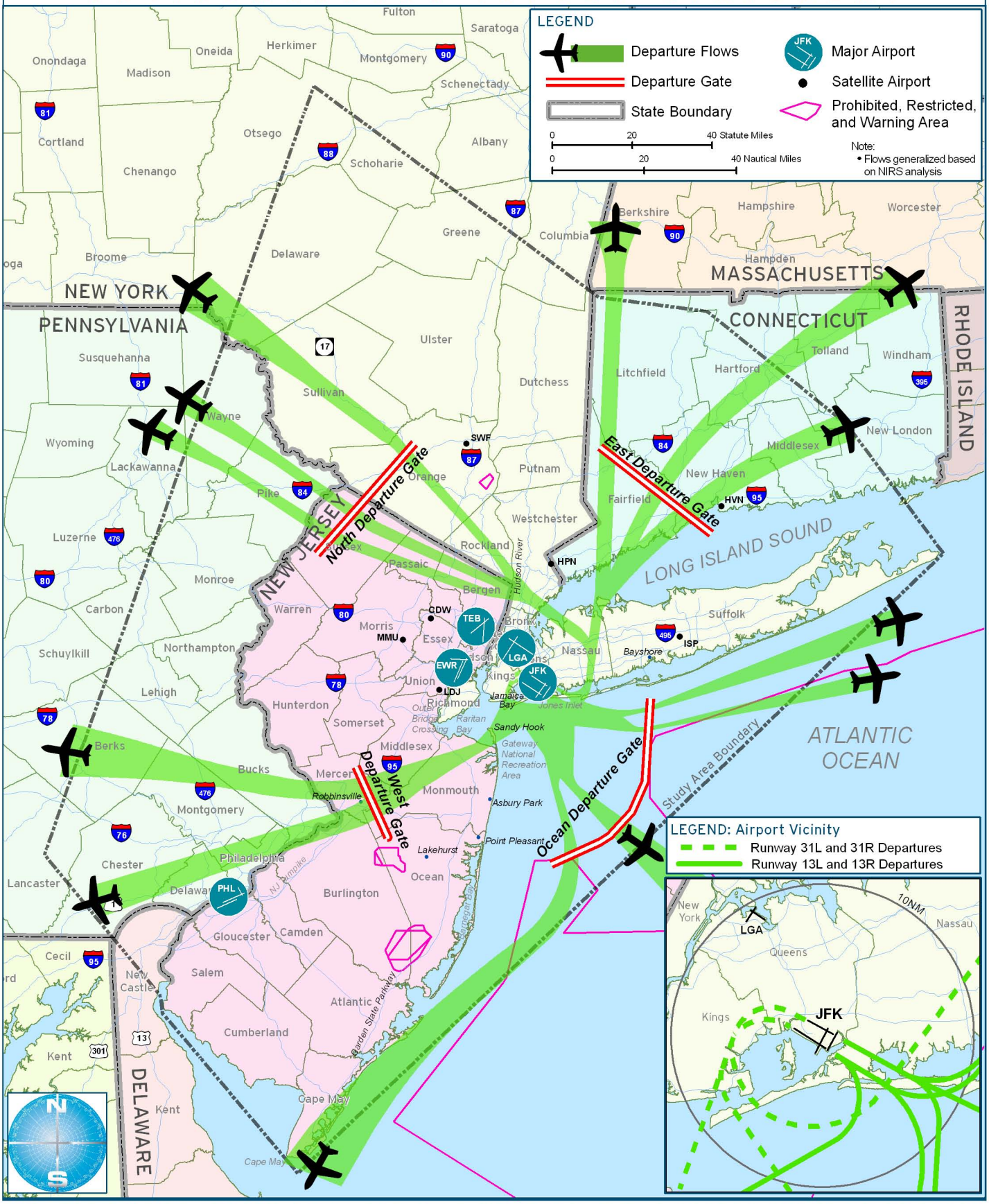
Appendices

Appendix D: Comment Letters on the FEIS

Future No Action Airspace Alternative
JFK Major Departure Flows

Figure 2.1

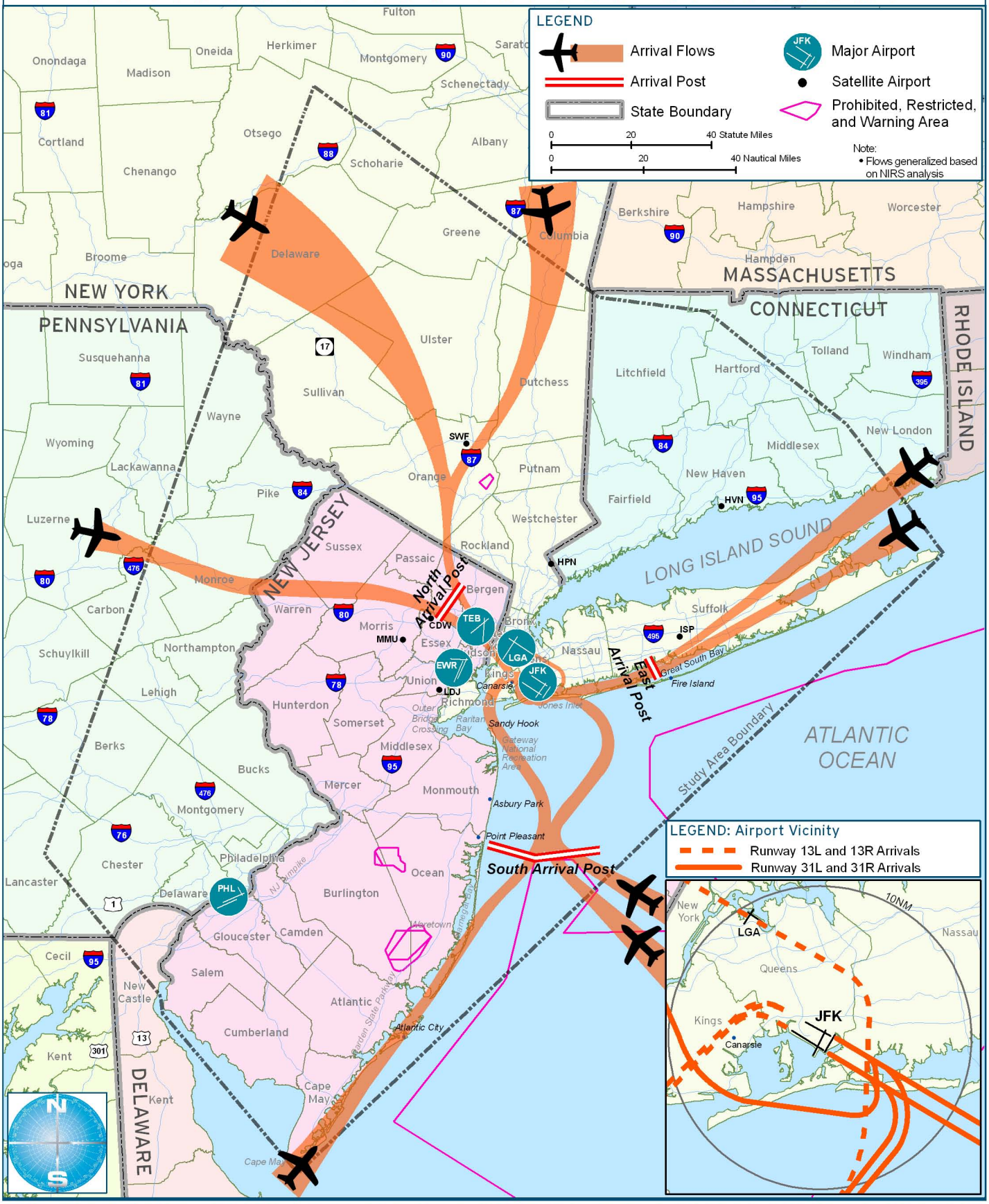
ENVIRONMENTAL IMPACT STATEMENT



NEW YORK / NEW JERSEY / PHILADELPHIA METROPOLITAN AIRSPACE REDESIGN PROJECT

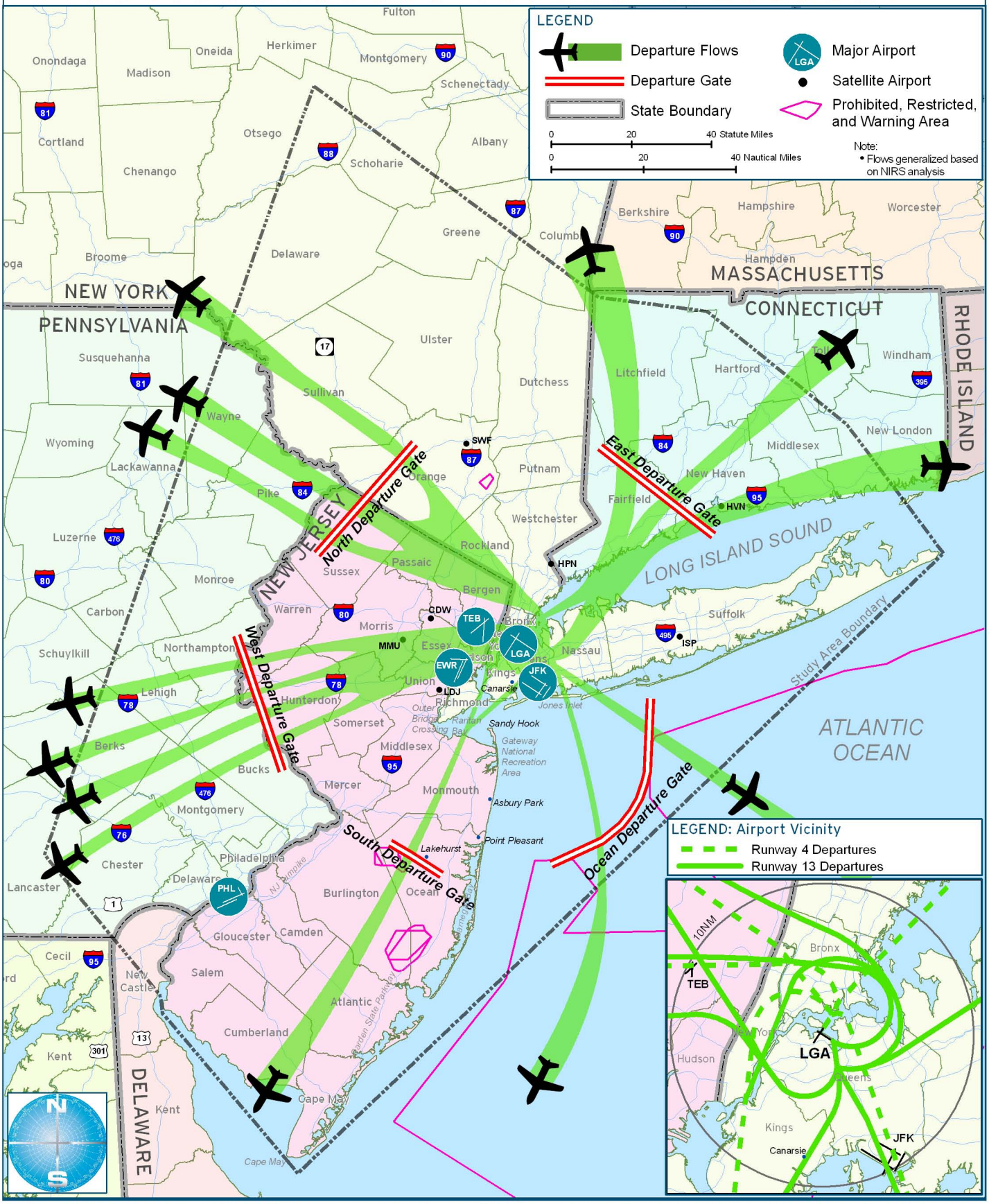
Future No Action Airspace Alternative
JFK Major Arrival Flows

Figure 2.2



Future No Action Airspace Alternative
LGA Major Departure Flows

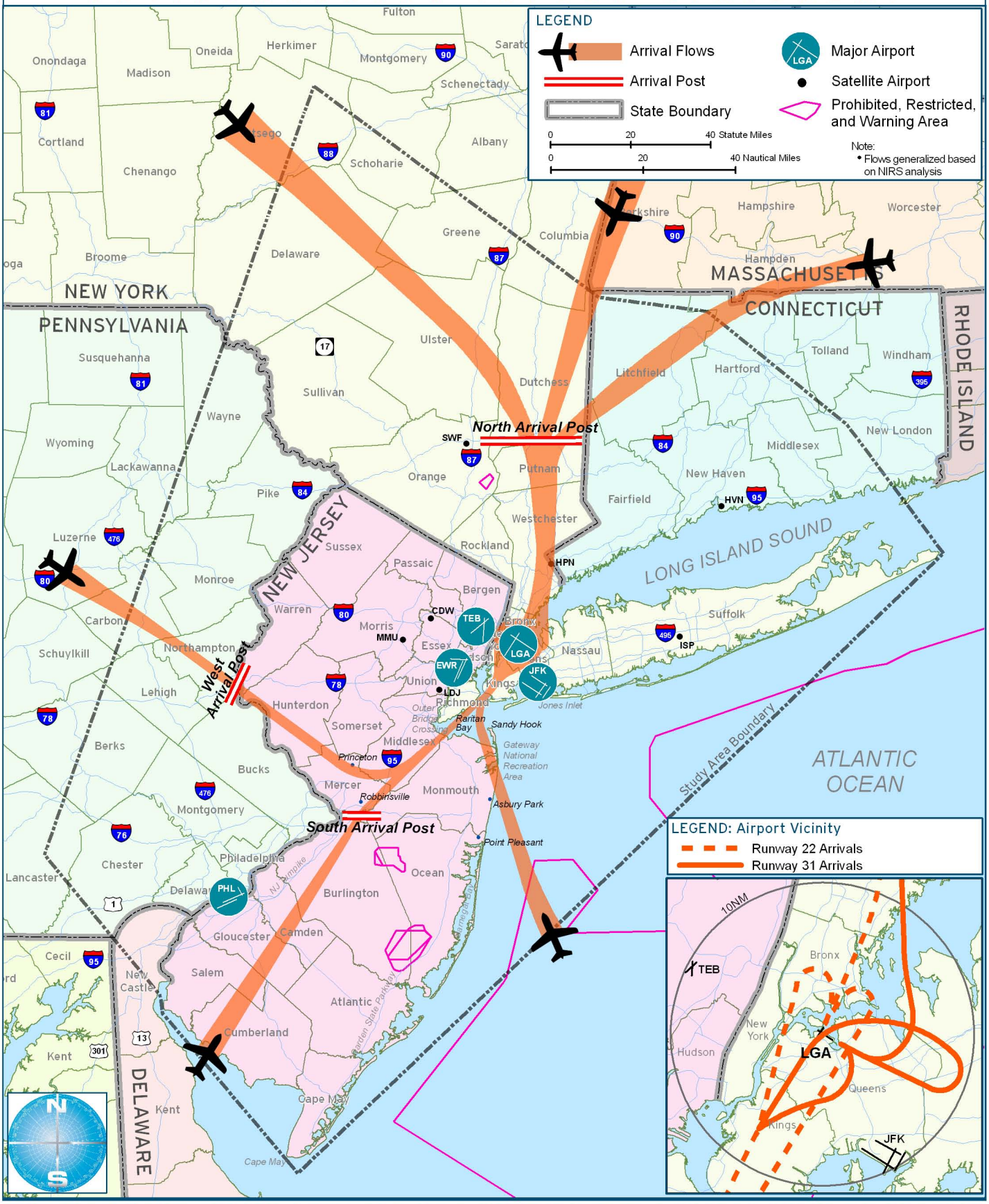
Figure 2.3



Future No Action Airspace Alternative
LGA Major Arrival Flows

Figure 2.4

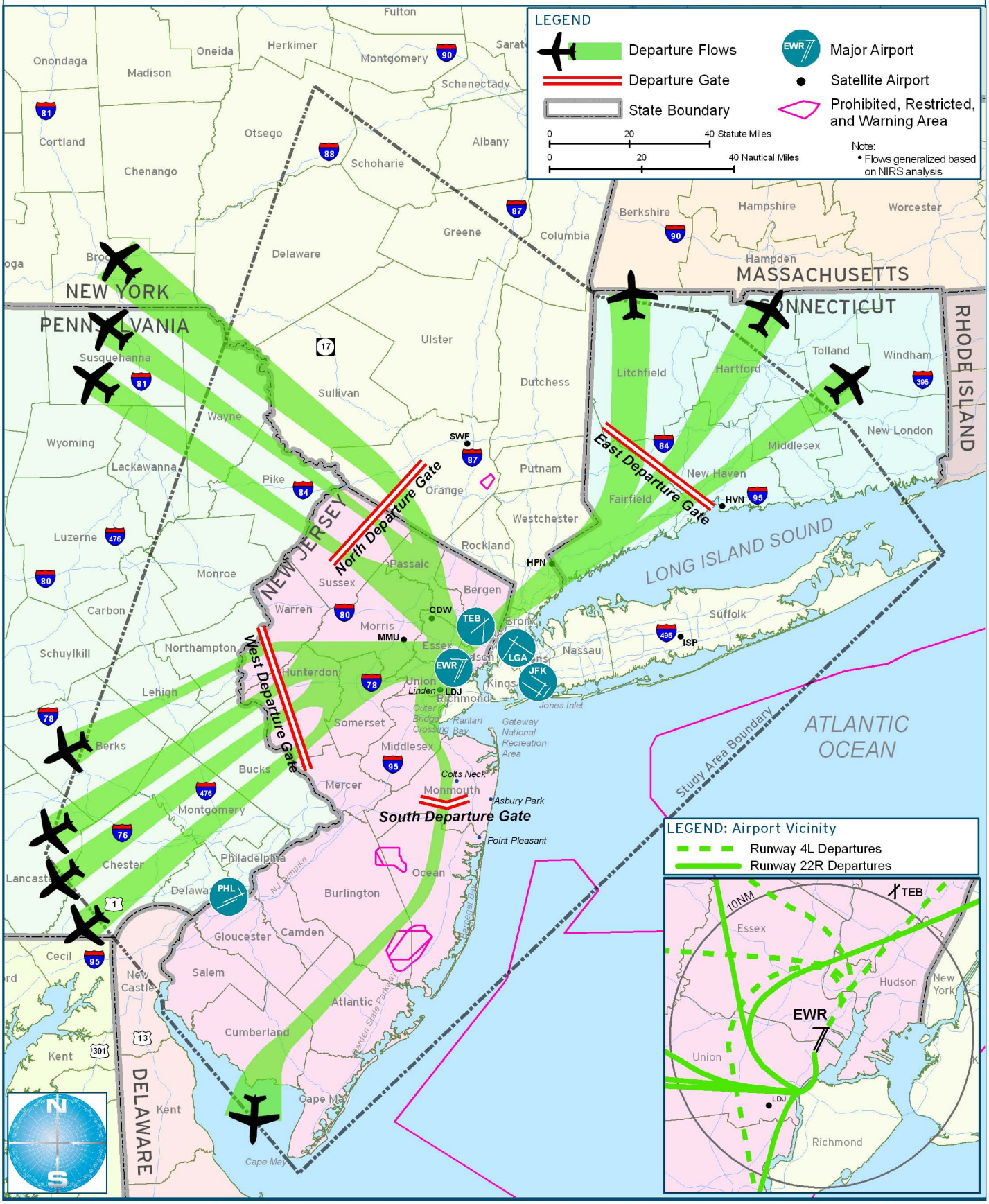
ENVIRONMENTAL IMPACT STATEMENT



NEW YORK / NEW JERSEY / PHILADELPHIA METROPOLITAN AIRSPACE REDESIGN PROJECT

Future No Action Airspace Alternative
EWR Major Departure Flows

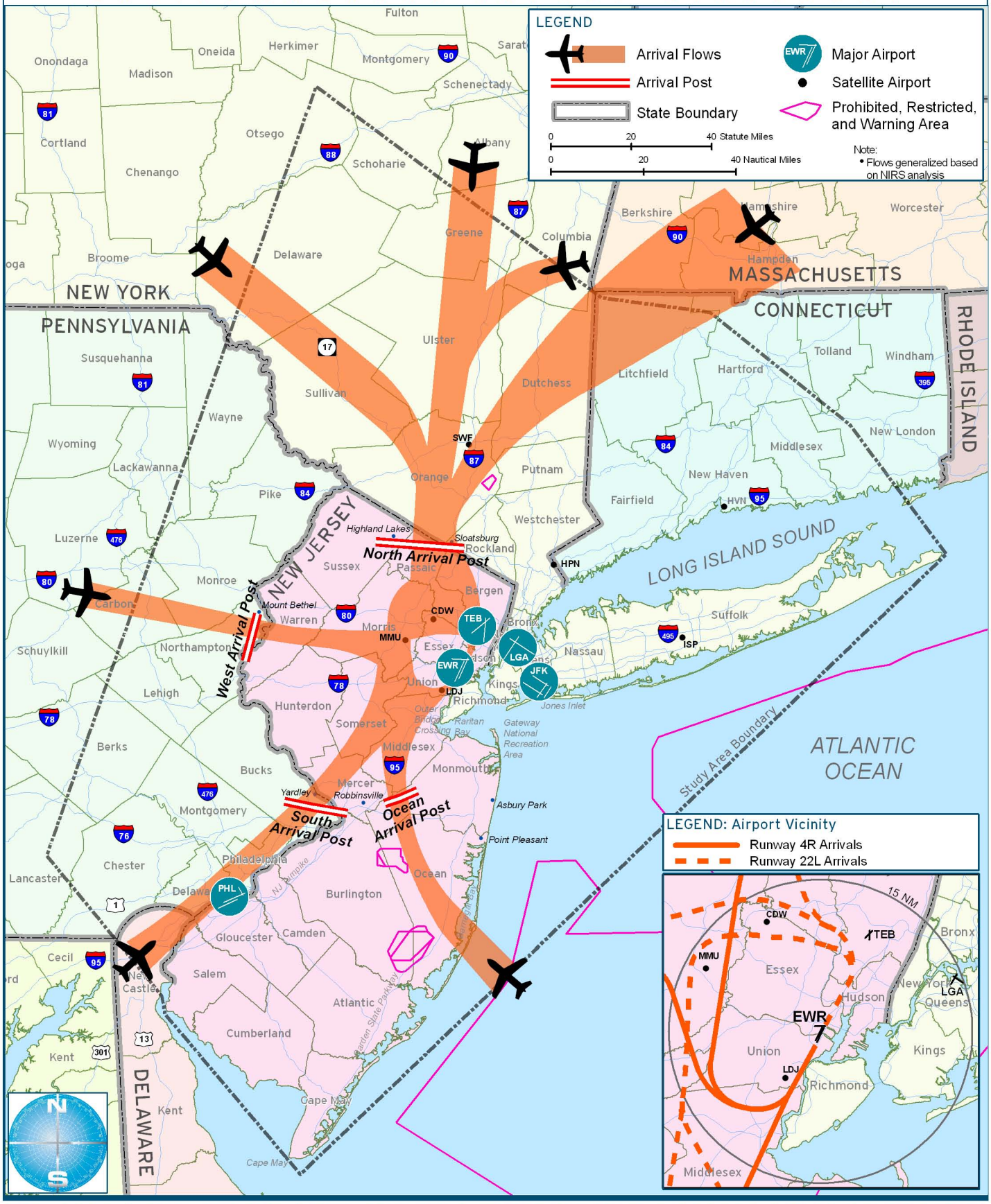
Figure 2.5



Future No Action Airspace Alternative
EWR Major Arrival Flows

Figure 2.6

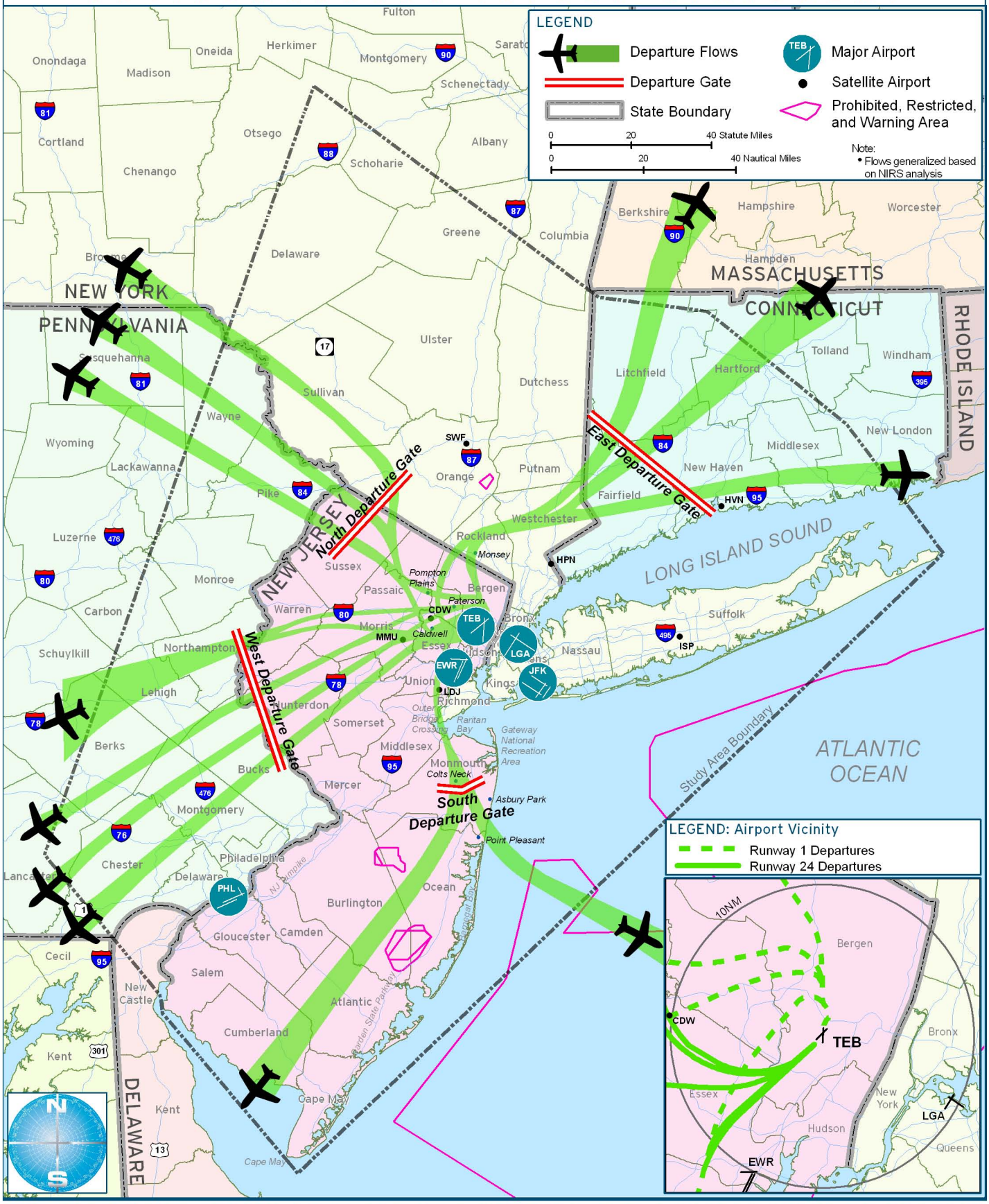
ENVIRONMENTAL IMPACT STATEMENT



NEW YORK / NEW JERSEY / PHILADELPHIA METROPOLITAN AIRSPACE REDESIGN PROJECT

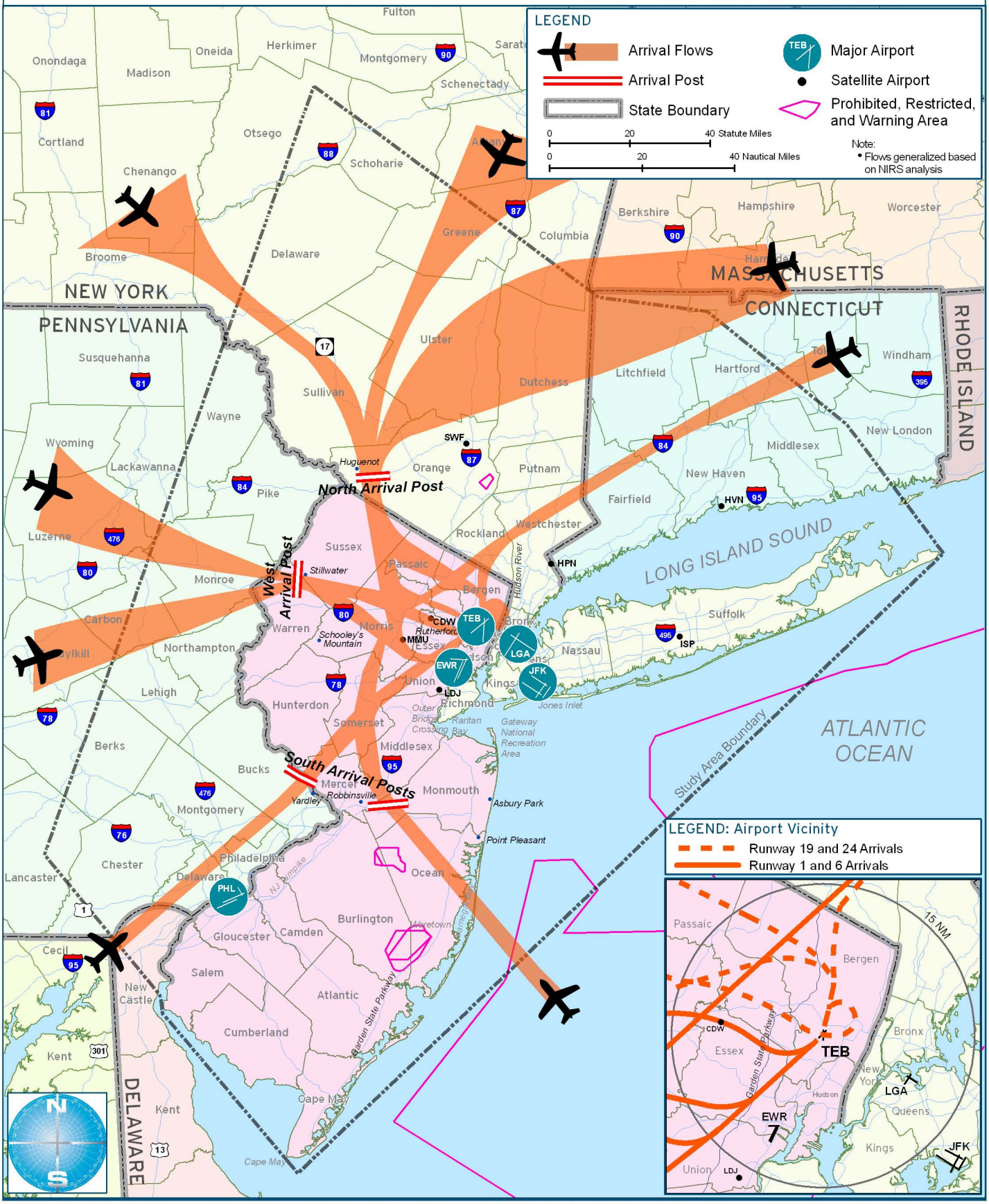
Future No Action Airspace Alternative
TEB Major Departure Flows

Figure 2.7



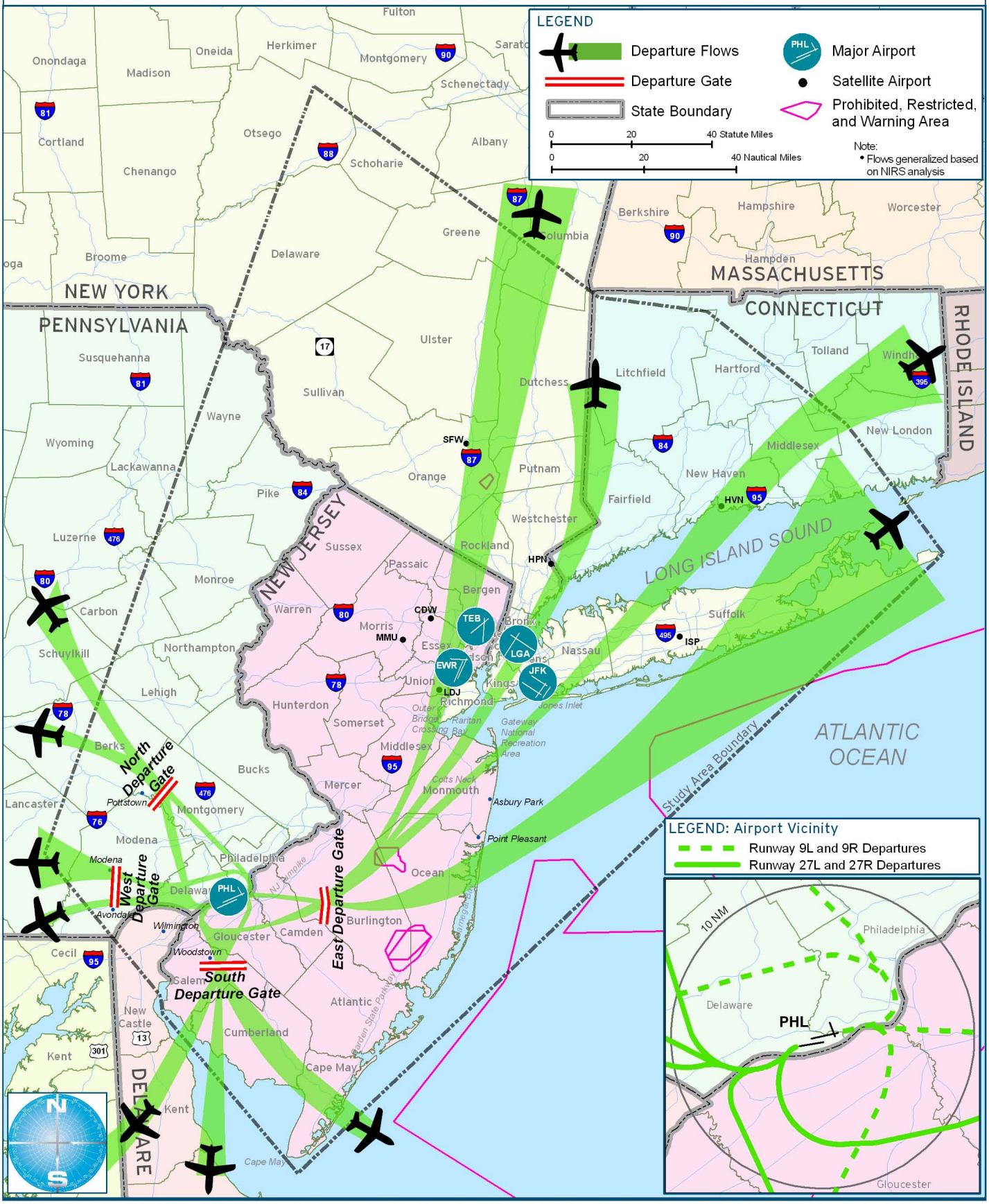
Future No Action Airspace Alternative
TEB Major Arrival Flows

Figure 2.8



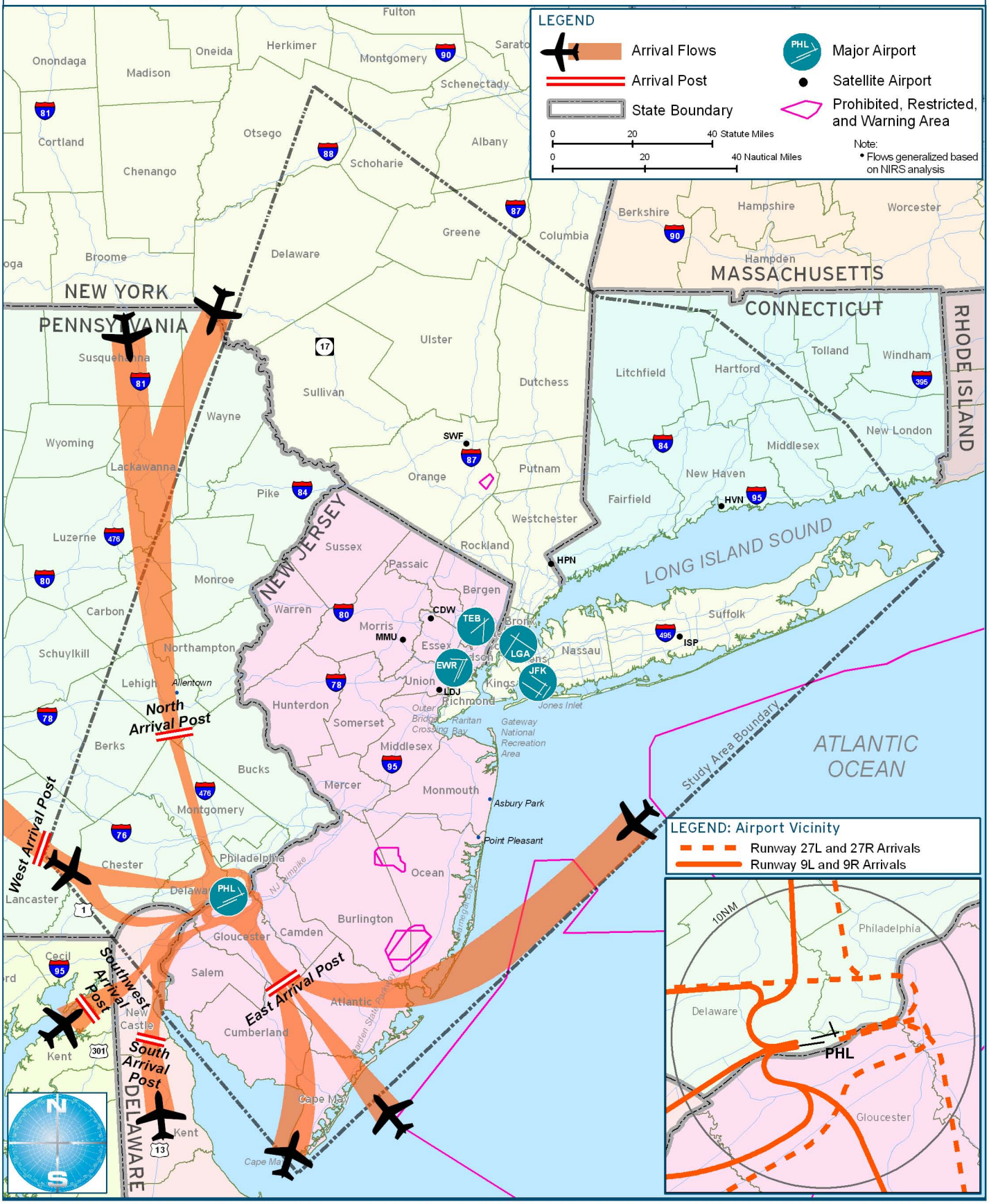
Future No Action Airspace Alternative
PHL Major Departure Flows

Figure 2.9



Future No Action Airspace Alternative
PHL Major Arrival Flows

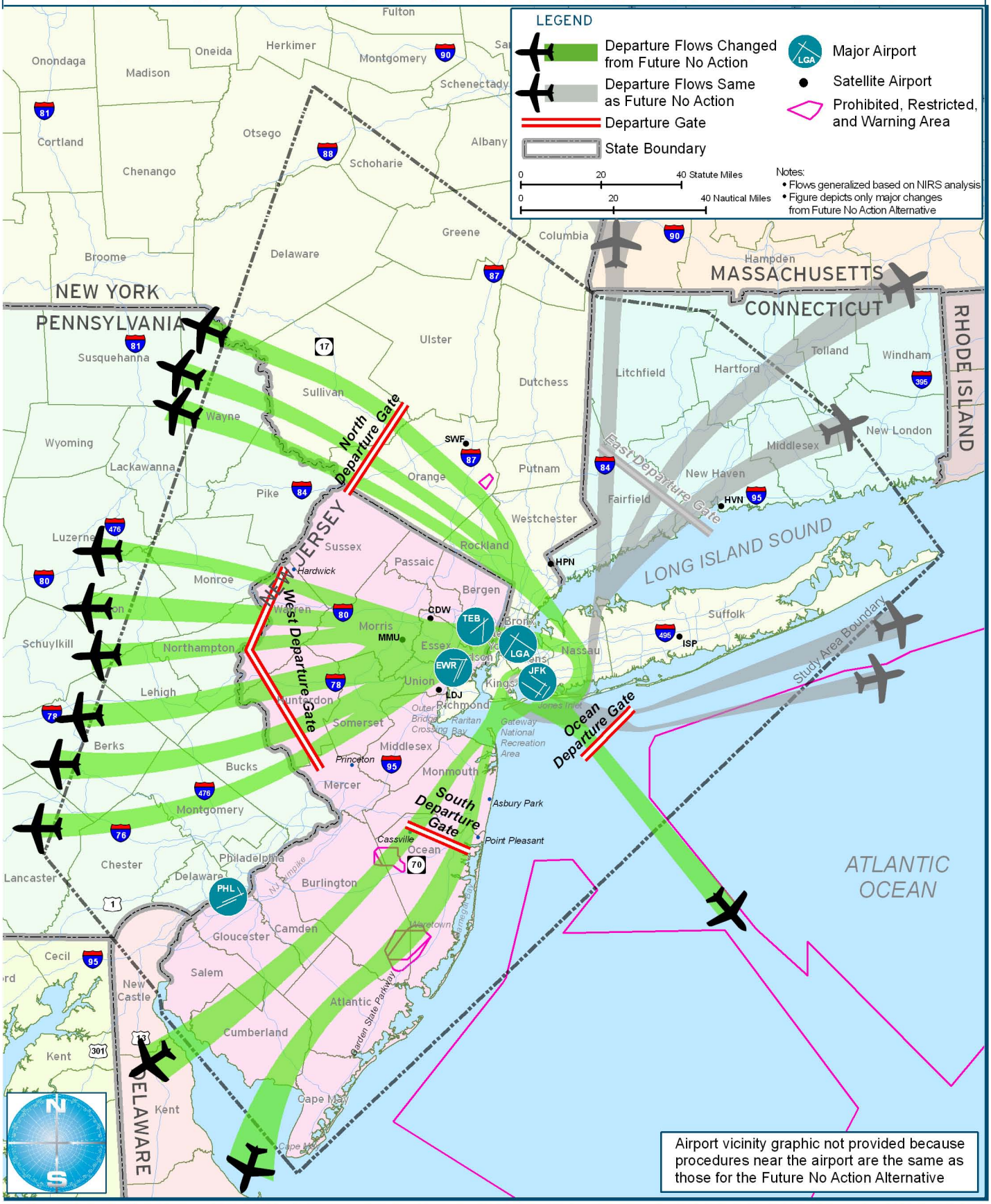
Figure 2.10



Integrated Airspace Alternative Variation with ICC JFK Major Departure Flows

Figure 2.24

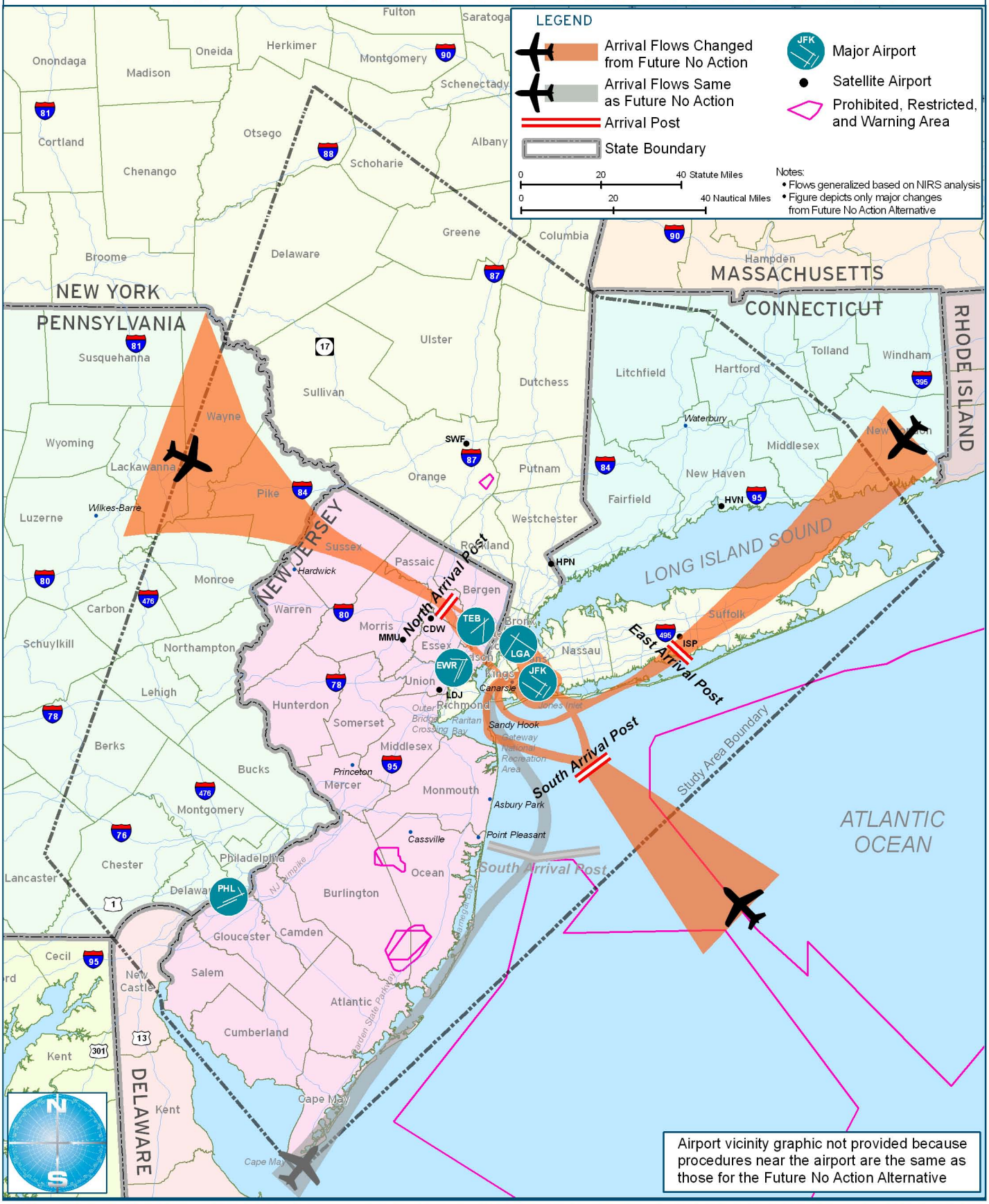
ENVIRONMENTAL IMPACT STATEMENT



NEW YORK / NEW JERSEY / PHILADELPHIA METROPOLITAN AIRSPACE REDESIGN PROJECT

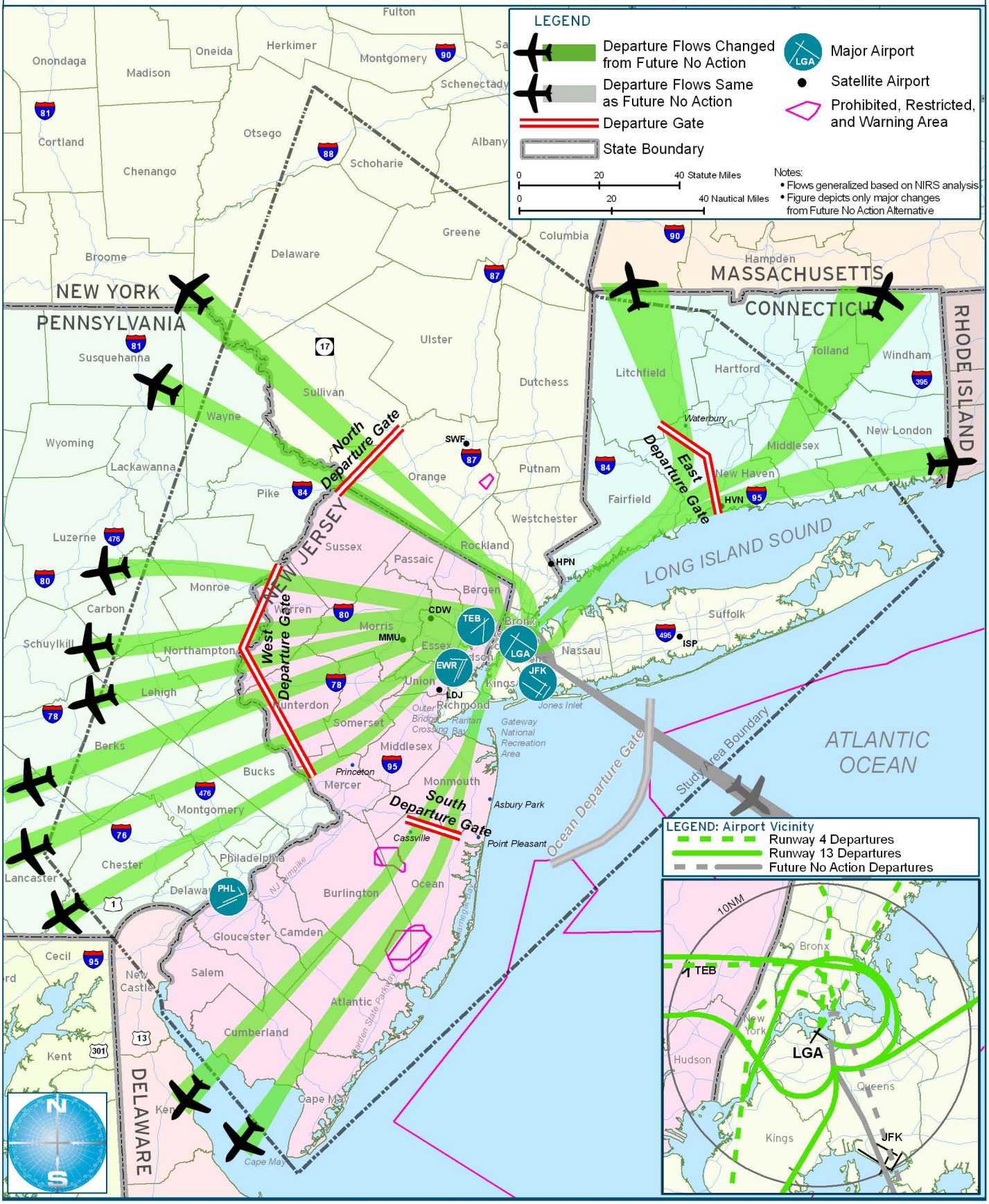
Integrated Airspace Alternative Variation with ICC JFK Major Arrival Flows

Figure 2.25



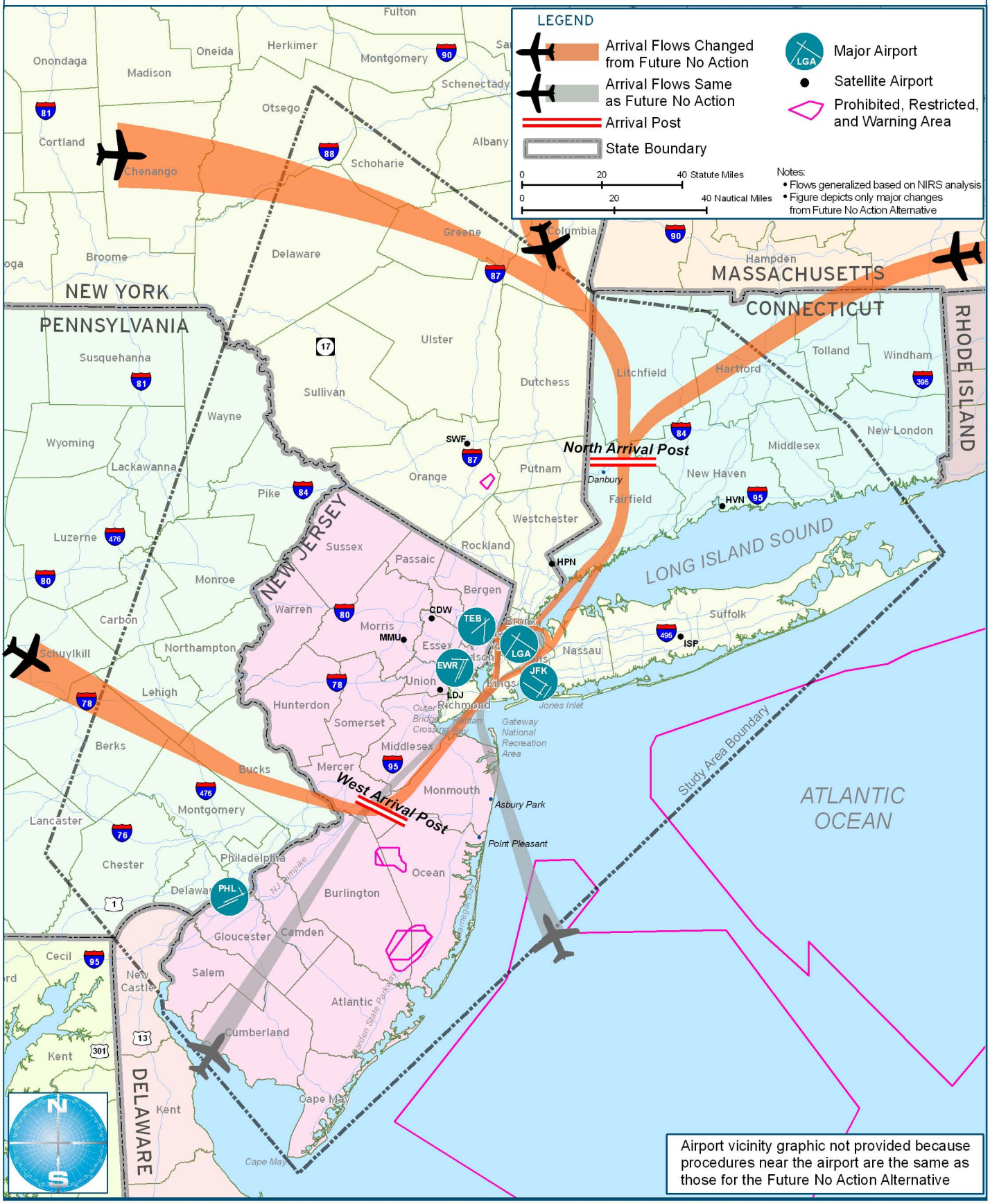
Integrated Airspace Alternative Variation with ICC LGA Major Departure Flows

Figure 2.26



Integrated Airspace Alternative Variation with ICC LGA Major Arrival Flows

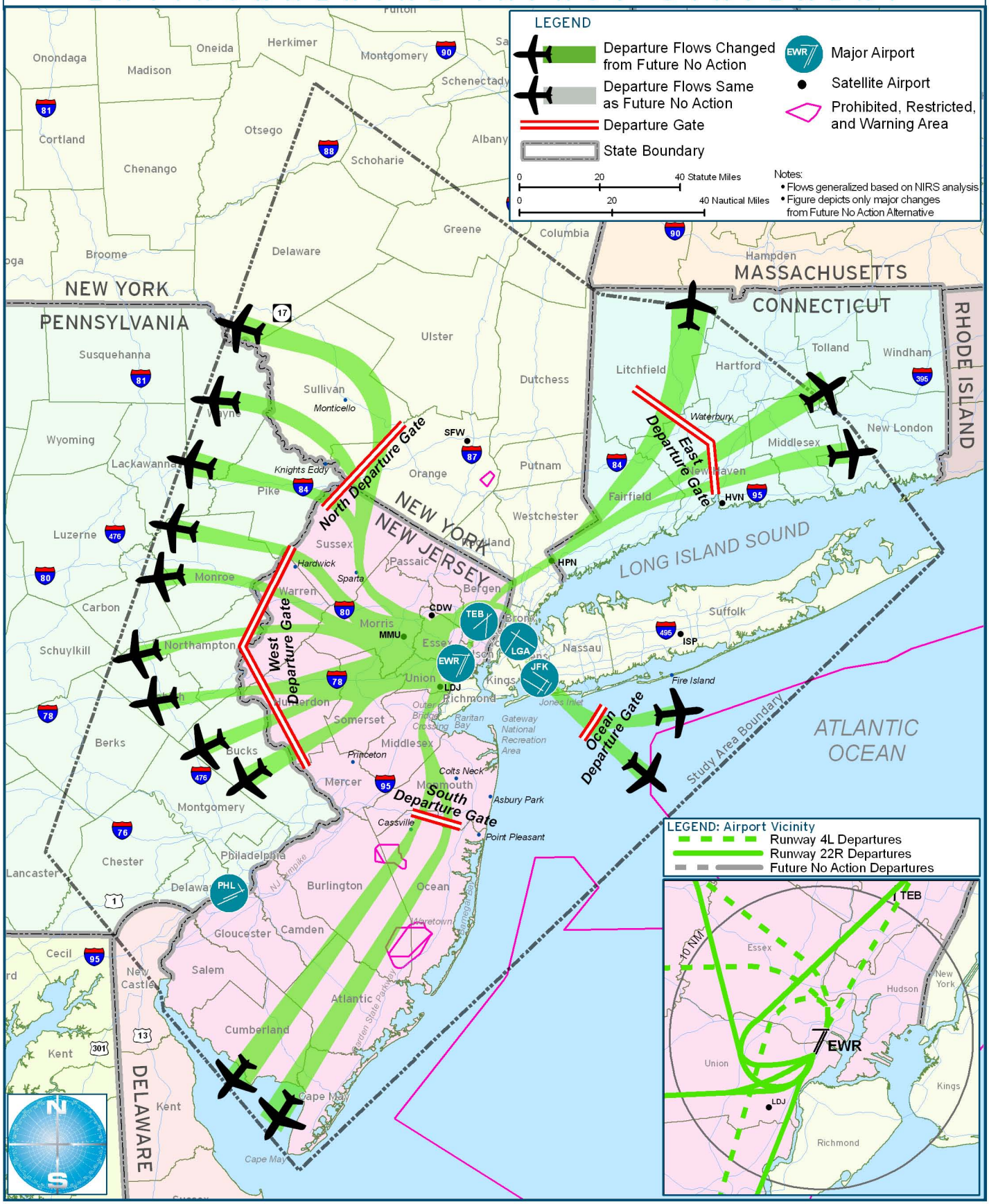
Figure 2.27



Airport vicinity graphic not provided because procedures near the airport are the same as those for the Future No Action Alternative

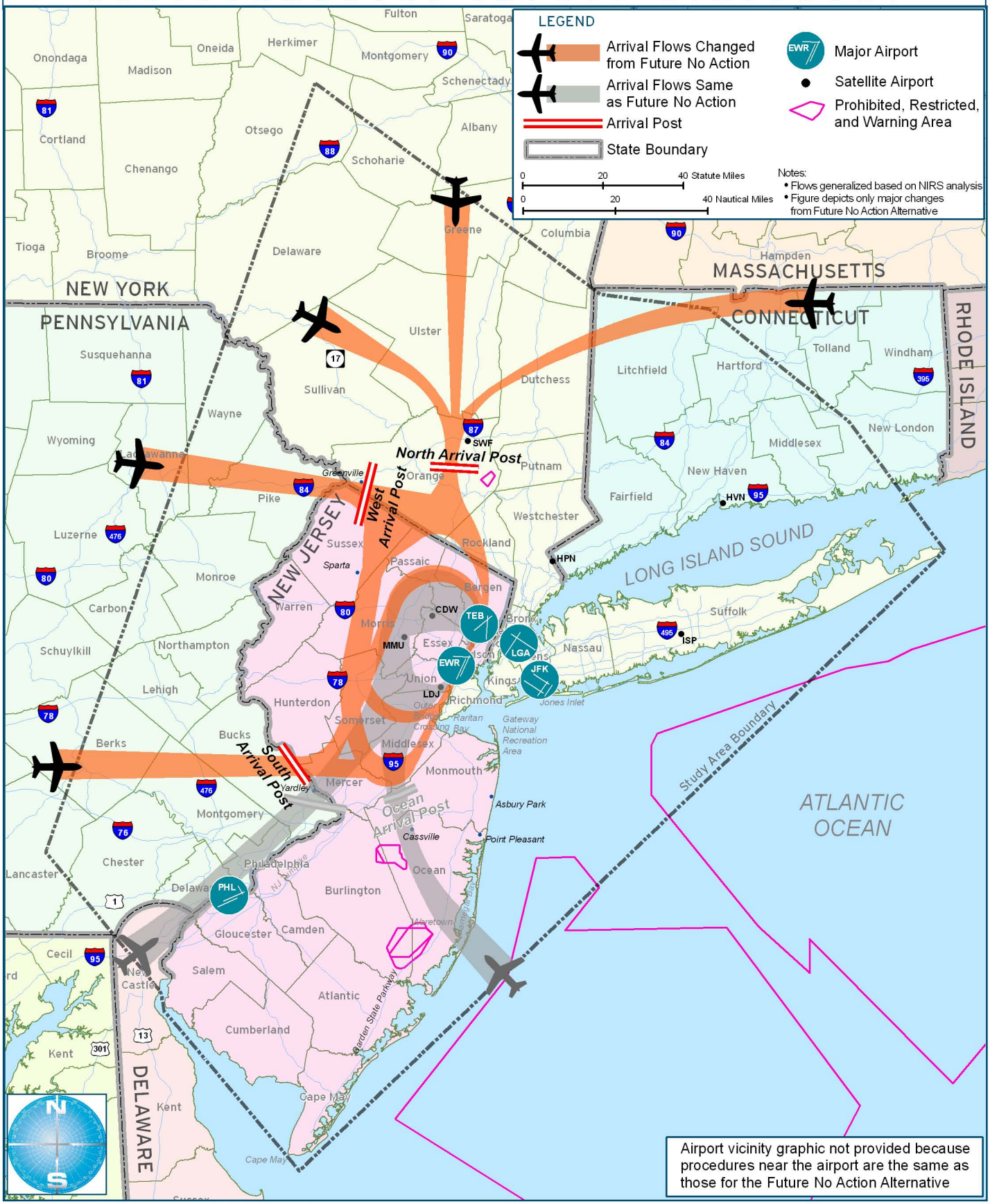
Integrated Airspace Alternative Variation with ICC EWR Major Departure Flows

Figure 2.28



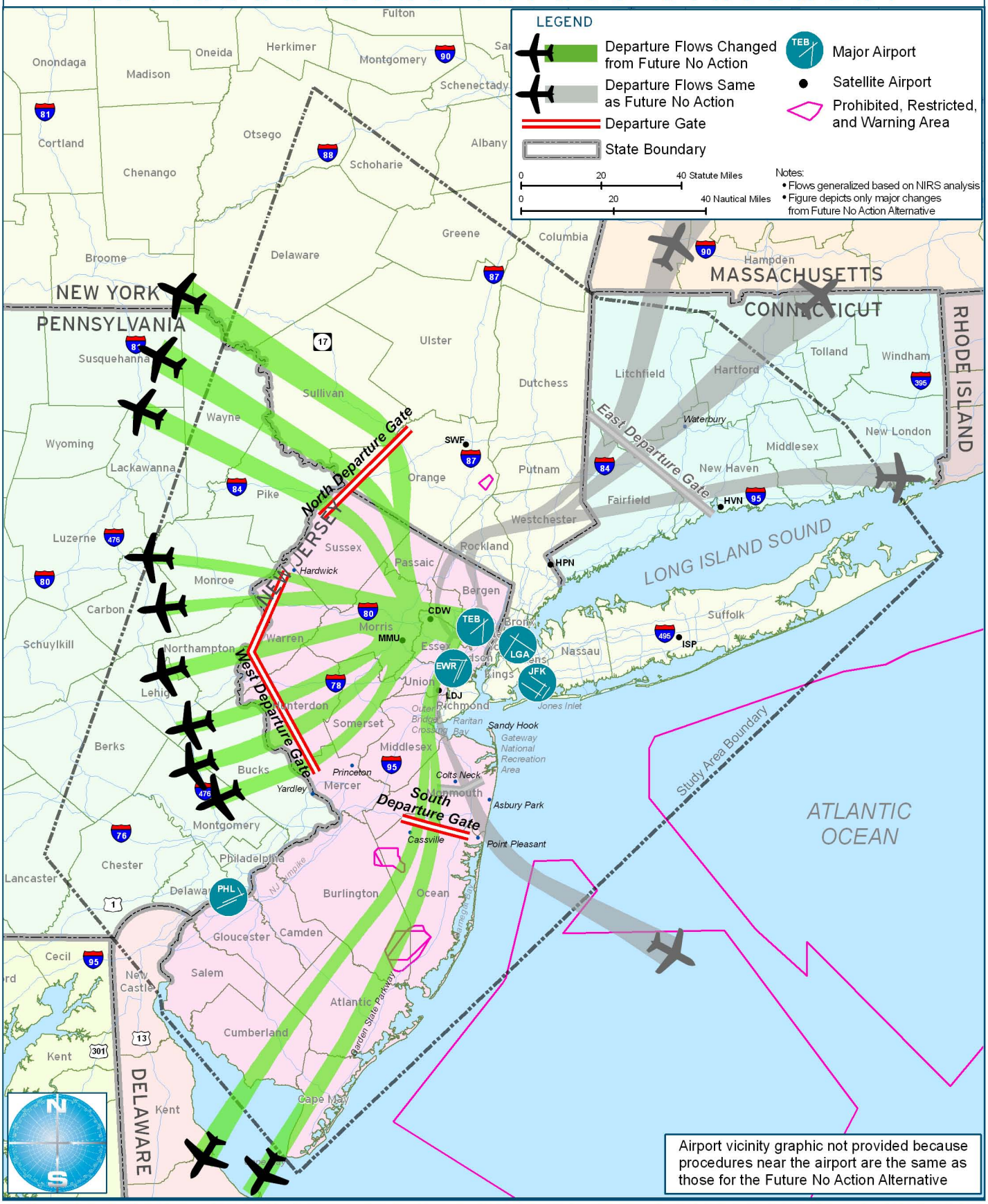
Integrated Airspace Alternative Variation with ICC EWR Major Arrival Flows

Figure 2.29



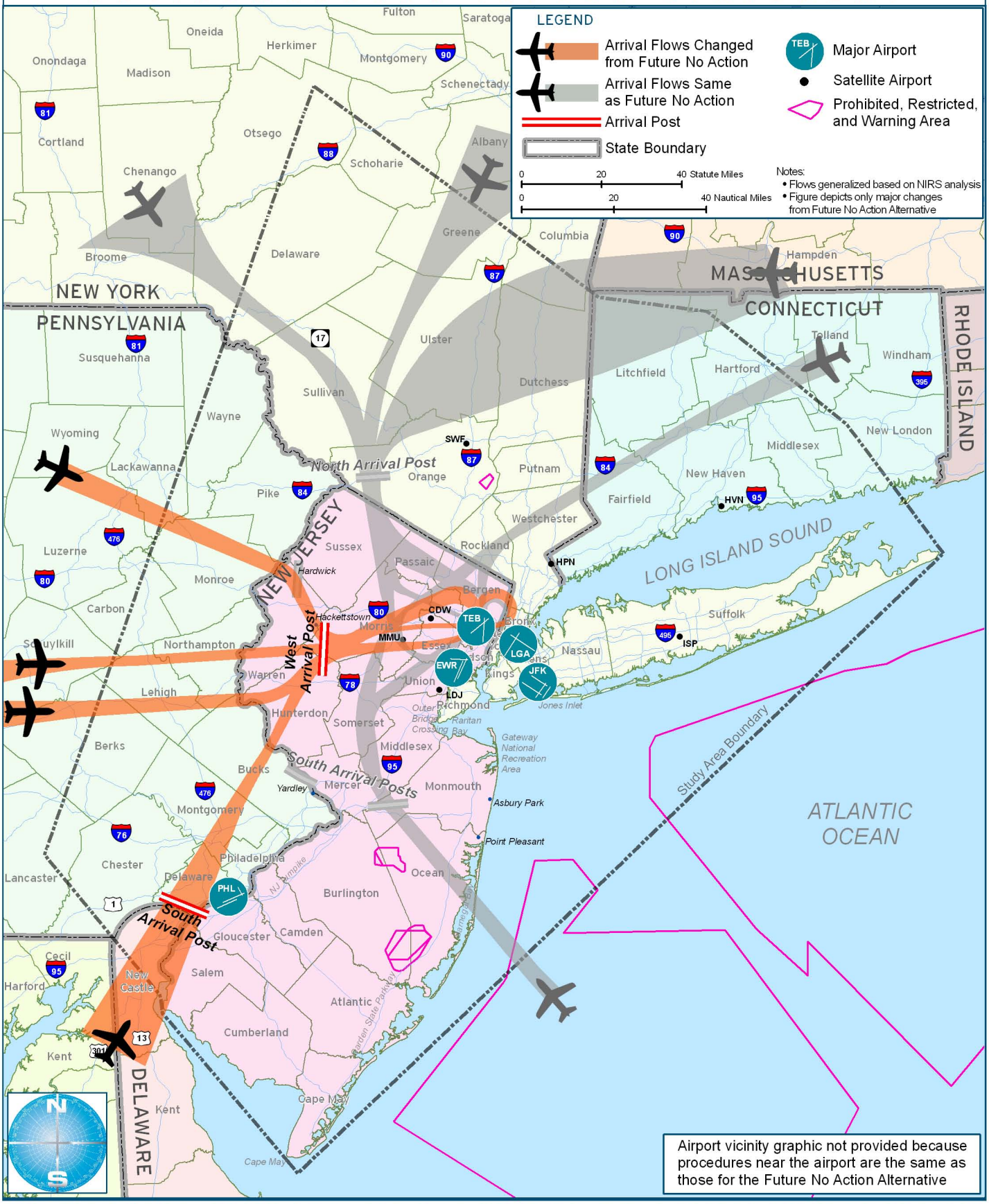
Integrated Airspace Alternative Variation with ICC TEB Major Departure Flows

Figure 2.30



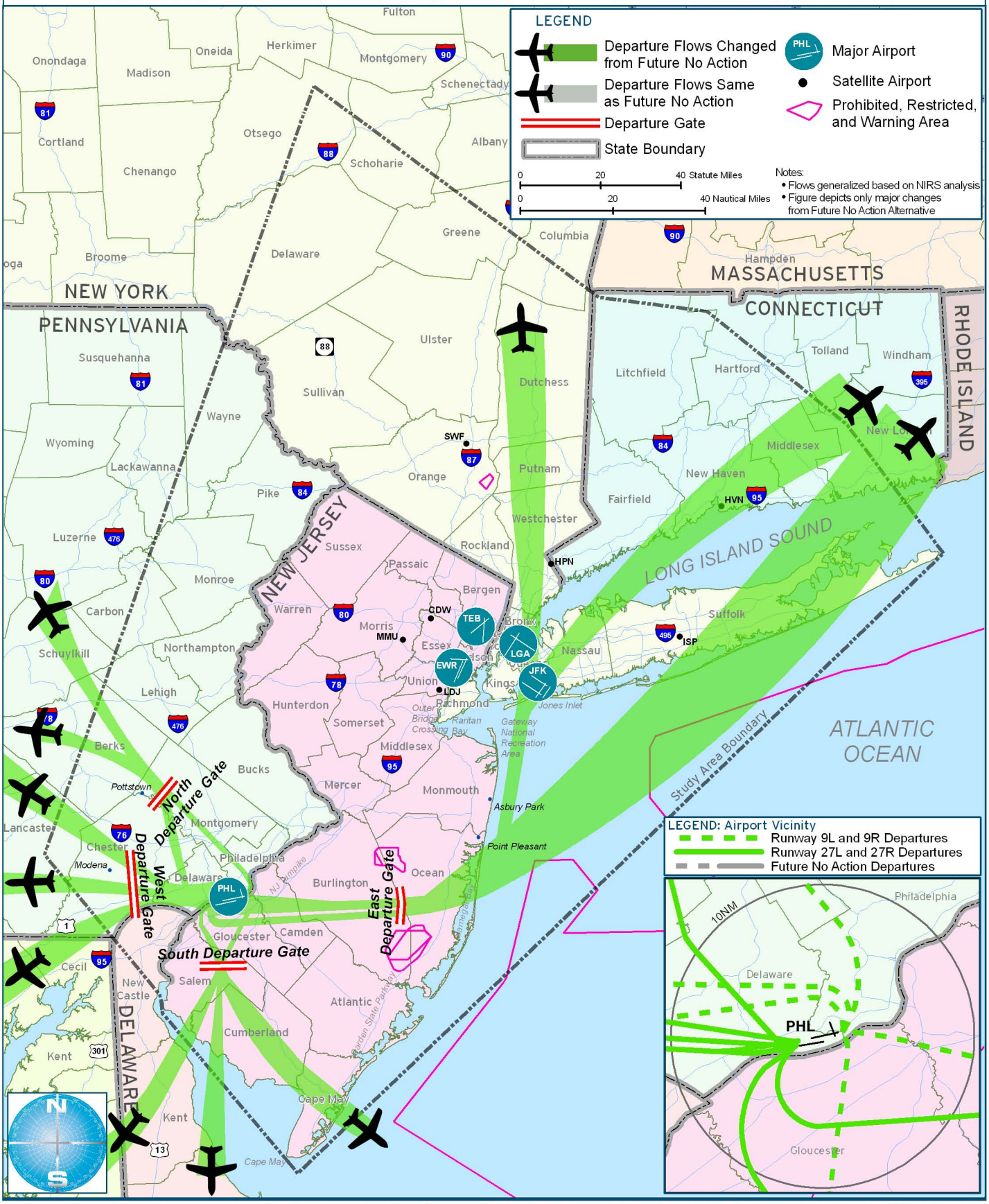
Integrated Airspace Alternative Variation with ICC TEB Major Arrival Flows

Figure 2.31



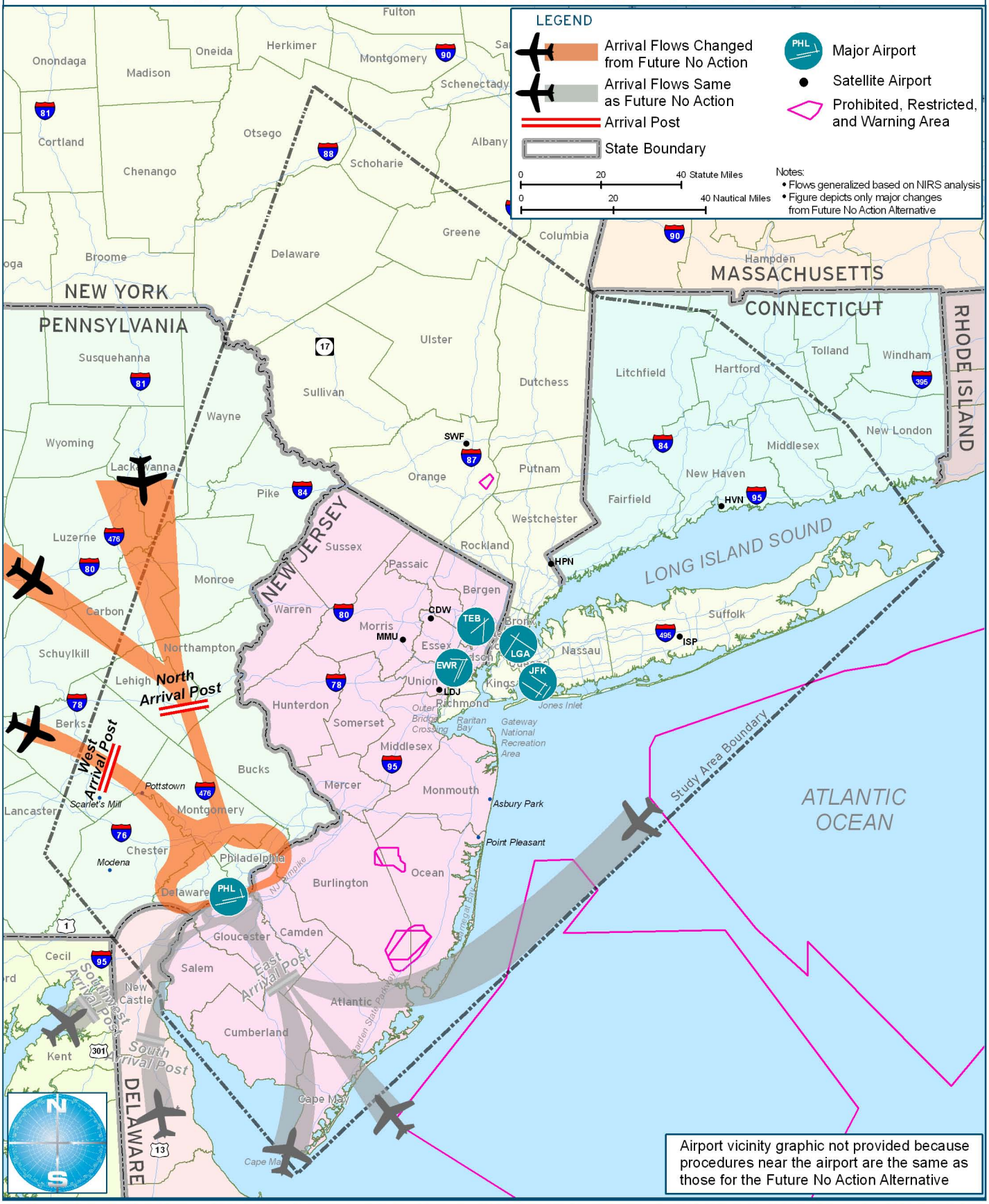
Integrated Airspace Alternative Variation with ICC PHL Major Departure Flows

Figure 2.32



Integrated Airspace Alternative Variation with ICC PHL Major Arrival Flows

Figure 2.33



Appalachian National Scenic Trail - Panel 1

Figure B.1

ENVIRONMENTAL IMPACT STATEMENT

LEGEND

State Boundary
County Boundary
Study Area Boundary
Appalachian Trail
Appalachian Trail Buffer (1.5 Miles)
Difference between Mitigated P.A. and 2011 NA < 3.0 DNL and > -3.0 DNL
Difference between Mitigated P.A. and 2011 NA ≤ -3.0 DNL
Viewpoint
Shelter

0 1 2 Statute Miles
0 1 2 Nautical Miles

Taconic State Parkway
Dutchess County
Litchfield County
Berkshire County
NEW YORK
CONNECTICUT
MASSACHUSETTS
CONNECTICUT
44
22
7
8
S1 S2 S3 S4 S5 S6 S7 S8
V65 V66 V67 V68 V69 V70 V71 V72 V73 V74 V75 V76 V77 V78 V79

Appalachian National Scenic Trail - Panel 2

Figure B.2

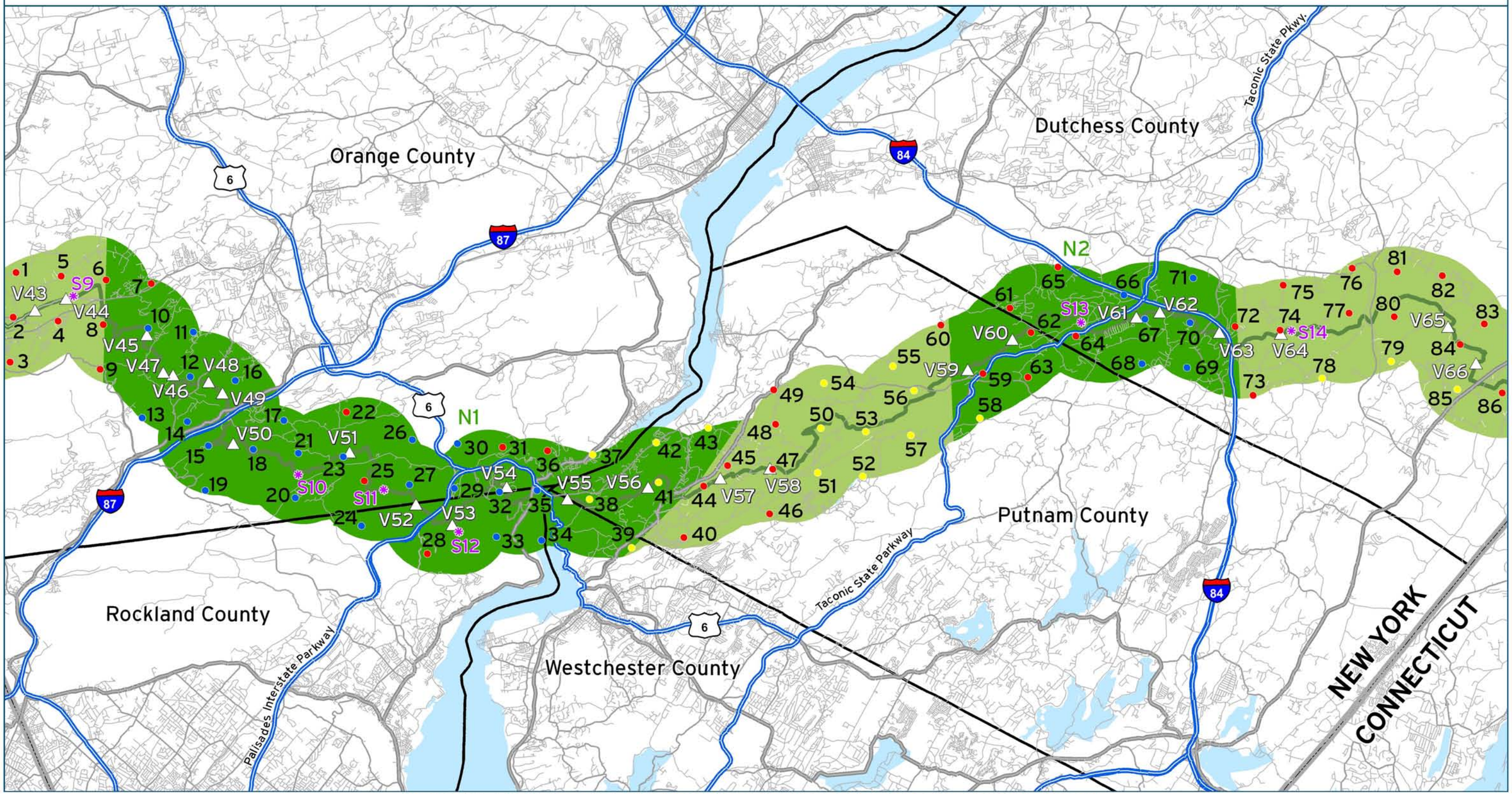
ENVIRONMENTAL IMPACT STATEMENT

LEGEND

- State Boundary
- County Boundary
- Appalachian Trail
- Appalachian Trail Buffer (1.5 Miles)
- Appalachian Trail Buffer (1.5 Miles) / Additional Analysis Completed
- Difference between mitigated IwB and 2011 NA < 3.0 DNL and > -3.0 DNL
- Difference between mitigated IwB and 2011 NA ≤ -3.0 DNL
- Difference between mitigated IwB and 2011 NA ≥ 3.0 DNL
- Viewpoint
- Shelter

0 1 2 Statute Miles

0 1 2 Nautical Miles



Appalachian National Scenic Trail - Panel 3

Figure B.3

ENVIRONMENTAL IMPACT STATEMENT

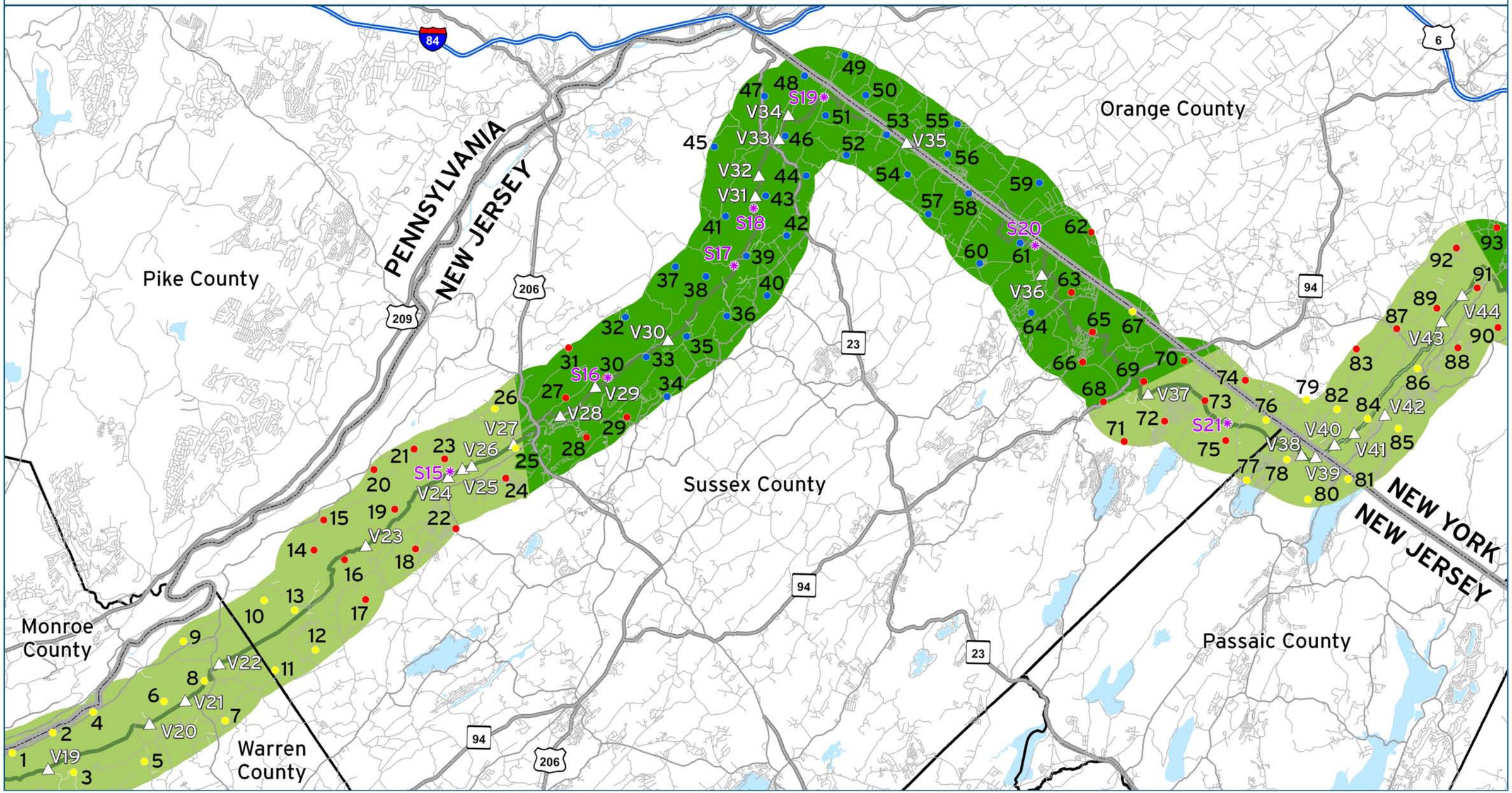
LEGEND

- State Boundary
- County Boundary
- Appalachian Trail
- Appalachian Trail Buffer (1.5 Miles)
- Appalachian Trail Buffer (1.5 Miles) / Additional Analysis Completed
- Difference between mitigated IwB and 2011 NA < 3.0 DNL and > -3.0 DNL
- Difference between mitigated IwB and 2011 NA ≤ -3.0 DNL
- Difference between mitigated IwB and 2011 NA ≥ 3.0 DNL
- Viewpoint
- Shelter

0 1 2 Statute Miles

0 1 2 Nautical Miles

N



Appalachian National Scenic Trail - Panel 4

Figure B.4

ENVIRONMENTAL IMPACT STATEMENT

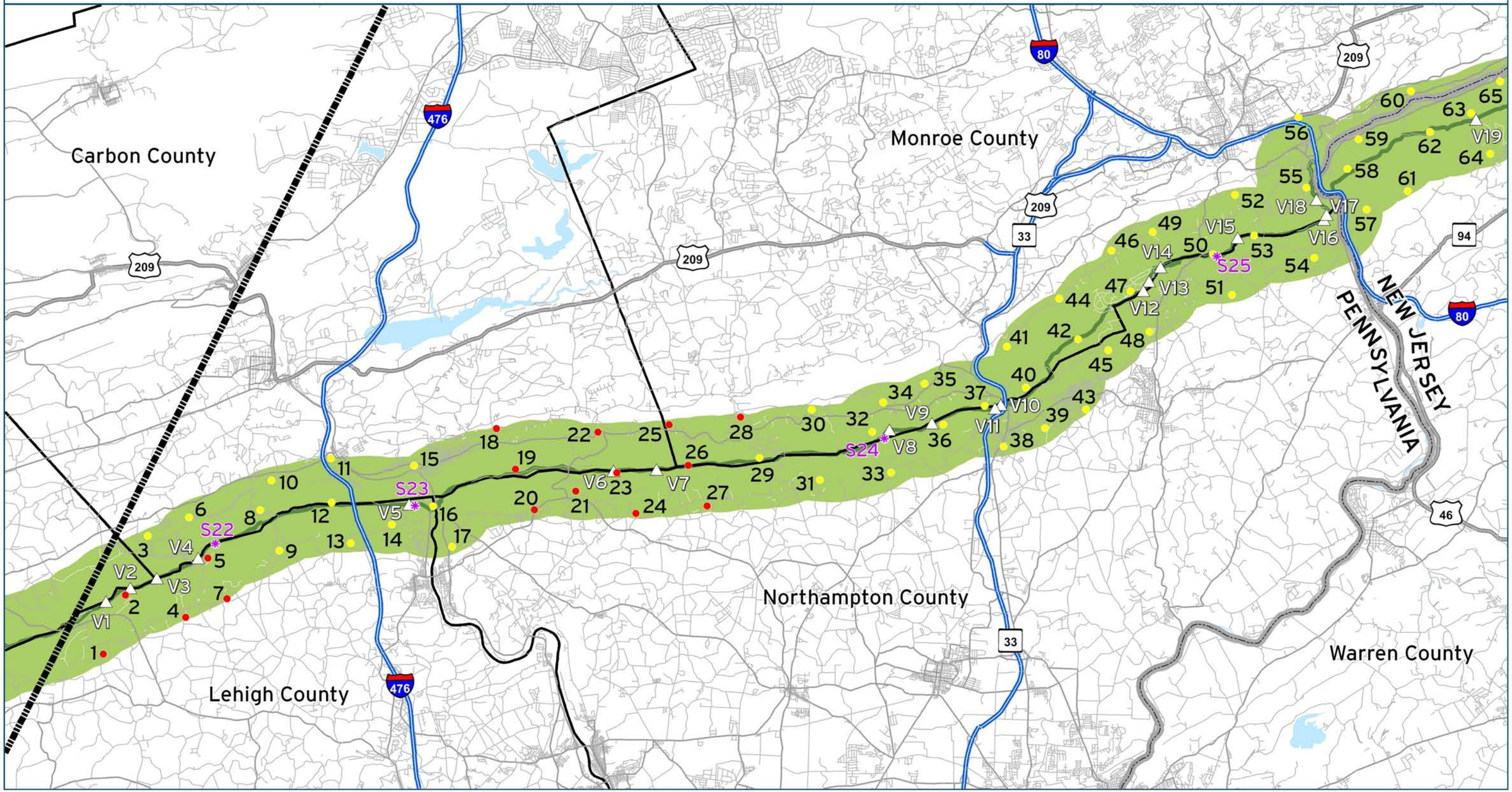
LEGEND

- State Boundary
- County Boundary
- Study Area Boundary
- Appalachian Trail
- Appalachian Trail Buffer (1.5 Miles)
- Difference between Mitigated P.A. and 2011 NA < 3.0 DNL and > -3.0 DNL
- Difference between Mitigated P.A. and 2011 NA ≤ -3.0 DNL
- Viewpoint
- Shelter

N

0 1 2 Statute Miles

0 1 2 Nautical Miles



Section 106 Resources not Identified in the FEIS

It is noted that several sites eligible or potentially eligible for listing on the National Register of Historic Places were inadvertently omitted from the discussion in the FEIS. Information regarding these sites was included in Appendix F.11 *Section 106 Review*. These sites include the following:

The Italianate Rowhouse located at 168-173 Reid Street, Elizabeth New Jersey is within the APE near EWR. Built in 1865, this site was determined eligible for listing under National Register Criterion C as "an excellent and unusually intact exampled of a multi-family dwelling in the Italianate style." Eligibility under Criterion C means that a property is important because it illustrates a particular architectural style or construction technique. The noise analysis showed that the noise exposure level at this location would potentially increase significantly as a result of the 2006 Modifications to Existing Airspace Alternative (56.4 DNL to 65.1 DNL) and the 2006 Integrated Airspace Alternative Variation without ICC (56.4 DNL to 65.0 DNL). Since this site was listed on the NRHP under Criterion C, an increase in noise would not constitute an adverse effect on the Italianate Rowhouse. Additionally, the selected Project would result in a noise exposure level of 61.4 DNL which is below Part 150 compatibility guidelines for residences.

The Sacred Heart Church and School, located at Spring and Bond Streets in Elizabeth, New Jersey, is within the APE near EWR. This site was determined eligible for listing on the National Register under Criterion C as an excellent example of the Gothic Revival style as applied to an ecclesiastical structure. The noise analysis showed that the noise exposure level at this location would potentially increase significantly as a result of the 2006 Modifications to Existing Airspace Alternative (56.3 DNL to 65.3 DNL) and the 2006 Integrated Airspace Alternative Variation without ICC (56.3 DNL to 65.3 DNL). Since this site is listed on the NRHP under Criterion C, an increase in noise would not constitute an adverse effect on the Sacred Heart Church and School. Additionally, the selected Project would result in a noise exposure level of 61.1 DNL which is below Part 150 compatibility guidelines for churches and schools.

A portion of the Central Railroad of New Jersey is also located within the APE near EWR. The section of the Railroad through Elizabeth was determined eligible for listing on the National Register in 1995. An increase in noise would not diminish the integrity of the property's setting and therefore the selected Project would not have an adverse affect on this site.

The Corinthian Yacht Club, along with Springhouse which stands on the same property, is located just west of Governor Printz Park in Essington, Pennsylvania. These two buildings locate in the APE near PHL were found to be National Register eligible because of their significance as standing structures from the 18th and 19th centuries, as well as the archaeological potential. Activities at the Club include sailboat racing and trap shooting. The noise analysis showed that the noise exposure level at this location would potentially increase significantly as a result of the 2006 Modifications to Existing Airspace Alternative (60.3 DNL to 66.3 DNL) and the 2006 Integrated Airspace

Alternative Variation without ICC (60.3 DNL to 66.3 DNL). Since the significance of this site is based on architectural characteristics and archaeological potential, the increase in noise would not create an adverse effect on the on the Corinthian Yacht Club or the Springhouse. Additionally, the selected Project would result in a noise exposure level of 61.5 DNL which is below Part 150 compatibility guidelines for golf courses.

The Linde Air Products Corporation is located at the end of West 2nd Street in Essington, Pennsylvania, just west of the Corinthian Yacht Club and the Printzhof. This site is in the APE near PHL. In 1940 Union Carbide constructed a manufacturing facility to produce bottled gas on this property. The facility appears to be in nearly its original condition. The buildings and smokestack represent a mid-20th century manufacturing facility that may have been of significance during World War II. The site of the Linde Air Products Corporation has been occupied by several different entities over time. As a result of the varied occupants and the fact that this site is close to the Printzhof, the site of the Linde Air Products Corporation may also have archeological significance. The noise analysis showed that the noise exposure level at this location would potentially increase from 56.2 DNL to 64.8 DNL as a result of the 2006 Modifications to Existing Airspace Alternative and from 56.2 DNL to 64.8 DNL as a result of the 2006 Integrated Airspace Alternative Variation without ICC. Since the significance of this site is primarily based on architectural characteristics and archaeological potential, the increase in noise would not create an adverse effect on the on the Linde Air Products Corporation. Additionally, the selected Project would result in a noise exposure level of 57.8 DNL which is below Part 150 compatibility guidelines for general manufacturing land use.

The Westinghouse Village row houses are located on Jansen, Saude, and Seneca Avenues just north of the Westinghouse Industrial Complex in Tinicum Township, Pennsylvania. Westinghouse Village is located in the APE near PHL. Between 1918 and 1920, Westinghouse Electrical Corporation built housing for their workers. The resulting well-designed rowhouses provided a model for industrial worker's housing. The remaining standing 172 units out of the original 192 units are now privately owned. Despite some modernization, the neighborhood, which includes several distinctive Dutch Colonial buildings, retains its overall form. The noise analysis showed that the noise exposure level at this location would potentially increase significantly as a result of the 2006 Modifications to Existing Airspace Alternative (60.3 DNL to 65.4 DNL) and the 2006 Integrated Airspace Alternative Variation without ICC (60.3 DNL to 65.4 DNL). However, the selected Project would only result in a small change in noise (55.1 DNL to 56.4 DNL) and therefore, the selected Project would not create an adverse effect on the on the Westinghouse Village.

The Art Moderne House, located at 246 3rd Street in Essington, Pennsylvania, is within the APE near PHL. The home is considered eligible for the NRHP because of its unusual folk-art interpretation of modern style architecture. The 1930's or 1940's building displays a mix of styles, potentially the creation of an amateur builder. The noise analysis showed that the noise exposure at this location would potentially increase from 59.6 DNL to 67.8 DNL in 2006 as a result of Modifications to Existing Airspace Alternative and from 59.6 to 67.8 DNL as a result of Integrated Airspace Alternative Variation without ICC. The noise analysis showed that the noise exposure level at this

location would potentially increase significantly as a result of the 2006 Modifications to Existing Airspace Alternative (59.6 DNL to 67.8 DNL) and the 2006 Integrated Airspace Alternative Variation without ICC (59.6 DNL to 67.8 DNL).The increase in noise would not create an adverse effect on the on the Art Moderne House since the main criteria for its listing are the artistic architectural style. Additionally, the selected Project would result in a noise exposure level of 60.6 DNL which is below Part 150 compatibility guidelines for residences.

APPENDIX C: Agency Coordination

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Jersey Field Office
Ecological Services
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352
http://www.fws.gov/northeast/njfieldoffice/

In Reply Refer to:
2006-I-0146

JAN 24 2007

Steve Kelley, Airspace Manager
Eastern Terminal Service Area
Federal Aviation Administration, Eastern Region
1 Aviation Plaza
Jamaica, New York 11434-4809

Dear Mr. Kelley:

This responds to your November 16, 2006 request to the U.S. Fish and Wildlife Service (Service) for information regarding federally listed species in the vicinity of seven airports in New York, New Jersey, and Pennsylvania. The Federal Aviation Administration (FAA) has requested nesting locations of the federally listed (endangered) roseate tern (*Sterna dougallii*) and (threatened) piping plover (*Charadrius melodus*) and bald eagle (*Haliaeetus leucocephalus*) in order to assess possible adverse effects to these species as a result of the FAA's proposed New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign (Airspace Redesign).

AUTHORITY

This response is provided pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of endangered and threatened species and does not address all Service concerns for fish and wildlife resources. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*) (NEPA).

BACKGROUND

In June 2006, the Department of the Interior (DOI) commented on the draft Environmental Impact Statement (EIS) for the proposed Airspace Redesign. As noted in the DOI comment letter, low-flying aircraft may adversely affect the federally listed roseate tern, piping plover, or bald eagle by disturbing nesting birds and impacting reproductive success. To protect these species, the Service recommends flight restrictions; specifically, maintaining a minimum vertical

C-1

distance of 2,000 feet above ground level (FAA Advisory Circular 91-36C) or at least 1.0 mile lateral distance[1] from active nesting sites seasonally, as follows:

- from May 1 to September 30 for roseate tern;
- from April 1 to August 15 for piping plover; and
- from January 1 to July 30 for bald eagle.

Although most flights affected by the proposed action travel at high altitudes, nesting roseate terns, piping plovers, and bald eagles may be adversely affected by low-flying aircraft during arrival and departure, and by non-commercial aircraft utilizing the satellite airports included in the Airspace Redesign. Therefore, the Service recommends incorporating the above flight restrictions into the proposed Airspace Redesign, including notification to all airports within the study area.

Section 7(a)(2) of the ESA requires consultation with the Service for any federal action that may affect federally listed species under Service jurisdiction. The Service must review the flight restrictions and concur in writing that Airspace Redesign is not likely to adversely affect listed species. If the FAA cannot incorporate the recommended flight restrictions into the proposed Airspace Redesign, further consultation between the FAA and the FWS will be required to evaluate and minimize adverse effects to federally listed species. Consultation under Section 7 of the ESA must be concluded prior to completion of the NEPA process, and should be summarized in the final EIS.

NEST LOCATIONS

As requested in your November 16, 2006 letter, roseate tern, piping plover, and bald eagle nesting locations within 10 miles of the following airports are enclosed: John F. Kennedy International, LaGuardia, Newark Liberty International, Teterboro, Philadelphia International, Islip Long Island MacArthur, and White Plains/Westchester. As you are aware, this information is confidential and should not be released in public documents. As nesting locations regularly change, the FAA should obtain updated information from the Service annually.

[1] Note that lower vertical distances and/or smaller lateral distances have been deemed sufficient to prevent disturbance to nesting birds under particular circumstances. Through the informal consultation process under Section 7 of the ESA, the Service is available to work with the FAA to refine these recommended distances based on actual noise levels and disturbance potential for particular airports or classes of aircraft.

Please contact Wendy Walsh of my staff at (609) 646-9310, extension 48 if you have any questions regarding federally listed endangered or threatened species, or about the above Service recommendations.

Sincerely,

John C. Staples
Assistant Supervisor

Final Page is Redacted

U.S. Department
of Transportation
**Federal Aviation
Administration**

Eastern Service Center

1701 Columbia Avenue
College Park, Georgia 30337

August 27, 2007

Mr. Clifford G. Day
United State Department of the Interior
Fish and Wildlife Service
New Jersey Field Office
927 North Main Street, Building D
Pleasantville, New Jersey 08232

Dear Mr. Day:

Thank you for your office's letter of January 24, 2007 which provided information to complete the Federal Aviation Administration's (FAA's) analysis of federally listed species for the New York/ New Jersey/Philadelphia Metropolitan Airspace Redesign. We have addressed the comments contained in the US Department of the Interior's (DOI's) letter of June 12, 2006 pertaining to the review of the December 2005 Draft Environmental Impact Statement (DEIS) for the New York/ New Jersey/Philadelphia Metropolitan Airspace Redesign. Both FAA's responses to DOI comments and additional analysis are contained in the Final Environmental Impact Statement which was published July 27, 2007.

We have continued to coordinate with the Fish and Wildlife Service regarding the federally listed species. Two areas of interest expressed by FWS concern whether recommended flight restrictions could be met for overflights in the vicinity of piping plover and bald eagle nesting sites. The flight restrictions provided by FWS for the piping plover consist of maintaining a minimum vertical distance of 2,000 feet above ground level or at least 1.0 mile lateral distance from active piping plover nesting sites. Although the bald eagle has been removed from the endangered species list, we have been notified that we should comply with the National Bald Eagle Management Guidelines. Category G of these Guidelines states "avoid operating aircraft within 1,000 feet vertical of the nest during the breeding season, except where eagles have demonstrated tolerance for such activity."

Transport aircraft require straight-in approaches for at least the last 2,000 feet of their descent. Transport aircraft on departure may make a single turn between 400 feet and 2,000 feet. Due to the landing and takeoff requirements of flight, FAA is unable to comply with flight restriction requirements as provided by DOI. However, FAA's mission places safety of aircraft as the highest priority. Because bird activity can present a hazard to aircraft, it is constantly monitored by air traffic controllers. FAA Order 7110.65 requires controllers to issue advisory information on pilot-reported, tower observed or radar observed and pilot verified bird activity. There are temporary conditions that require temporary changes to operations each day in the national airspace through the use of Notices to Airmen. Significant bird activity is one of the conditions that lead to modified temporary procedures.

Two piping plover nesting locations/zones are within the 5 mile bird study area for John F. Kennedy International Airport (JFK). Under the revised airspace alternatives, aircraft should be no closer to the identified current piping plover nesting sites. In analyzing the nesting zone located closest to JFK, the closest No Action track is directly over the top of the nesting zone at an altitude of approximately 1,046' above ground level (AGL). Under the Preferred Alternative condition, the results are the same – the closest flight track would be directly over the nesting zone at 1,046' AGL.

In addition, we have reviewed the bald eagle nesting locations provided by FWS. There are six nesting zones within the 5 mile bird study area for Philadelphia. The closest flight track to the identified nesting location is the No Action track which is directly over the top of the nesting site at an altitude of approximately 746' AGL. Under the Preferred Alternative condition the results are the same – the closest flight track would be directly over the top of the nesting area at 746' AGL.

For both the piping plover and bald eagle, distances from the closest nesting site to the closest track are the same for the No Action Alternative and Preferred Alternative. The location of the closest piping plover nesting sites is in the immediate approach and departure paths for one of the runways at JFK. Similarly, the location of the closest bald eagle nesting site is in the immediate approach and departure path of a runway at PHL. Therefore, there is no ability to increase separation to these exiting nesting sites. However, because nesting at these distances currently occurs, both piping plovers and eagles have demonstrated a tolerance for such activity. It is our position that the effect of air traffic operations on bird activity will be the same for the No Action Alternative as it would be for the Preferred Alternative resulting in a no affect determination for the identified species.

Additionally, the FAA has identified, during its additional analysis of Section 4(f) resources, several endangered or endangered species in the Wallkill River National Wildlife Refuge. Those listed species are the Indiana bat, bog turtle, dwarf wedgemussels, Mitchell's satyr (extirpated), and American burying beetle (extirpated). Based on a review of the literature, the FAA believes that there will be no affect on the species in the Wallkill River National Wildlife Refuge.

Based on the information above, we are requesting a letter of concurrence from your office on the FAA Endangered Species Act, Section 7, No Affect Determination concerning this study.

Thank you for your assistance.

Sincerely,

Steve Kelley
Airspace Manager

cc: Ms. Wendy Walsh, FWS, Pleasantville, NJ
Mr. Steve Sinkevich, Long Island Field Office, FWS, NY

[AJO2E2B.4]:[LK:lk]:[404-305-5587]:[8/24/07]:[FWS_concurrence_request_R1_082407.doc]

Lee Kyker/ASO/FAA
ATO, Eastern System Support Group

08/29/2007 06:22 PM

To frank_turina@nps.gov
cc
bcc
Subject Follow-up re: NY NJ PHL Airspace Redesign Study

Good Afternoon Mr. Turina,

I wanted to follow-up with you since my phone call earlier this month to confirm your receipt of the Final Environmental Impact Statement (FEIS) for the NY NJ PHL Airspace Redesign Study. As referenced in the FEIS, I've attached additional information which is intended to address the areas of interest of the NPS.


NYNJPHL_Airspace_Redesign_Sect4f_Analysis_082907.pdf


NYNJPHL_Airspace_Redesign_4(f)_Appendix_A_082907.pdf


Figures A1 thu A4.zip

Please do not hesitate to contact me if you have any questions.

Lee Kyker

Lee M. Kyker
Environmental Protection Specialist
Eastern Service Center, System Support Group
Phone: (404) 305-5587
Fax: (404) 305-5199

Lee Kyker/ASO/FAA
ATO, Eastern System Support Group

08/29/2007 06:24 PM

To lflands@gw.dec.state.ny.us
cc
bcc
Subject

Mr. Davies,

I wanted to follow-up with your office to confirm your receipt of the Final Environmental Impact Statement (FEIS) for the NY NJ PHL Airspace Redesign Study. A complete copy of this document is also available on our project web site at : https://www.faa.gov/nynjphl_airspace_redesign

As referenced in the FEIS, I've attached additional information which is intended to address areas of interest to the NY DEC.


NYNJPHL_Airspace_Redesign_Sect4f_Analysis_082907.pdf


NYNJPHL_Airspace_Redesign_4(f)_Appendix_A_082907.pdf


Figures A1 thu A4.zip

If you have any questions, please do not hesitate to contact me.

Lee Kyker

Lee M. Kyker
Environmental Protection Specialist
Eastern Service Center, System Support Group
Phone: (404) 305-5587
Fax: (404) 305-5199

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 31 2007

Mr. Steve Kelley
Federal Aviation Administration
National Airspace Redesign
c/o Nessa Memberg
12005 Sunrise Valley Drive, MS C3.02
Reston, VA 20191

Dear Mr. Kelley:

The Environmental Protection Agency (EPA) has reviewed the final environmental impact statement (FEIS) for the New York/New Jersey/Philadelphia (NY/NJ/PHL) Metropolitan Area Airspace Redesign (CEQ # 20070324) which encompasses the entire state of New Jersey and portions of New York, Connecticut, Delaware and Pennsylvania. The Study Area comprises approximately 31,180 square miles and encompasses all or portions of 64 counties, and hundreds of municipalities. This review was conducted in accordance with Section 309 of the Clean Air Act, as amended (42 U.S.C. 7609, PL 91-604 12(a), 84 Stat.1709), and the National Environmental Policy Act (NEPA).

Project and Alternatives:

The stated purpose of the project is to increase the efficiency and reliability of the airspace structure and Air Traffic Control (ATC) system by making modifications to aircraft routes and air traffic control procedures used in the NY/NJ/PHL Metropolitan Region. In addition to the No Action Alternative, the DEIS analyzes three other alternatives: the Modifications to Existing Airspace Alternative, the Ocean Routing Airspace Alternative, and the Integrated Airspace Alternative (with and without an Integrated Control Complex).

In March 2007, the FAA chose the Integrated Airspace Design with an Integrated Control Complex as the preferred alternative, and released a noise mitigation report on that alternative in April 2007. FAA held several public hearings on its noise mitigation report, and comments were accepted until May 11, 2007.

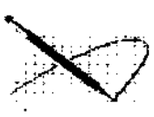
EPA commends the FAA for its commitment to assuring public participation in the NEPA process for the NY/NJ/PHL Metropolitan Area Airspace Redesign. Given the complexity of this project, numerous public hearings during all phases of the process were certainly warranted; FAA aptly met this challenge. Also, the longer comment period on the draft EIS was important for the public to be able to review the document thoroughly.

While we understand the FAA's position that this project does not increase capacity at the airports, EPA is still concerned that a new airspace design will induce growth at the airports wanting to make use of the increased efficiency and reliability of the airspace structure. We are particularly concerned about the air quality, noise and other impacts this potential growth could have on Environmental Justice areas in the vicinities of the airports. As such, we request that the FAA keep us informed of any airport expansions or redesigns, because EPA would like to be involved in any planning and NEPA processes as soon as possible.

Thank you for the opportunity to comment. Should you have any questions concerning this letter, please contact Lingard Knutson of my staff at (212) 637-3747.

Sincerely yours,

John Filippelli, Chief
Strategic Planning and Multi-Media Programs Branch



Steve Kelley /AEA/FAA
09/05/2007 11:09 AM

To Daphne Fuller/AWA/FAA@FAA, Lisa Holden/AWA/FAA@FAA, Edie Parish/AWA/FAA@FAA, Lee Kyker/ASO/FAA@FAA, Pete CTR
cc
bcc
Subject Fw: ER # 2006-0727-042

Steve Kelley
Manager, Airspace Redesign
Eastern Terminal Services
1 Aviation Plaza
Jamaica, NY 11434
Tel: 718-553-4558
Fax: 718-995-5687

-----Forwarded by Steve Kelley/AEA/FAA on 09/05/2007 11:07AM -----

To: Steve Kelley/AEA/FAA@FAA
From: "McLearen, Douglas C" <dmclearen@state.pa.us>
Date: 09/05/2007 11:06AM
Subject: ER # 2006-0727-042

Dear Mr. Kelly:

It is the opinion of the Pennsylvania SHPO (Bureau for Historic Preservation) that you have completed your Section 106 consultation requirements for the following project:

New York - New Jersey Airspace Redesign

If you have any additional comments or questions, please direct them to the project reviewer, Ms. Susan Zacher (717) 783-9920.

Sincerely,

Douglas C. McLearen
Pennsylvania Historical & Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093

Phone: (717) 772-0925
Fax (717) 772-0920

dmclearen@state.pa.us

U.S. Department
of Transportation
Federal Aviation
Administration

Eastern Service Center

1701 Columbia Avenue
College Park, Georgia 30337

September 5, 2007

Mr. David Stilwell
Field Supervisor
New York Field Office
3817 Luker Road
Cortland, NY 13045

Dear Mr. Stilwell:

The purpose of this letter is to provide additional information concerning the potential noise and visual impacts of the New York/New Jersey/Philadelphia Metropolitan Airspace Redesign on the piping plover and roseate tern. In response to our letter of August 27, 2007, to Mr. Clifford G. Day in the New Jersey Field Office of the U. S. Fish and Wildlife Service, staff asked the FAA whether the airspace redesign project would result in more aircraft flights over existing piping plover nesting sites near airports at altitudes lower than 2,000 feet.

Generally speaking there is no potential for the airspace redesign project to result in more flights because airspace redesign will not cause or induce growth in air traffic. Air traffic is forecast to increase in the future in the study area with or without the proposed project. Airspace redesign is needed to increase the efficiency and reliability of the airspace structure and air traffic control system, thereby accommodating growth while enhancing safety and reducing delays in air travel.

As discussed in our letter to your colleague Mr. Day in the New Jersey Field Office, we examined the distance from existing piping plover nesting sites to the closest flight track today as well as the distance from the identified nesting sites to the closest flight track under the Preferred Alternative at each of the airports where such sites were identified.

The location of the closest piping plover nesting sites at one airport is in the immediate approach and departure paths for one of the runways. Therefore, we do not have the ability to move the flight track higher to increase the distance from the sites. Under the preferred alternative for airspace redesign, aircraft should be no closer to the current piping plover nesting sites as identified. Indeed, the fact that nesting currently occurs at these distances demonstrates that piping plovers have a tolerance for such activity.[1]

[1] Krausman, P.R. M.C. Wallace, D.W. DeYoung, W.E. Weisenerger, and C.L. Hayes. 1993. The effects of low-altitude jet aircraft on desert ungulates. International congress: Noise as a Public Health Problem 6:471-478.

Turning to the request for further analysis of the potential for more planes flying over identified breeding areas below the 2000' altitude, FEIS Section 2.5.8 describes the changes in arrival and departure routings at airports under the preferred alternative. Although the preferred alternative includes some low altitude changes to maximize the limited runway capacity at airports in the study area, the FEIS clearly indicates that there would be no major changes in low altitude flight paths and runway usage at the airports that have nearby piping plover nesting sites

In support of that conclusion, we have provided the attached table summarizing our analysis of the overflights at each of the nesting sites that you provided. You will note that in nearly all cases the *Preferred Alternative* **reduces** the number of flights that would typically pass through the zone of interest surrounding each nesting site. The one exception is a Bald Eagle nesting site very near the Philadelphia International Airport where the the p[referred alternative would cause an increase in the number of daily flights by 0.2 per day (about 1 extra flight every five days) for an increase of 1.4%.

Neither the Fish and Wildlife Service, the Federal Aviation Administration, nor the airport owner want aircraft to fly near birds. JFK has a Wildlife Management Plan to discourage bird activity in the vicinity of the airport. FAA Advisory Circular 150/5200-33A, Hazardous Wildlife Attractants on or near Airports, recommends a distance of 5 statute miles between the farthest edge of the airport's airport operating area and the hazardous wildlife attractant. JFK also has a Bird Hazard Task Force of which FWS is a member. It is through JFK's Wildlife Management Plan that FWS's separations standards are sought to maintain both avian protection and aviation safety. In addition, there is a Memorandum of Agreement between the FAA, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes.

This Memorandum of Agreement (MOA) acknowledges each signatory agency's respective missions. Through this MOA, the agencies establish procedures necessary to coordinate their missions to more effectively address existing and future environmental conditions contributing to aircraft-wildlife strikes throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety, while protecting the Nation's valuable environmental resources. Aircraft-wildlife strikes are the second leading causes of aviation-related fatalities. Globally, these strikes have killed over 400 people and destroyed more than 420 aircraft. While these extreme events are rare when compared to the millions of annual aircraft operations, the potential for catastrophic loss of human life resulting from one incident is substantial. The most recent accident demonstrating the grievous nature of these strikes occurred in September 1995, when a U.S. Air Force reconnaissance jet struck a flock of Canada geese during takeoff, killing all 24 people aboard.

Burger[2] (1986) studied the response of migrating shorebirds to human disturbance and found that shorebirds did not fly in response to aircraft overflights, but did flush in response to

[2] Burger, 1986.

humans and their dogs on the beach. Burger [3](1981) studied the effects of noise from JFK airport on herring gulls (Larus avgentatus) that nested less than 1 kilometer from the airport. Noise levels over the nesting colony were 85 to 100 dBA on approach and 94 to 105 dBA on takeoff. No effects of subsonic aircraft on nesting were noted, although some birds flushed when supersonic aircraft flew overhead and, when they returned, they engaged in aggressive behavior. Groups of gulls tended to loaf in the area of the nesting colony, and these birds remained at the roost when subsonic aircraft flew overhead. Up to 208 of the loafing gulls flew when supersonic aircraft flew overhead. These birds would circle around and immediately land in the loafing flock.

There are studies which have shown that wildlife react to visual stimuli that are below 1,000 feet above ground level (Lamp 1989[4], Bowles 1995[5]). Aircraft overflights and the noise associated with those overflights can directly affect wildlife. However, the existing flight track over the identified piping plover bird nesting site is greater than 1,000 for our Preferred Alternative.

In summary, for the reasons stated above the FAA has determined that the procedural and routing changes associated with the preferred alternative have no potential to affect the piping plover or the roseate tern. . We are including the roseate tern although no nesting sites of the roseate tern have been confirmed in the Study area for many years.

We hope this information has been helpful . We request a letter of concurrence from your office on the FAA Endangered Species Act, Section 7, No Affect Determination for both species for this EIS.

---

[3] Burger, Joanna 1981 Effects of Human Disturbance on Colonial Species, Particularly Gulls
Joanna Burger *Colonial Waterbirds*, Vol. 4, 1981 (1981), pp. 28-36
doi:10.2307/1521108

[4] Lamp, R.E. 1989. Monitering the Effect of Miltary Air Operations at Naval Air Station Fallon on the Viota of Nevada. Nevada Department of Wildlife, Reno.

[5] Bowles, A.E. 1995. Responses of Wildlife to Noise. Pages 109-156 in R.L. Knight, and K.J. Gutzwiller, editors. Wildlife and Recreationists: Coexistence Through Manangement and Research. Island Press, Covelo, CA.

Other references:
Abundance and Distribution of Migrant Shorebirds in Delaware Bay,
Kathleen E. Clark, Lawrence J. Niles, Joanna Burger
The Condor, Vol. 95, No. 3 (Aug., 1993), pp. 694-705

BURGEJR., 1991. Foraging behavior and the effect of
human disturbance on the Piping Plover Charadrius
melodus. J. Coastal Res. 7:39-52.
BURGERJ,. , ANDM . GOCHFELD1. 991. Human activity

U:\Project Correspondence\NY NJ PHL Airspace Redesign Folder#2\Coordination - Fed Agencies\FWS_ltr_090507.doc

Thank you for your assistance.

Sincerely,

for Steve Kelley
Airspace Manager

cc: Ms. Wendy Walsh, FWS, Pleasantville, NJ
Mr. Michael T. Chezik, DOI, Office of Environmental Policy and Compliance
Mr. Steve Sinkevich, Senior Fish & Wildlife Biologist

Lynne Pickard /AWA/FAA
AEE-002, Environment and Energy

09/05/2007 10:46 AM

To Lee Kyker/ASO/FAA@FAA, Daphne Fuller/AWA/FAA@FAA, Donna Warren/AWA/FAA@FAA, Edie Parish/AWA/FAA@FAA, Lisa Holden/AWA/FAA@FAA,
cc
bcc
Subject DOT 4(f) Consultation with DOI/NPS

As I verbally informed you yesterday, Karen Trevino, Manager of the NPS Natural Sounds Program and designated coordinator of NPS comments on FAA NEPA reviews with respect to aviation noise impacts on national parks, called me yesterday to say that she had reviewed our additional analysis over the weekend and NPS has no further comments on the NY-NJ-PHL airspace redesign EIS. She was preparing a letter confirming this response, and said she would email an advance copy.

Lynne Sparks Pickard
Deputy Director
Office of Environment and Energy
Federal Aviation Administration
Tel. 202 267-3577
Fax 202 267-5594
lynne.pickard@faa.gov

C-18

United States Department of the Interior

FISH AND WILDLIFE SERVICE

In Reply Refer to:

2007-I-0146

New Jersey Field Office
Ecological Services
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352
http://www.fws.gov/northeast/njfieldoffice/

Steven Kelley, Airspace Manager
Eastern Service Center, Federal Aviation Administration
1701 Columbia Avenue
College Park, Georgia 30337

Dear Mr. Kelley:

This responds to your August 27, 2007 request to the U.S. Fish and Wildlife Service (Service) for concurrence that the Federal Aviation Administration's (FAA) proposed New York/New Jersey/Philadelphia Metropolitan Airspace Redesign is not likely to adversely affect federally listed species or to disturb the bald eagle (*Haliaeetus leucocephalus*).

The proposed action is to redesign the airspace in the metropolitan area, including developing new routes and procedures to take advantage of improved aircraft performance and emerging air traffic control technologies. The proposed action does not include any physical construction or development of facilities. Direct FAA action would be required, including the design, development, implementation, and use of new or modified air traffic control procedures and reconfigured airspace. The proposed Airspace Redesign would primarily affect air traffic to and from five major airports (John F. Kennedy International, LaGuardia, Newark Liberty International, Teterboro, and Philadelphia International), as well as 16 satellite airports.

AUTHORITY

This response is pursuant to Section 7 the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA), and the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act). Comments are also provided pursuant to the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 703-712) and the National Environmental Policy Act (83 Stat. 852; 42 U.S.C. 4321 *et seq.*)

FEDERALLY LISTED SPECIES

The Service concurs with the FAA's determination that the proposed action will have no effect on the federally listed (endangered) Indiana bat (*Myotis sodalis*) or dwarf wedgemussel (*Alasmidonta heterodon*), (threatened) bog turtle (*Clemmys muhlenbergii*), or two extirpated species: Mitchell's satyr (*Neonympha m. mitchellii*) and American burying beetle (*Nicrophorus americanus*).

The FAA determined in its August 27, 2007 correspondence to the Long Island Field Office that the proposed airspace redesign would have "no effect" on the piping plover (*Charadrius melodus)* or roseate tern, (*Sterna dougallii)* and requested Service concurrence with that determination. The correspondence from FAA indicates that it is unable to comply with the Service's "flight restriction requirements" of maintaining a minimum vertical distance of 2,000 feet above ground level or at least 1.0 mile lateral distance from active piping plover nesting sites. Based on the best available information concerning piping plover and roseate tern breeding on the south shore of Long Island, including areas in the proximity of John F. Kennedy Airport, however, we concur that the birds have largely acclimated to this activity. Therefore, a finding of "not likely to adversely affect" is appropriate as this evidence suggests that any effects to the birds from noise associated with flight operations are expected to be insignificant and are not anticipated to cause take.

Except for the above-mentioned species, no other federally listed or proposed threatened or endangered flora or fauna under Service jurisdiction are known to occur in the Airspace Redesign action area. If additional information on listed and proposed species becomes available or if project plans change, this determination may be reconsidered.

BALD EAGLE

The bald eagle was removed from the federal List of Endangered and Threatened Wildlife effective August 8, 2007. The bald eagle continues to be protected under the federal Eagle Act and Migratory Bird Treaty Act. The bald eagle also remains a State-listed species in both New Jersey and Pennsylvania. For the continued protection of bald eagles, and to ensure compliance with federal and State laws, the Service recommends managing bald eagles in accordance with the National Bald Eagle Management Guidelines and all applicable State regulations.

The National Bald Eagle Management Guidelines contain a recommendation to avoid operating aircraft within 1,000 feet of bald eagle nests during the breeding season, except where birds have demonstrated tolerance for such activity. Your August 27, 2007 letter states that arriving and departing flights at Philadelphia International Airport currently pass directly over eagle nesting areas at altitudes as low as 746 feet above ground level. Under the proposed Airspace Redesign, conditions would remain the same; the closest flight track would be directly over a nesting area at an altitude of 746 feet. The Service concurs with your conclusion that bald eagles in the vicinity of Philadelphia International Airport are generally acclimated to aircraft operating along current

flight paths and at current altitudes and would not be disturbed by the proposed air-space redesign.

To ensure continued compliance with the Eagle Act and State laws, the Service recommends that the FAA work with the States of New Jersey and Pennsylvania to monitor the response of bald eagles upon implementation of the Airspace Redesign. In particular, the monitoring effort should be designed to assess: (1) the potential for new, low-level flight paths to disturb[1] bald eagles at nesting, foraging, and communal roosting areas where birds are less likely to be acclimated to associated noise levels; (2) the potential for new flight paths to disturb eagles at different times of the day or year than under existing conditions; and (3) the increased potential for disturbance as air traffic increases within the Airspace Redesign Study Area.

Endangered and Nongame Species Program
Division of Fish and Wildlife
2201 Route 631
Woodbine, New Jersey 08270
(609) 628-2103

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
(717) 787-4250

If monitoring reveals that bald eagles are being disturbed by low-flying aircraft, the FAA should contact the Division of Migratory Birds regarding the Service's proposed Eagle Act permitting program:

U.S. Fish and Wildlife Service
Division of Migratory Birds
300 Westgate Center Drive
Hadley, Massachusetts 01035
(413) 253-8643

OTHER MIGRATORY BIRDS

The Service notes that the FAA's Final Environmental Impact Statement generally incorporated our previous comments and recommendations regarding migratory birds, and presents a much-improved analysis of potential changes in aircraft-bird collisions as a result of the proposed rerouting of air traffic. The Service recommends that the FAA continue to consider potential impacts on migratory bird concentration areas (*e.g.*, wetlands, coasts, rivers, wildlife refuges) in routing aircraft below 3,000 feet in altitude (mainly arrivals and departures).

[1] "Disturb" means to agitate or bother a bald eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering its normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (*Federal Register* Vol. 72, No. 107, June 5, 2007).

NATIONAL WILDLIFE REFUGES

As noted in previous comments provided for the FAA Draft Environmental Impact Statement by the Department of the Interior, there are still concerns related to insufficient data on noise impacts as they relate to National Park Service units and the other listed Section 4(f) resources, including units of the National Wildlife Refuge System in New York, New Jersey, and Pennsylvania. It was recommended in those comments that "FAA perform a more thorough analysis of impacts to National Park Service units and other listed Section 4(f) resources, using the correct guidelines and appropriate metrics, then re-evaluate the issue of 4(f) use" and we do not believe this has been done yet specific to National Wildlife Refuges.

CONCLUSION

The Service appreciates the cooperation of the FAA in evaluating the potential effects of the proposed Airspace Redesign on federal trust resources including federally listed species, the bald eagle, other migratory birds, and National Wildlife Refuges. Please contact Wendy Walsh (Wendy_Walsh@fws.gov) of my staff at (609) 646-9310, extension 48, or Steve Sinkevich (Steve_Sinkevich@fws.gov) of the Service's Long Island Field Office at (631) 776-1401, if you have any questions or require further assistance.

Sincerely,

John C. Staples
Acting Supervisor

C-22

Appendix D – Comment Letters on the FEIS

OPEIS #2

Steve Kelley
Manager, Airspace Redesign
Eastern Terminal Services
1 Aviation Plaza
Jamaica, NY 11434

Dear Mr. Kelley,

We have reviewed the NY / NJ / PHL Metro Airspace Redesign draft EIS "Noise Mitigation Report" and the "Operational Analysis of Mitigation of the NY/ NJ / PHL Airspace Redesign" and appreciate the opportunity to offer comments on the final Environmental Impact Study.

Regarding section 8 of the "Operational Analysis of Mitigation of the NY/NJ/PHL Airspace Redesign" concerning the EWR Night-time Ocean Routing, we believe that this routing would cause a significant operational burden to UPS. It would also likely cause a significant increase in emissions over parts of Staten Island area and add significant complexity to the New York Metro Air Traffic Area. The additional 7.4 minutes of flight time (as estimated by the FAA) required for each of our departures that would be required to fly the procedure would generate considerable costs as well as the potential for significant down-line disruption to our network.

The proposed routing would impact a total of 19 of the most critical flights in our system each week (under UPS' current operating schedule) approximately 50% of the time, based on current runway utilization. Variable costs of the additional flight time alone are conservatively estimated at $450,000 to $500,000 per year based on a $2.11 per gallon fuel cost. True cost of the additional flight time would be much higher were we to consider fixed ownership costs. The down-line impact cost to our network is not precisely estimatable at this time, but suffice it to say that shipments out of New York for our customers are of significant economic importance.

We previously offered two alternatives to the EWR Night-time Ocean Routing. The first was to simply handle the night time and day time operations the same. We can, however, no longer support our second alternative, which was to not start the use of the routing until midnight. This summer has seen a significant increase in the number of operations at JFK. For too many reasons to mention here, we have often seen significant levels of traffic operating at JFK until well after midnight. This traffic was not considered in the design of the EWR Night-time Ocean Routing and would, in our opinion, likely result in unacceptable levels of delay to both airport's departures.

Thank you for your consideration. Should you have any questions as to UPS' stance on this or any other aspect of the proposed noise mitigation strategy, please feel free to contact me.

Tim Stull
Manager ~ Air traffic Systems
UPS
502-359-5704
tstull@ups.com

D-1

PO Box 603
Ridgefield, Ct.06977
August 22, 2007

Mr Steve Kelley
Federal Aviation Administration
One Aviation Plaza, 4th Floor
Jamaica, NY 11434

Re: Comments on the NY/NJ/Phil Airspace Redesign FEIS

Dear Mr Kelley,

In accordance with 40 CFR 1503.1(b) set below are comments on the FEIS especially those parts not made available during the public comment period on the DEIS. These comments are directed to omissions and errors which need to be addressed in a supplemental DEIS.

There are three events which manifest themselves after the DEIS was released and will significantly effect the environmental analysis in the EIS. 40 CFR 1502.9(c)(ii) provides that there should be a full consideration of them in a supplement. These events include: [A] the PANYNJ operation of Stewart airport: [B] the essentially static number of operations at EWR for the last 4 years to date contrary to the EIS forecast: and [C] the increasing load factor on aircraft in place of expanded airline operations and its effects on operation count projections.

Each of these events will contribute to the current operations levels at EWR not coming even near the 2011 forecast of 524,140 operations. This number is critical in the operational and environmental analysis because almost all of its metrics are predicated on an annual average day in 2011 or the 90th percentile day in 2011, each of which is directly calculated from the forecast of 2011 annual operations.

The Mitre operations analysis in Appendix C highlights the central importance of 2011 operations levels with the following discussion on page xxvi:

> " Newark shows the greatest benefits from the Integrated Airspace with ICC alternative{the preferred alternative}, since the benefits associated with the use of *dual arrival streams* dominate the increased flying distance."..... "However, it must be noted that the penalties caused by longer routes are a fixed cost that is proportional to the number of flights." ....."there is a break-even point in traffic levels. ....somewhere between the median and 90th percentile day in the 2011 forecast". **"If the forecast demand levels do not materialize, the [preferred alternative] may not reach the break-even point".**

D-2

(A) You have stated at public meetings and in the DEIS responses that the new ownership situation at Stewart was not being considered further in the EIS because " the lease has not been signed yet." This implies the takeover is still too uncertain and speculative to be considered as "data". However on July 2007 when the FEIS was still be written, the PA's Board of Directors certified to the public so as to satisfy SEC financial reporting requirements that *Stewart is a additional facility of PA*. (see PANYNJ Board of Directors meeting minutes July 26, 2007, Calendar item 12, page 20)

You are undoubtedly aware that the Stewart facilities have already been extensively refurbished in recent years including a new, modern control tower, refurbished runway lighting, extensive taxiway repavement and a direct access road completed to the interstate highway system.

Further in FAA response 1.4.1 it is acknowledged that:

> "Since Stewart is far from the other airports with long runways and has no other large airspace complex constraining it on any other side, it can *expand greatly*..." [Appendix Q, page 7]

It would appear that the PA's announced plan to offload significant air operations from its other metro airports especially EWR will have a significant downward impact on actual operations at EWR by 2011, contributing to the failure to reach the **Break-Even point.**

[B] Several commentators, including NJCAAN in May 10,2007, point 9, have drawn attention to the fact that 2006 actual operations at EWR missed the study forecast by 14%. It has been reported by PA and FAA that EWR operations were:

458,677 in 2000 (study baseline)
440,437 in 2004
440,953 in 2005
444,258 in 2006
443,622 in 12 months ending June 2007

These numbers indicate a clear trend to a static level { a plateau} in operations at EWR contrary to the assumption of continuous growth in operations forecast for 2006 and 2011 in the FEIS. More important, the actual annual average day now is considerably below the baseline number of 1222. In the 12 months ending in June 2007, the AAD was about 1215. As indicated above, the break-even point is between 1436 and 1634 per day (median and 90th percentile of 2011 forecast). The operations forecast assumed a growth rate of 3.5% between 2006 and 2011. At that rate the present operations at EWR will not reach the break-even point by 2011!

[C] Another recent event which is causing EWR operations to increase at a slower rate than predicted in the FEIS is the increasing load factor for airlines. Because of the steep rise in aircraft fuel, competitive pressure from low cost airlines and other economic changes unanticipated in the EIS forecast, airlines have been forced to increase load factors significantly beyond those expected in the EIS studies. Instead of adding additional aircraft, airlines have been adjusting to increased passenger volume by cramming more passengers onto each flight. It would be a simple calculation to quantify the impact of this new trend on the 2011 forecast. This calculation should be done in a supplemental report so that the 2011 forecast may be updated appropriately.

It should be also noted that the 2011 forecast is now out of date. A 5 year forecast is required for aircraft operations in environmental studies by Section 14.4g(2) in Appendix A of Order 1050.1E. The FEIS is being issued in 2007, therefore the appropriate forecast period should be 2012. If the 2011 FEIS forecast were reasonably close to actual operations this shortfall in the prescribed study period might be acceptable. However given the large variations (plateau vs growth) now becoming apparent, the FEIS operations forecasts need to be updated in accordance with Order 1050.1E's requirements for a full and fair discussion [Sections 500a(1), 208a].

[D] The discrepancy between the 2006, 20011 forecasts and the actual operations results can be explained in large part due to the fact that the FEIS studies assume optimal weather conditions (hereinafter "blue sky") for all days in annual averages. The FAA's FEIS response at Appendix Q Section 10.3.2 reports that records show blue sky days exist *only 70%* of the time. Further the FAA 2004 Airport Capacity report shows metrics for calculating the actual decrease in operations throughput for both marginal and instrument [IMC] weather conditions at the airport (EWR). If one applies the adverse weather reductions to the forecast annual operations totals, about 2/3 of the discrepancy between the forecast and actual results can be explained.

Although the blue sky analysis can give important theoretical perspective on the operations capacity situation, in an environmental impact analysis, the effect of adverse weather must be fully disclosed and evaluated to give the Decisionmaker a full and fair discussion of the actual environmental circumstances that will prevail in connection with a proposed action such as the airspace redesign.

The Mitre report referenced in Appendix Q, Section 1.1.8, concerning Analysis of a Severe Weather Scenario, although an important step in the overall analysis is incomplete by itself. Adverse weather can impact a flight at 3 points, at departure, en route and at arrival. The Mite Severe weather report covers only the second point. Marginal or IMC weather conditions at the arrival and departure airports are one of the principal causes of delay. As pointed out above the 2004 Airport capacity report has specific metrics for adverse weather at EWR. Further as stated in my June 26, 2007 Third comment the dual arrival streams proposed for EWR are particularly negatively influenced by adverse weather.

The FAA states this point very well in the current OEP ver 8, 2007, Smart sheet TERM-5 Reduced Separation Standards.

"Simultaneous aircraft arrivals may be conducted at Closely Spaced Parallel Runway (CSPR) airports [as for ex.EWR] based on the use of visual (good weather) procedures. As weather conditions deteriorate, simultaneous arrivals based on visual procedures must be discontinued and standard instrument flight rules (IFR) aircraft separation must be provided. For CSPR airports this results in the operational loss of one of the two CSPRs, resulting in a 50 percent decrease in the maximum potential arrival rate. The reduced CSPR operations at major airports increase system-wide delays and make it difficult for air carriers to maintain scheduling integrity. "

The point is that the dual arrivals at EWR may be not operative during late afternoons due to thunderstorms and mornings due to overcast so that a substantial percentage of the delay savings presently projected in the FEIS will not in fact materialize for this aspect of the airspace redesign! It appears that a substantial part of the delay savings in the

redesign come from the reduced aircraft separation rules which are diminished if not completely overcome by adverse weather conditions at the terminal airspace . A supplemental report is necessary to fully disclose and evaluate the effects of adverse weather on the FEIS metrics which analyze the environmental impacts of the proposed action.

[E] Since there are many valuable improvements in the airspace redesign not connected to the dual arrival streams at EWR and since the problems outlined above pertain in large part to the dual arrival streams, I am urging the consideration of a mitigation measure of no action in part by not moving the North Gate until the environmental analysis outlined above is done so that such movement can be justified. Unlike other parts of the redesign which are to be mitigated by employing them only when necessary during peak operations, the moved North Gate is in place 24/7. No time of day mitigation is possible so the residents of Ct. and NY will be exposed to noise levels where almost no aircraft noise presently exists 24 hours a day even when the dual arrival track is not needed!

In my comments to the mitigation plans of last April I made the foregoing mitigation suggestion but the reviewer misunderstood it as a reference to the global no action alternative and therefore made no actual response to my request. It should be kept in mind that the ROD is a much more appropriate place for such fine adjustments to the proposed action rather than in court. In Court the whole airspace redesign plan may be seriously interrupted rather than just the dual arrivals. There is strong precedent for such a partial mitigation action. In the FEIS that was recently approved for Logan airport in Boston, the center taxiway portion of the plan was postponed until a supplemental report was prepared for it.

There is also a wider perspective. If the dual arrival issue were resolved quickly with the partial mitigation, such action will facilitate other actions in Congress of greater concern to the FAA such as the passage of a new funding bill and confirmation hearings on the next Administrator.

Your consideration of the above stated comments will be very much appreciated.

Sincerely,

Michael Kroposki Esq.

New Jersey Coalition Against Aircraft Noise
P.O. Box 554 Scotch Plains, New Jersey 07076

August 29, 2007

Mr. Steve Kelley, FAA
One Aviation Plaza,
4th Floor,
Jamaica, NY 11434

Re: Comments on FEIS for NY/NJ/PHL Airspace Redesign

Dear Mr. Kelley:

Please accept the following material on new developments for your consideration as partial comment by the New Jersey Coalition Against Aircraft Noise (NJCAAN) on the Federal Aviation Administration's ("FAA's") Final Environmental Impact Statement (FEIS) for the NY/NJ/PHL Metro Airspace Redesign. NJCAAN is currently reviewing the FEIS document, but cannot adequately comment on the numerous issues in the document in the limited time available prior to the Record of Decision. However, NJCAAN feels that the enclosed new material changes the landscape for the redesign and is especially significant. By submitting the enclosed additional material, NJCAAN does not intend to diminish the import of any of its earlier comments on the Draft EIS submitted in 2006, or its later 2007 comments submitted in response to the FAA proposed noise mitigations.

Four exhibits are attached that further characterize the gamut of problems due to overcrowding and delays in the NY/NJ/PHL metropolitan area and contain proposals to address the problems. Several exhibits highlight the likely ineffectiveness of the airspace redesign in addressing metro area aviation problems. The likely near term adoption a subset of the enclosed proposals may make unnecessary aspects of the airspace redesign and will certainty invalidate the operational and noise studies done for the FEIS.

1. **Exhibit A: Letter from New Jersey Senator Robert Menendez to Transportation Secretary Peters and FAA Administrator Blakey**

The enclosed letter by Senator Menendez requests examination of methods for limiting demand and encouraging use of larger aircraft to make more efficient use of airport and airspace facilities. The letter highlights the limited ability of technological solutions to increase capacity. The airspace redesign time frames are lengthy and achievement of efficiency goals undemonstrated. Note that the FAA denies that the airspace redesign increases capacity. Demand reduction methods encouraged by Senator Menendez also appeared in a number of comments from the public to the DEIS.

The noise impacts to New Jersey of the Airspace Redesign are clear and Senator Menendez states opposition to the airspace redesign because of them.

D-6

2. Exhibit B: Article from August 13, 2007 Wall Street Journal

The enclosed article from page A1 of the August 13, 2007 Wall Street Journal entitled, "Frequent Flying, More Trips Worsen Airport Delays," discusses the metro area delays and points out a 12% recent downward shift in the size and passenger carrying ability of aircraft using the metro area airports as a factor. The effect of this reduced aircraft size on delays greatly exceeds that of capacity and efficiency gains in the airspace redesign. This article also highlights the great influence on delays that congestion management and slotting can have based on experience at John F Kennedy (JFK) and LaGuardia Airports.

The article cites objections from various segments as reasons for the FAA not vigorously working to raise aircraft size to increase airspace usage efficiency. However, the FAA has chosen instead, to subject large environmental justice populations in the vicinity of Newark Liberty International Airport to greatly increased noise for small purported throughput gains that would be much less effective in reducing delays than demand control alternatives. Comments in Appendices N and Q of the FEIS shows enormous broadly based opposition to the proposed airspace changes that counterbalances the industry objections cited in the article.

3. Exhibit C: Article from July 12, 2007 New York Times

The enclosed article from the July 12, 2007 New York Times points out the 26.4% increase in flights and sharp increase in delays at JFK following the removal of slot restrictions. This flight increase is more than twice the 12.9% increase in number of passengers. Removal of JFK slot restrictions resulted in reduced airspace efficiency and effectiveness in carrying passengers. The article further points out a tendency for individual carriers, left to their own devices, to squander airspace efficiency to optimize their own operations.

4. Exhibit D: Article from July 9, 2007 USA Today

The enclosed article from the July 9, 2007 issue of USA today points out limitations on JFK ground operations as an additional factor creating delays. It mentions FAA pressure to get controllers to space aircraft more closely to address airspace congestion, which can hardly be considered to promote safety.

A brief comment on noise modeling errors. NJCAAN comments requested the examination of effects of errors in the FAA model on its noise impact projections, but none was forthcoming in the FEIS. The FAA states that NIRS is based upon the same calculation software (engine) as INM so it has the same limitations for accuracy. A quick review of the literature[1] [2]shows that INM can easily

[1] DP Rhodes and JB Ollerhead, "Aircraft Noise Model Validation," 2001 International Congress and Exhibition on Noise Control Engineering (Internoise 2001), The Hague, The Netherlands, 2001, Aug 27-30, Figure 3.
[2] DP Rhodes, S White, P Havelock, "Validating the CAA Noise Model with Noise Measurements," Environmental Research and Consultancy Department, CAA, London, Figure 4, Page 6, Paper available at http://www.caa.co.uk/docs/68/Valid_ANCON.pdf

yield errors of several decibels, and commonly underestimates the noise. NJCAAN's previous comments have pointed out that large environmental justice populations in Elizabeth, New Jersey receive 3 and 5 decibel noise increases but fall just below the FAA 65 DNL threshold. Closer examination of the populations projected as receiving large aviation noise increases in view of the errors and sensitivities in the FAA models, particularly for those areas modeled as near 65DNL, is clearly warranted and yet was not done in the FEIS.

In summary, NJCAAN urges the further consideration of other alternatives for increasing airspace usage efficiency and safety as opposed to the high impact and more complex alternatives in the airspace redesign. The FEIS states a 3.7 mile increase in flight distances for the Preferred Alternative, which will increase fuel consumption and emissions. The FEIS depends on purported delay reduction to offset these increases. Given the previous behavior of the carriers, the realization of this delay reduction is questionable. By comparison, adoption of demand control methods can yield reduced delays, less fuel burn, less emissions and less noise within the current airspace design.

At this point, near term adoption of demand control methods including promotion of increased aircraft size appears likely. This, plus the increased use of Stewart Airport, can profoundly affect airspace operation. NJCAAN believes that the FAA did not adequately review all available alternatives including demand management controls and utilization of Stewart Airport, in its airspace redesign and should include these proposals as viable alternatives. As a result, any implementation should be put "on hold" until the FAA can include the pending adoption of more effective demand control methods with the alternatives. We believe that the preferred alternative falls far short of meeting the project's purpose and need of reducing the area's aircraft delays.

Thank you.

Sincerely yours,

Jerome Feder

Jerome Feder,
Director, NJCAAN

EXHIBIT A

D-9

EXHIBIT A

ROBERT MENENDEZ
NEW JERSEY

COMMITTEES:
BANKING, HOUSING, AND URBAN AFFAIRS
BUDGET
ENERGY AND NATURAL RESOURCES
FOREIGN RELATIONS

United States Senate

WASHINGTON, DC 20510-3004

502 SENATE HART OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-4744

ONE GATEWAY CENTER
11TH FLOOR
NEWARK, NJ 07102
(973) 645-3030

208 WHITE HORSE PIKE
SUITE 18-19
BARRINGTON, NJ 08007
(856) 757-5353

August 21, 2007

The Honorable Mary E. Peters
Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

The Honorable Marion C. Blakey
Administrator
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591

Dear Secretary Peters and Administrator Blakey:

I am writing in response to the formation of a new FAA task force to address flight delays in the New Jersey/New York area. This task force (following closely behind the formation of a similar task force by the Port Authority of New York/New Jersey) is a welcome, although overdue, development. I share my constituents' frustrations about the number of delayed flights at Newark Liberty International Airport. In June, only 54% of the flights arriving at the airport were on time. This is simply unacceptable. Solutions must be found as soon as possible.

I understand that the FAA is anxious to reduce delays by investing in an upgrade of air traffic control equipment, and I am wholeheartedly supportive of this effort. Further, I know the FAA believes its proposed airspace redesign will also ease delays. I am opposed to the airspace redesign, as currently devised, because it does not adequately address our citizens' air noise concerns. Regardless, neither of these solutions will have any impact on delays for months or even years. What we need now is for the FAA and the DOT to show leadership and devise ways to mitigate this problem immediately.

As part of its review, the FAA congestion task force should examine whether temporary limits on operations should be placed on all of the region's airports. Currently, the FAA limits La Guardia Airport to 75 take-offs or landings per hour. I understand that the FAA and the DOT have been actively assessing current operations at JFK Airport and that one airline has even asked the FAA to reestablish operating limits at JFK. All three international airports, as well as Teterboro Airport, share the same overcrowded airspace that shuttles over 100 million passengers a year. These operations are clearly at the breaking point and market forces alone will not alleviate the problem. The FAA task force should immediately take steps to assess whether caps are needed at these airports. Failing that, the FAA should at the very least convene schedule reduction meetings immediately with all relevant operators in the region.

D-10

The congestion taskforce also needs to reexamine whether these increased delays can be managed by giving more priority to larger planes, particularly during periods of extreme congestion. Corporate jets are increasingly being used to travel in and out of the region and commercial airlines are increasingly using smaller regional aircraft that only seat 37 to 50 people. The FAA taskforce should study whether sensible rules on aircraft size need to be implemented in this saturated airspace. Last year the FAA proposed minimum average sizes for the planes that fly into and out of La Guardia, but this plan faced stiff opposition. This opposition was due in part to fears that smaller airports might lose access to the region, and I certainly understand those concerns. But many of these flights are coming from or going to major international airports that can accommodate much larger planes. The Port Authority of New York/New Jersey has suggested writing aircraft size requirements into gate leases. The specifics will have to be worked out, but the task force should examine whether to impose some form of regulation maximizing the number of seats per flight in our crowded air space, particularly during periods of heavy congestion and on routes that can accommodate larger aircraft.

Lastly, I would like to know if the increased number of international flights coming into the region may be causing more domestic flight delays. My staff was informed that when flying in from overseas, international flights often lack the fuel to circle for long periods of time. This means that during times when the airports are delayed, it is the shorter-route domestic flights that must circle and wait for an opening while the international flights land. Is there a noticeable difference in delays for incoming domestic or international flights into the New Jersey/New York region? Are there steps that can be taken to address this? Please provide my staff with flight delay information for international flights coming into Newark Liberty International Airport, JFK Airport, and La Guardia Airport. Please also provide flight delay information for flights from the West Coast, Hawaii, and Alaska.

The broader problem that must be solved is that we have a severely overburdened aviation network. Market forces alone will not fix these problems. Further, technological solutions will take too long to implement and will only be able to increase capacity to a certain extent. For immediate relief and for long term planning, it is incumbent on the FAA congestion taskforce to determine as soon as possible what sensible regulations can be implemented to ease delays, cancellations and other disruptions in the near-term at our region's major airports.

I thank you for your attention to this matter and eagerly await your reply.

Sincerely,

ROBERT MENENDEZ
United States Senator

SEN. MENENDEZ CALLS FOR IMMEDIATE ACTION TO REDUCE FLIGHT DELAYS

Senator welcomes new FAA congestion taskforce and provides recommendations

Tuesday, August 21, 2007

WASHINGTON – U.S. Senator Robert Menendez (D-NJ) today urged the Federal Aviation Administration (FAA)'s congestion taskforce to immediately address flight delays in the New Jersey/New York area and provided some of his recommendations in a letter. The Senator welcomes the formation of the taskforce especially when in June 2007 only 54% of the flights arriving at the Newark Liberty International Airport were on time.

"We have a severely overburdened aviation network and market forces alone will not fix the problem," said Menendez, "For immediate relief, it is incumbent on the FAA congestion taskforce to develop sensible regulations to ease delays, cancellations and other disruptions in the near-term at our region's major airports."

Menendez believes the FAA should:

- examine whether temporary limits on operations (otherwise known as "caps") should be placed on all of the region's airports,
- immediately convene schedule reduction meetings with all relevant airlines and operators in the region,
- reexamine whether these increased delays can be managed by giving more priority to larger planes, particularly during periods of extreme congestion,
- determine whether the increased number of international flights coming into the region have increased delays for domestic flights.

To read full text of the letter to the FAA: http://menendez.senate.gov/pdf/082107lettertofaa.pdf

EXHIBIT B

EXHIBIT B

FREQUENT FLYING

Small Jets, More Trips Worsen Airport Delays

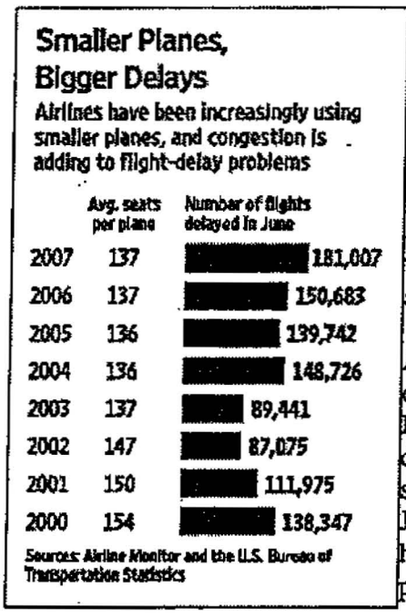
FAA Likes Bigger Craft But Passengers, Airlines Prefer Busy Schedules

By SCOTT MCCARTNEY

August 13, 2007; Page A1

At 5 p.m. last Wednesday, planes from all over were lining up in the air to land at New York's La Guardia Airport. Over the next hour, 41 flights were scheduled to touch down, but there wasn't room for them all. Thirty-three arrived late, one by three hours. With runway space this scarce, you might think that airlines would use big planes that can carry lots of people. Instead, of those 41 flights, 21 involved small commuter aircraft. Five of them were propeller planes.

The nation's air-travel system approached gridlock early this summer, with more than 30% of June flights late, by an average of 62 minutes. The mess revved up a perennial debate about whether billions of dollars should be spent to modernize the air-traffic control system. But one cause of airport crowding and flight delays is receiving scant attention. Airlines increasingly bring passengers into jammed airports on smaller airplanes. That means using more flights – and increasing the congestion at airports and in the skies around them.



At La Guardia, half of all flights now involve smaller planes: regional jets and turboprops. It's the same at Chicago's O'Hare, which is spending billions to expand runways. At New Jersey's Newark Liberty and New York's John F. Kennedy, 40% of traffic involves smaller planes, according to Eclat Consulting in Reston, Va. Aircraft numbers tell the tale: U.S. airlines grounded a net 385 large planes from 2000 through 2006 – but they added 1,029 regional jets -- says data firm Airline Monitor.

As air-travel woes have spread, some aviation officials and regulators, including the head of the Federal Aviation Administration, have begun saying delays could be eased if airlines would consolidate some of their numerous flights on larger planes. Just two problems with that. One is that airlines like having more flights with smaller jets. The other is that passengers like it, too.

Illustrating the phenomenon, three airlines flying out of midsize Raleigh-Durham, N.C., send 21 flights a day into La Guardia. All but one of the flights use small planes. That's fine with David Sink, a Durham insurance executive. "There are lots of flights, so time-wise, it worked out well for me," said Mr. Sink recently, taking an American Eagle

flight home. Given a choice between more flights or larger planes, he'd prefer more flights.

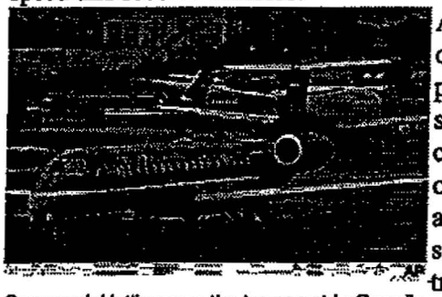
The FAA once could tackle congestion by limiting the number of takeoff and landing slots. But Congress in 2000 voted to phase out slot requirements to open up the airways to competition from low-fare carriers. The FAA sets a limit on how many takeoff and landings it can safely handle at each congested airport, but airlines are free to schedule as they want. If there are too many planes because of overscheduling or just delayed flights stacking up, the FAA slows down the flow of airliners.

At La Guardia, for example, the FAA allows 75 aircraft movements -- a takeoff or a landing is one movement -- an hour for commercial airlines in good weather. If high winds or storms drop that rate lower, the FAA asks airlines to cancel or delay flights. And sometimes the bottleneck comes not on runways, but in the air when planes from multiple airports are trying to get a spot on specific routes into or out of the area. Much of the traffic into and out of New York meshes together onto specific routes in the Washington, D.C., area; when there are too many planes, it's like multiple lanes of cars squeezing into a two-lane tunnel.

Airport Crowding

Trying to tackle airport crowding, the FAA last year proposed a complicated plan to force airlines to increase the average size of the planes they land at La Guardia. FAA Administrator Marion Blakey, questioning the use of many smaller planes and their more-numerous flights, says that "from the standpoint of passengers and from the standpoint of getting the best use out of high-priced real estate, this is not the way we should be going." But the FAA plan encountered fierce opposition and is in limbo. "A solution eludes us," Ms. Blakey says.

Smaller cities say they need the small planes in order to be connected to the nation's transportation system. Only with smaller planes can a city the size of, say, Madison, Wis., have nonstop service to La Guardia. Travelers, of course, much prefer nonstops, for speed and reduced hassles.



Commercial jetliners on the tarmac at LaGuardia Airport in New York

Airlines like the economics of small planes. For one thing, they're usually flown by lower-paid pilots and flight attendants from commuter subsidiaries or contractors. Smaller jets also let carriers bulk up their schedules without flying lots of empty seats. The combination of smaller jets and more numerous flights makes airlines' schedules more attractive to high-dollar business travelers.

Those regional jets -- planes with fewer than 100 seats -- don't just flit to small towns. Airlines cram them into their big hubs, too. Delta Air Lines flies regional jets between Atlanta and both Chicago and New York. United Air

Lines flies regional jets out of O'Hare to six cities -- Atlanta, St. Louis, Pittsburgh, Salt Lake City, Montreal and Charlotte, N.C. – all in the 5 p.m. to 7 p.m. rush. Three-quarters of the flights between La Guardia and Toronto are on planes with fewer than 100 seats. The upshot: 20 flights a day, all competing for a shot at a runway.

The small-plane conundrum is, at least in part, a byproduct of the financial troubles of the airline industry. After Sept. 11, 2001, airlines grounded older, larger jets that were gas guzzlers. The big jets weren't needed when traffic dropped dramatically after the terrorist attacks. Airlines substituted small regional jets, subcontracting the flying.
Now traffic is coming back. But many airlines have deployed most of the widebodies they have in international flying, which is more lucrative because it faces less price competition. And because of their financial woes, U.S. airlines haven't been adding many large jetliners.

Since 2002, domestic traffic by mainline airlines has increased 3.6% in terms of revenue-passenger miles, which is the number of miles that paying customers are flown, Airline Monitor says. But traffic on airlines' regional partners -- which fly the smaller aircraft – is up 196%. The average size of jets flown by U.S. airlines, including the widebodies on foreign routes, is 137 seats, down from 160 a decade ago.

Meanwhile, flight delays have worsened every year since 2003, according to the Bureau of Transportation Statistics. In the January-June period four years ago, just under 83% of flights arrived on time; in the comparable period this year, only 72.7% did.
The three big airports in the New York area are the worst for late flights. But unlike in Las Vegas, what happens there doesn't stay there: New York's delays cascade across the country.

A late arrival for one flight means a late takeoff for another, which will arrive late in Dallas or Seattle or Denver. Or, a flight from Orlando, Fla., to Pittsburgh might be delayed because the Washington-area regional traffic-control facility moves a stream of New York-bound planes to the west around storms -- clogging the route the Pittsburgh flight would use.

The problems don't arise just in bad weather. Friday, July 13, saw good weather in most of the country. But in what's called a ground stop, the FAA barred the takeoff of flights headed to Newark. Too much volume forced controllers to keep planes waiting on the ground to take off, sometimes for hours. Continental Airlines says that in 29 of June's 30 days, the FAA imposed a ground stop or ground-delay program on flights headed to Newark.

In response to Congress's mandate to phase out slot requirements, the FAA has completely eliminated them at Kennedy. And airlines have poured in more flights. Through May this year, the number of passengers at JFK is up 14% from a year earlier, but the number of flights is up 27%, says the Port Authority of New York and New Jersey, which operates that airport, La Guardia and Newark Liberty. Flights using smaller

planes leapt 85% at JFK in that period, says the Port Authority. FAA officials have reduced, but not yet fully phased out, slot requirements at La Guardia.

Size Minimums?

Searching for a new remedy, the FAA last year proposed minimum average sizes for the planes that fly into and out of La Guardia. Currently, planes using the airport average 98 seats, the agency says. It proposed that airlines' fleets would have to average 105 to 120 seats, depending on how many of their flights went to small communities. The FAA estimated this plan would reduce delays at La Guardia by 37%.

"Promoting larger aircraft is the only means to increase passenger access to La Guardia," said the FAA proposal. But opposition from airlines and smaller communities was so strong that the plan is basically dead, says the agency's Ms. Blakey.

Foes of the plan included the Port Authority, which considers aircraft size at La Guardia an airport issue. The Port Authority says it could bring about larger planes simply by writing aircraft size requirements into gate leases. It says it's studying such an idea. Former American Airlines boss Robert Crandall says Congress should let the FAA go back to controlling slots, matching scheduling to capacity. Airport overcrowding is "fixable, but it's not fixable without major policy change," the former AMR Corp. CEO said at a recent conference.

Another proposal: Change the structure of landing fees. Airports now set them by weight. A small jet pays a smaller landing fee than a large plane, even though its use of the runway is the same. Why not charge a flat fee per landing, suggest some economists -- or even charge the small jets more, to encourage airlines to shift to fewer flights on larger jets?

Yet another idea is to tie landing fees to the level of demand through the day, so they'd cost more at peak hours. This would encourage airlines to spread out flights and use bigger planes, says Dorothy Robyn, a consultant at Brattle Group and former aviation adviser in the Clinton administration. She says the current system "guarantees overuse of the air-traffic-control system because airlines aren't charged the true cost."

Airlines say tinkering with landing fees, which are only about 2% of total costs, wouldn't change their behavior, because customers want the convenient service possible when they use lots of smaller planes. Carriers say less use of small jets would make it harder for them to offer off-peak flights. "We put [regional jets] into some markets because we don't have demand at certain times," says David Seymour, vice president of operations control at US Airways Group Inc. Airlines add that less use of smaller jets also would reduce connection options for people on long transcontinental or international trips.
With its commuter affiliates using smaller planes, US Airways flies nine trips a day from La Guardia to also-congested Philadelphia International Airport. There, most passengers connect to other flights. The arrangement allows US Airways to offer New York customers more options for long trips.

Carriers contend that without changing rules, the FAA could do a better job of moving traffic into and out of the Northeast. They note that JFK has four runways, but usually only two are used at once. The reasons are complicated, and include a limited number of permissible flight paths, as well as bottlenecks that can result in the Washington area. A push this year to use three JFK runways at once has had mixed results.

An almost decade long effort to redesign the designated airways around New York to move airplanes faster and more efficiently is still bogged down in regulatory review. Neighborhoods that might face more noise have been trying to derail the plan in Congress.

Surge in Flights

The FAA says it is doing the best it can with old equipment and a surge in flights. The agency's Ms. Blakey says she thinks airlines will eventually have to switch to larger jets because of the costs that delays impose on the airlines, in inefficient use of planes and fuel. Even such a shift wouldn't fix all the delay issues, though, she says: "La Guardia is always going to be a bottleneck."

With delays climbing, airlines face a tough choice unless the FAA can boost capacity. Carriers have to accept delays, or else reduce flight frequency. Not wanting to risk losing passengers to competitors, airlines are showing scant interest so far in consolidating their numerous small-plane flights into fewer flights with bigger planes.

On Nov. 4, American Airlines will offer new nonstop flights between New York and Flint, Mich. American will send a morning flight to La Guardia and a flight back to Flint at 6:40 p.m., adding to the competition at La Guardia for precious runway space. The jets American will use: 37-seaters.

Write to Scott McCartney at middleseat@wsj.com

EXHIBIT C

NY Times–July 12, 2007

Ending a Limit on Kennedy Flights Increases Passengers and Delays

By KEN BELSON

In the past six months, Richard W. Petree Jr. has reluctantly settled into a routine. He boards an evening flight at Kennedy International Airport, sinks into his seat and waits for the pilot to tell passengers that their departure will be pushed back an hour. Then he returns to his BlackBerry until the next broadcast about further delays.

"An hour and a half to two hours in a queue on the tarmac is now absolutely typical," said Mr. Petree, an investment banker from Manhattan who flies frequently to Budapest, Dubai, Istanbul, London, Riyadh and other points overseas. "No one looks up from their reading anymore when the announcement is made. And the airline acts as if we should expect delays."

The situation is increasingly common at Kennedy, where delayed departures are now as bad as at Newark Liberty International and worse than at La Guardia.

The main cause was a federal decision at the start of the year to remove the limit at Kennedy on the number of arrivals and departures between 3 p.m. and 8 p.m. Not surprisingly, airlines rushed to offer new flights, quickly clogging the airspace, runways, taxiways and gates at Kennedy.

In many cases, smaller regional jets that seat only up to 70 passengers account for many of the new flights, yet the demands they place on air traffic controllers are similar to those of larger jets.

This helps explain why the number of flights at Kennedy surged 26.4 percent in the first four months of this year compared with the same period last year, even though the number of passengers increased only 12.9 percent over the previous year, according to monthly figures compiled by the Port Authority of New York and New Jersey, which operates the airports. In all, Kennedy handles about 1,200 flights a day.

At La Guardia, where the limits are still in place, flights decreased 1 percent, and at Newark, where the limits were not in place, flights rose 6.9 percent.

To handle the additional traffic, the Federal Aviation Administration has started allowing Kennedy to use three of its four runways at the same time for longer periods during the day. Still, the Bureau of Transportation Statistics says that from January through May, 29.1 percent of all departures there have been delayed, up from 18.1 percent in the same period last year.

"The bottom line is you can only get so many planes in," said William R. DeCota, director of aviation at the Port Authority. "The airspace and runways can probably be handled more

efficiently, but that requires new procedures and technology."

Beset by delays, in May the Port Authority set up a task force made up of airline executives, regulators and other officials to consider ways to loosen the current bottleneck at Kennedy as well as handling the additional 25 million passengers a year that are expected by 2015 at the area's three major airports.

The task force, which will meet for the first time on Wednesday, can discuss such things as management of the taxiways and gates and issues related to the size of the planes — all factors related to the bottleneck — but it is not permitted to bring up scheduling because of antitrust regulations. In addition, the Port Authority has no jurisdiction over the airlines, many of which support using regional jets.

"There are a lot of markets where the distances aren't that great, and for fuel and scheduling purposes, it makes more sense to use smaller planes," said Sametta C. Barnett, director of government affairs at Delta Air Lines. "You have to have domestic feeds to get people from across the 50 states to the international flights."

In the case of Delta, flights on smaller regional jets account for about 61 percent of Delta's departures to 86 cities from Kennedy.

The airlines, while deploring the delays, do not speak in a single voice. JetBlue, which does not use any regional jets, says the delays penalize low-cost carriers that do not discount fares. As a result, JetBlue asked the aviation agency last month to reimpose traffic limits at Kennedy if delays cannot be reduced.

"The F.A.A. has a responsibility that demand at the airport does not outstrip capacity," said Robert C. Land, senior vice president for government affairs at JetBlue.

International carriers, which bunch their departures for Europe and the Middle East at night, are also frustrated because their jumbo jets must also jockey with regional jets on the taxiways.

"The delays are wreaking havoc because we have to pay our airport staff more overtime and folks are missing connections at our hubs in Germany," said Jennifer Urbaniak, a spokeswoman for Lufthansa. "In every one of these cases, we try to make up for the delays by flying as fast we can. But that's not the answer."

The Port Authority is trying to persuade the airlines to cut the number of flights and use larger jets by reminding them of how delays affect their bottom line. Delivery companies like DHL, for instance, promise to repay customers whose packages are not delivered on time. JetBlue has a Customer Bill of Rights that entitles passengers whose scheduled departures are delayed to vouchers for discounts on future flights.

The Port Authority may also prefer that airlines use larger planes because they pay higher landing fees, which are based on an aircraft's weight. The agency also collects $4.50 from every departing passenger with a paid ticket. That money goes toward airport improvements, and even though passenger numbers are up, this is another reason to use larger planes with more seats.

D-21

"If we get more people in, we get more money in," Mr. DeCota said. "It means you pay off projects faster."

For the longer term, the aviation agency is introducing new technology that will allow jets to fly more efficiently. It is certifying flight crews to use satellite-based systems that enhance a plane's ability to make more precise turns as it prepares to land. By doing so, fewer planes to Kennedy will be on paths that overlap with flights heading to La Guardia, reducing delays there.

Some JetBlue pilots are already using the system in clear weather at Kennedy.

In addition, another kind of satellite technology will enable planes to fly closer together, particularly in bad weather, reducing potential delays, and the aviation agency is redesigning the region's airspace to redirect the flow of arrivals and departures more efficiently.

"We're talking about satellite systems with a lot more precision that will change the role of air traffic controllers," said Mike Cirillo, vice president for system operation services at the Federal Aviation Administration. Still, these are long-term solutions for current problems and are cold comfort to passengers waiting for hours to arrive and depart at Kennedy.

Victoria Printz, a business consultant from Manhattan, found that out while circling the airport for 90 minutes on a recent flight from London.

"The pilot said it was his longest approach to J.F.K. since he started flying," she said.

Jeff Bailey contributed reporting.

EXHIBIT D

USA TODAY

Problems at JFK ripple through U.S. aviation

Enlarge By Todd Plitt, USA TODAY

Traveler Lor-e Phillips, whose flight home to Los Angeles was canceled, waits with her luggage last month in the JetBlue terminal at JFK Airport. JFK is projected to handle more than 480,000 flights this year.

By Alan Levin, USA TODAY

NEW YORK — John F. Kennedy International Airport has long been known as the nation's gateway to the world, but by 6 p.m. on a recent Monday it looked more like a dysfunctional parking lot.

A conga line of arrivals sat on an unused runway more than a mile from the gates. The main taxiway was clogged by a dozen jets waiting to depart. Another dozen, mostly hulking wide-body arrivals from Europe, were clustered at the northwest corner of the airport — an area chosen to keep them clear of the growing chaos.

As some jets waited for hours to move, the frustration increased. An unidentified pilot on Comair Flight 5233, which had arrived from Burlington, Vt., about 90 minutes earlier, asked the tower for help getting to his gate because his jet's air conditioner was broken. "Our cabin temperature is getting up into the 90s right now," the pilot said.

"Call your company and tell them to find gates for all those guys in front of you," a controller replied, according to a recording of the conversation provided by LiveATC.net, a website for aviation professionals that monitors air-traffic communications. "I can't move anyone out."

JFK, one of the nation's most storied airports — and the most popular for flights into and out of this country — is choking on delays, creating a ripple effect throughout the U.S. aviation system. More than four decades after Eero Saarinen's wing-roofed TWA terminal here helped introduce modern architecture, jetways and other innovations to airports, JFK's terminals often are a crowded mess — symbolic of how a range of vexing problems in the aviation system come together in New York.

FIND MORE STORIES IN: Federal Aviation Administration | Delta Air Lines | JetBlue Airways | JFK | Administrator Bobby Sturgell

At JFK, increasing competition has fueled a dramatic rise in domestic flights in recent years, putting more stress on the most tangled piece of airspace in the world.

It's an area roughly 20-by-20 miles that sees well over 1 million flights a year, including those passing through nearby LaGuardia and Newark Liberty International airports. JFK handles nearly 400 international flights a day, but domestic flights now outnumber international ones by 2 to 1.

Air traffic analysts and federal officials say JFK and its neighboring airports are examples of what busy hubs could look like in the future. Airports in several metro areas, notably San Francisco, are seeing increased flight delays stemming from congestion.

Through May this year, about four in 10 flights at JFK, LaGuardia and Newark were at least 15 minutes late, the nation's worst delays for the period in the past decade, according to the federal Bureau of Transportation Statistics.

On Feb. 14, an ice storm crippled JFK, which led JetBlue Airways to strand aircraft on the ground for up to 10 hours in an incident that drew national attention to airlines' struggles with delays.

A USA TODAY examination of the reasons behind the delays at JFK finds several factors, some of them entrenched and difficult to change:

•The patchwork of air routes available to jets over New York, last updated 20 years ago, requires controllers to put aircrafts in holding patterns nearly every day because they simply run out of room. The Federal Aviation Administration (FAA) is trying to revamp the flight lanes, but the effort faces intense opposition from local communities concerned about increasing noise in several areas. Opposition could delay the FAA's effort for years.

•Tension between the FAA and its controllers heightens the delays. The Port Authority of New York and New Jersey, which manages the region's airports, has found that fewer aircraft have reached runways each hour in recent years because controllers have added more space between planes than required.

The increased spacing comes in the wake of a dispute between the controllers union and the FAA over how to discipline controllers who allow planes to get too close to one another.

FAA Deputy Administrator Bobby Sturgell says the FAA has imposed measures to encourage controllers to run planes closer together. But the plan has become emblematic of the ongoing debate of how to maintain safety while allowing more air traffic.

•Airline competition has helped to clog JFK. During the past two years, Delta Air Lines has sharply increased flights as the number of international flights also has risen.

Officials at JetBlue, the 7-year-old carrier that has become JFK's leading airline, carrying 11.6 million passengers into and out of the airport, have taken the unusual step of endorsing limits on flights because they say that at peak times, airlines are scheduling more flights than JFK can handle.

•Construction to prepare JFK for the mammoth Airbus A380 — set to begin airline service this year in Asia and Europe — has blocked key taxiways. That's added to flight delays because controllers can't efficiently move jets from one side of the airport to the other. During the construction, one taxiway was moved and others were reinforced.

The problems illustrate how fragile the aviation system has become at its busiest airports, says John Hansman, a professor at the Massachusetts Institute of Technology who studies air traffic.

"A few things start to go wrong, and then it cascades," he says.

In recent months, the problem has prompted a flurry of activity by airlines, the Port Authority and the FAA.

Delta has successfully lobbied the FAA to make more use of JFK's four runways so additional jets can land each hour. The airline industry's Washington trade group, the Air Transport Association, last month demanded that the FAA add flight routes in the New York area. The Port Authority formed a task force to address delays. In response, the FAA has sent a team to New York to study JFK's problems.

"We are putting a lot of focus on it," Sturgell says. "We know it's important to our national system as well as the citizens flying into and out of the New York area."

Sturgell says JFK's problems won't be solved without new technologies the agency plans to introduce in coming decades, such as satellite-based navigation that will allow aircraft to safely fly closer together.

"It speaks to the limitations of the current air traffic system," Sturgell says.

A boost from JetBlue

Problems at JFK ripple through U.S. aviation - USATODAY.com##

Built on marshland in Jamaica Bay about 12 miles from Manhattan, JFK originally was known as Idlewild, the name of the golf course that once was on the site.

By the late 1990s, its distinctive terminals had become worn, top carriers such as Pan Am had gone out of business and the bulk of traffic into New York City had moved elsewhere. LaGuardia and Newark both had far more flights.

But in 2000 an upstart airline, JetBlue, saw potential in the underutilized airport and began offering low-cost flights there.

Within three years, it was the airport's top airline, and it has continued to grow. It now has about 344 flights a day.

Other carriers followed JetBlue's growth, particularly Delta. During the past two years, it and its partners nearly doubled the number of daily flights at JFK to 382.

Now JFK handles more flights a day than its New York rivals and has grown at a faster rate since 2000 than any other large U.S. airport, according to FAA data.

JFK is on a pace to handle 460,000 flights this year, 33% more than 2000, the Port Authority says.

'Stacked full of airplanes'

The impact of that growth shows on days such as Monday, June 11.

Late that afternoon, a line of intermittent storms moved up the East Coast, slowing air travel. FAA air traffic managers at the agency's Command Center near Washington, D.C., ordered controllers at JFK to halt most domestic departures but allowed arrivals to continue.

As more and more jets arrived, controllers ran out of places to put them. Barking orders in staccato bursts, they tried to keep taxiways clear by moving arrivals to an unused runway. But the effort couldn't keep the taxiway in front of Delta's terminal clear.

The pilots of Delta Flight 133 from Athens, one of the jets that had been sent to the far side of JFK, radioed shortly after 5:30 p.m. to say the airline was holding taxiway "lima-alpha" open for them so they could reach the terminal. The controller replied that the taxiway was full of planes.

Controller Barratt Byrnes, president of the local controllers union and one of those on duty in the tower that day, says the scene has become typical.

"It's not every night, but it's most nights," Byrnes says. "When you overburden an airport, as delays begin to happen, you are never able to recover from them. Once the delays start, it's over."

Inefficient routes

Former controller Steve Kelley recalls being struck 20 years ago by the inefficient routes that planes in the New York area followed. Little has changed since then.

Nowhere else in the world do so many aircraft converge into such tight confines as New York.

If the weather is bad at JFK, for example, one of the airport's runways is unusable because the route required for a low-visibility approach interferes with flights at other airports. JFK's four long runways could handle more flights, but the area's controllers can't accept more aircraft.

Kelley, who now manages the FAA's effort to redesign flight corridors on the East Coast, says using modern technology such as highly accurate aircraft routes guided by satellite would help reduce delays at JFK and other area airports.

For example, the delays on June 11 were triggered by a few small thunderstorms. One of the features of the FAA's plan would allow planes to use additional routes outside the region, so they would have more paths to fly around storms, Kelley says.

However, the FAA's experience in New York shows it won't be easy to make such changes.

D-26

http://www.usatoday.com/travel/flights/2007-07-09-jfk-cover_N.htm

The prospect of rerouting aircraft across the region has created bitter opposition. Public meetings on the plan have been contentious. Virtually no elected official in the region has endorsed the idea.

The FAA has concluded that the number of people affected by noise from aircraft would drop because of plans to keep more planes over the ocean, rivers and highways, but some communities that rarely hear aircraft noise would get more of it.

Area congressmen have asked the Government Accountability Office to study the FAA's plan.

"I'm extremely concerned that this airspace redesign is a colossal mistake," says Rep. Robert Andrews, D-N.J.

More space between planes

Looming in the background of JFK's delays are disputes between controllers and FAA managers.

Two years ago, the FAA found that controllers at the New York Terminal Radar Approach Control center, which handles aircraft below 18,000 feet in a roughly 50-mile radius around the city, routinely were bringing planes slightly closer together than the rules allowed (typically 3 nautical miles).

The facility's union president, Dean Iacopelli, says that since then, several controllers have been disciplined for minor traffic-directing infractions that previously would not have drawn punishment.

The FAA's move has led controllers to put more space between planes, prompting a decline in capacity at New York's airports, says Tom Bock, the manager of airspace and operational enhancements for the Port Authority.

Iacopelli says controllers are simply trying to follow the directions they are receiving from management. The FAA is investigating ways to allow controllers to squeeze more aircraft together while staying within their guidelines, Sturgell says. The agency recently eased its rules regarding minor infractions.

Byrnes and Iacopelli say declines in staffing at New York facilities also have added to delays. Controllers have had increasingly tense relations with the FAA since it imposed pay cuts last year. The FAA says staffing levels are adequate and that it's hiring more controllers.

Endless wait times

As darkness fell on JFK on June 11, delays continued to stack up.

Some of the storms that blocked domestic routes drifted over the Atlantic Ocean, forcing a halt to departures to Europe.

By evening, every flight leaving JFK was late and some jets sat for hours waiting to leave. One pilot waiting for departure clearance asked the tower how long he should expect to wait.

"If I had that answer, I'm in the wrong job," a controller responded, according to a recording of the conversation provided by LiveATC.net. "... I couldn't even begin to tell you."

Posted 43d ago

Updated 43d ago

Pete CTR
Nelson/AEA/CNTR/FAA
09/05/2007 10:01 AM

To BKulvelis@HNTB.com, hdanner@mitre.org, jhoffman@mitre.org, Lee Kyker/ASO/FAA, michael.johnson@ngc.com, michael.merrill@ngc.com,
cc
bcc
Subject Fw: Comments on NJ/NY/PHL Airspace Redesign

These comments were hand delivered to the FAA Administrators office on FRI 8 31 07...

Peter A. Nelson
Senior Management Analyst Air Traffic Operations
Airspace Redesign
Eastern Terminal Service
1 Aviation Plaza
Jamaica, NY 11434
718 977 6528
Fax: 718 995 5691

—— Forwarded by Pete CTR Nelson/AEA/CNTR/FAA on 09/05/2007 10:00 AM ——

<steve.kelton@hklaw.com>
09/05/2007 09:48 AM

To Steve Kelley/AEA/FAA@FAA
cc Pete CTR Nelson/AEA/CNTR/FAA@FAA
Subject Comments on NJ/NY/PHL Airspace Redesign

Dear Mr. Kelley:

On behalf of the County Attorney of Rockland County, New York, we provide the following comments on the Final Environmental Impact Statement on the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign ("EIS")(July 2007). (Please note: the attached comments and reports were also delivered to you care of the FAA's DC headquarters on Friday, August 31, 2007.)

<<FAA ltr from LRL to Blakey.pdf>>

<<Rockland County Comments.pdf>>
<<Fidell Report.pdf>>
<<Lane Report.pdf>>
<<Beckmann Report.pdf>>

Sincerely,

D-28

ROCKLAND COUNTY LEGISLATURE

C'FEIS # 4

FAX TRANSMITTAL

TO: Steven Kelly Project Manager
FAA
One Aviation Plaza
Jamaica, NY 11434
ATTENTION: PETE NELSON

FROM: Chris Seidel, Secretary

DATE: August 31, 2007

RE: **Airspace Redesign Proposal for New York Area**

Attached is a copy of the "Comment" by Chairwoman Harriet Cornell. A hard copy of this document was mailed to Hon. Marion C. Blakey today.

D-29

The Legislature of Rockland County

HARRIET D. CORNELL
Chairwoman

Comment by
Hon. Harriet Cornell
Chairwoman, Rockland County Legislature
Airspace Redesign Proposal for New York area

When the F.A.A. announced its "preferred airspace redesign alternative for the New York area," it highlighted issues such as reducing delays and making air travel more reliable. But there was no mention of the millions of people who would not be purchasing airline tickets—people who live and work directly in these flight paths—who would be the most affected and disadvantaged by this "preferred airspace redesign alternative." The FAA Preferred Alternative clearly affects our quality of life.

Rockland has long been considered one of the most attractive places to live in the New York Metropolitan region. We have wonderful schools, state-of-the-art health care and extensive outdoor recreational opportunities. The FAA owes it to the residents of Rockland County to listen to our concerns and revamp accordingly—even if it means going back to the drawing board.

Thanks to an editorial in The Journal News on July 17, 2007, I learned that the County of Westchester had hired an independent consultant in 2006 to review the FAA plans. In September of 2006 the FAA made a commitment, based upon initial comments on the DEIS submitted by Westchester, to provide the noise data needed in order for the consultant to investigate issues of concern. It took almost eight months for the FAA to send the data, which was received two days before the close of the comment period in May 2007. I obtained a copy of the in-depth Report that Westchester County sent to the FAA after they analyzed the late-arriving data on Noise Mitigation. And while it may not be relevant to comment about some of the strictly Westchester-based analysis, I can extrapolate what appears to be a major flaw in the FAA proposal.

What the FAA did not do is compare the Mitigated Preferred Alternative to the NO Action Alternative.* What they **did** do was to compare the Mitigated and Unmitigated versions of FAA's Preferred Alternative. While that comparison is of value in understanding the benefits of proposed mitigation, comparison of the Mitigated Preferred Alternative to the No Action Alternative would answer the question of greatest concern to our residents: ***"How will aircraft-related noise exposure change for me if the FAA pursues its proposed action?"*** The fact that this comparison was not made is a fatal flaw!

D-30

In addition, FAA Order 1050.1E "Environmental Impacts: Policies and Procedures" states that noise exposure should be "compared to the No Action alternative for the same time frame." If that were done, it would show the change that the community would likely experience at the time of implementation.

The practice of comparing the mitigated and unmitigated versions of the Preferred Alternative has confused many members of the public who think the unmitigated version means the same as No Action. The FAA is attempting to make changes that will profoundly affect the residents of our region "under the radar screen."

I call for the FAA to change its stance and prepare a Supplemental EIS or Supplemental Environmental Assessment and allow for public comment on that document to clarify and ensure that all relevant issues are aired. This should include an analysis of suggestions made at the July 30 meeting in Rockland and others made in writing. A valuable suggestion submitted from Village of Sloatsburg Trustee Brian Nugent and deserving of attention relates to the Modifications to Existing Airspace (MTE) Alternative which would fan out departure routes while leaving the existing arrival paths in their current locations. This would eliminate the controversial Newark Runway 22 flight path over Rockland.

In addition the public comment period should be extended to give this county and others an opportunity to analyze the **noise, air and water quality impacts**. We cannot take the word of this federal agency that its redesign would have little impact on our communities, because its stated goal is something else entirely. *The FAA is focusing on the ever-increasing numbers of flights and the long delays at airports, not the quality of life of those on the ground.*

Considering the increase in air traffic from Stewart Airport which has already been reported as a result of additional air carriers, and which will continue to grow under the management of the Port Authority—and the fact that air traffic from Stewart was not considered or analyzed by the FAA—I believe that the Redesign Proposal is deficient and should not be implemented.

Very little has been said about **air quality**. With up to 600 planes flying over Rockland every day, I want to know if the FAA has hard information on how this will affect the quality of our air? In 2004, the U.S. Environmental Protection Agency identified 10 counties in New York State that are not in compliance with the EPA's health-based standards for fine particle pollution. Rockland is one of those counties. The EPA, through the auspices of the Clean Air Interstate Rule, has promised to bring Rockland and other counties up to standards by 2010. If these flights are to begin flying over the county in 2011, what will happen to our compliance with these vital health standards?

The proposed flight pattern could send 600 flights a day directly over Rockland's **U.S. EPA Federally Designated Sole Source Aquifer**. In addition to the pollution that will reach the ground and affect the aquifer, there is also the danger of an aircraft disaster that

D-31

would be a major catastrophe affecting over two million people who depend on this aquifer for their water.

As others have so eloquently stated, there will be a deleterious effect of the airplane noise over our parks. Increased airplane noise will certainly have a negative effect on the enjoyment of our open spaces as well as a negative effect on the fauna in our parks.

As part of the public record I wish to commend Legislator Pat Withers from the Town of Ramapo for his leadership role in bringing these proposed changes to light, together with Legislator Pat Moroney of Orangetown. Elected legislative leaders in Rockland, its towns and villages should have received direct notice from the FAA years ago and hearings should have been scheduled to obtain local input. I also wish to thank Congressman Eliot Engel for arranging a meeting in Washington with FAA officials followed by a public meeting in Rockland. Thanks also to Ramapo Town Supervisor Christopher St. Lawrence for hosting a televised public meeting; to other elected officials who traveled to Washington and all Rockland citizens who have joined in solidarity to prevent implementation of this redesigned airspace which poses such threats to the quality of life.

Harriet Cornell

Harriet Cornell
Chairwoman, Rockland County Legislature
County Office Building
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Tel: 845-638-5100
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Dated: August 30, 2007

**** If the FAA did this comparison, it was not included in material distributed to the public or in any form comprehensible to lay people or in any form recognized by professionals (see Report by Harris Miller Miller & Hanson, Inc. for the County of Westchester, dated June 22, 2007) or presented orally at either of the two meetings hastily held in Rockland.***

D-32

ELIOT L. ENGEL
17TH DISTRICT, NEW YORK

COMMITTEE ON
FOREIGN AFFAIRS
CHAIRMAN
WESTERN HEMISPHERE
SUBCOMMITTEE
OTHER SUBCOMMITTEES:
EUROPE
MIDDLE EAST AND SOUTH ASIA

COMMITTEE ON
ENERGY AND COMMERCE
SUBCOMMITTEES:
HEALTH
TELECOMMUNICATIONS AND THE INTERNET

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August 31, 2007

Federal Aviation Administration
1 Aviation Plaza
Jamaica, NY 11434-4809

To Whom It May Concern:

I write to express my continuing opposition to the FAA continuing to adopt the ill-conceived airspace redesign plan. The FAA is continuing to force this plan on hundreds of thousands of people whose quality of life will be dramatically affected by it, and who simply oppose this plan. Rather than listen to and address their concerns, the FAA sought to bypass the people of Rockland and Westchester Counties, who are directly affected by it, and move forward with the plan.

In addition, it is completely unacceptable that a federal agency would fail to contact federally elected officials, representing the affected area, with information about how a change in flight routes which adversely affects their constituents' quality of life.

Locally affected areas deserve to have their voice heard, through an on-the-record meeting. My constituents in Rockland deserved to have their voices heard, and this right was denied to them by the FAA. This entire process was poorly handled from the beginning.

There are a number of scenarios that the FAA could have used instead of their current proposal, all of which would have been better for the affected people of Rockland and Westchester Counties. And if the residents of these counties had been able to comment on the record with the FAA in attendance, the plan might have been dramatically altered.

Furthermore, we still have not received answers to critical questions that we have been asking for months. For example, how loud will it be when a plane flies overhead at 6,000 feet? This will be happening up to 600 times per day, and we deserve an answer to this question. We have been given 24 hour averages, but averages mean nothing to us when we don't know how loud a single plane will be. We also need to reconcile the fact that

D-33

certain proposed overflight areas have higher elevations which will certainly bring substantially more noise than areas with a lower elevation.

And what about pollution? We live in a metropolitan area of over 15 million people, with pollution coming from various sources, which includes the Thruway, carrying over 150,000 cars a day. Having 600 airplanes flying over our neighborhoods every day adds concerns of asthma, cancer, and other respiratory illnesses.

These are just a few of the many concerns that New Yorkers have about this proposal. Other concerns such as the potential growth of Stewart International Airport, flying planes over the Indian Point nuclear power plant, and the negative impact on property values in the affected areas, remain unresolved.

I absolutely cannot support this proposal until our concerns are addressed. We have far too many questions that are being left unanswered, and we require satisfactory answers before giving serious consideration to the redesign plan.

Sincerely,

Eliot L. Engel
Member of Congress

Holland & Knight

Steve Kelton

Holland & Knight LLP


FAA ltr from LRL to Blakey.pdf


Rockland County Comments.pdf


Fidell Report.pdf


Lane Report.pdf


Beckmann Report.pdf

D-35

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August 31, 2007

VIA UPS

Marion C. Blakey, Administrator
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800 Independence Avenue SW
Washington, DC 20591

Steve Kelley
Federal Aviation Administration
FAA New York TRACON
1515 Stewart Ave.
Westbury, NY 11590

Dear Administrator Blakey and Mr. Kelley:

On behalf of the County Attorney of Rockland County, New York, we provide the following comments on the Final Environmental Impact Statement on the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign ("EIS")(July 2007).

Sincerely,

Holland & Knight LLP

Lawrence R. Liebesman

Teno A. West
Lawrence R. Liebesman
Steven Kelton

D-36

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August 31, 2007

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Steve Kelley
Federal Aviation Administration
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Reston, VA 20191

Dear Administrator Blakey and Mr. Kelley:

On behalf of the County Attorney of Rockland County, New York, we provide the following comments on the Final Environmental Impact Statement on the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign ("EIS")(July 2007).

Teno A. West
Lawrence R. Liebesman
Steven Kelton

D-37

TABLE OF CONTENTS

Page

REPORTS

1. Sanford Fidell, PhD., Critique of Aircraft Noise Analysis of Final Environmental Impact Statement for New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign

2. Theodore Lane, PhD., Impact of Aircraft Noise Over Rockland County, New York

3. Beckmann Appraisals, Inc., Preliminary Real Property Impact Analysis on Tax Assessments

INTRODUCTION

Rockland County is New York's southernmost county west of the Hudson River. The area is a suburban county home to nearly 300,000 people; its citizens live among five towns containing 19 incorporated villages. The area has long been considered one of the most attractive places to live in the New York metropolitan region, with wonderful schools, state-of-the-art health care, and extensive outdoor recreational facilities.

County and regional residents alike have come together on this important issue: to express outrage over the noise and other impacts from the preferred alternative in the Federal Aviation Administration's ("FAA") Final Environmental Impact Statement on the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign ("EIS")(July 2007) on the Agency's airspace redesign. Indeed, nearly 1,200 people of all races, religions, ages, and incomes came to a public meeting recently to send a loud message of concern that, if distilled to one sentence, would read: FAA, delay this important decision until significant unresolved issues can be adequately aired and evaluated. The citizens' concern is strengthened by the fact that the U.S. Environmental Protection Agency ("EPA"), in its comments on the draft EIS, gave the document a grade of "EC-2"—the lowest grade that EPA can give to an EIS/draft EIS without substantial internal elevation through the Associate Administrator and potentially the Deputy Administrator. The Department of Interior has also raised strong concerns about the FEIS noise impacts to park land and historic resources enjoyed by County residents.

The County originally believed that it would be spared the brunt of the impact from this airspace redesign. It is now apparent, however, that the Preferred Alternative will significantly impact County residents by routing hundreds of flights a day over the County's airspace. The County is now facing the very same kind of impacts as other municipalities in New Jersey, New York, Pennsylvania and other nearby states whose residents are going to be negatively affected by increased traffic, noise, and other impacts of the airspace redesign.

It is absolutely critical for the FAA to address significant issues that have not been satisfactorily addressed to date through the National Environmental Policy Act ("NEPA") process. There is a lot at stake for the entire region, including Rockland County. This pending decision is about quality of life issues that face tens of millions of Americans in the region with wide-ranging effects. Rockland County believes that the path to the best decision is based on the fundamentals of NEPA: full disclosure by the FAA, public participation, and sound science. Faced with an airspace redesign that could last the next fifty years, the worst thing would be to rush to judgment without a full review of all potential impacts because of some artificial deadline. Unfortunately, it appears that the FAA is doing exactly that.

The County Attorney is submitting these comments before the Record of Decision ("ROD") is issued as allowed under NEPA.[1] The comment period must be reopened and the

[1] See 40 C.F.R. § 1503.1(b) ("In any case other agencies or persons may make comments before the final decision unless a different time is provided under Sec. 1506.10"). Since the EIS was published in the Federal Register on August 3, 2007, a final decision cannot be made before September 4, 2007. See 40 C.F.R. § 1506.10(b)(2)("No

FAA should prepare a supplemental NEPA analysis and seek public comment on that analysis. The ROD should not be released until that process is completed and the serious deficiencies in the current EIS, outlined in our comments below, are fully addressed. Indeed, under 40 C.F.R. § 1506.10(d), the FAA as the lead agency on this EIS has full authority to reopen and extend comment periods under NEPA to seek the public's views on significant issues that have not been adequately addressed. The "compelling reasons of national policy" demand such action. Id.

Executive Summary

- **The EIS's Purpose and Need Statement is too narrow.** FAA's exclusive focus on increasing efficiency and reliability and rejection of noise reduction conflicts with repeated Congressional action making aircraft noise reduction a fundamental part of FAA's mission. Congress's noise reduction mandate was made unequivocally clear when it passed the Airport Noise and Capacity Act of 1990. Congress has reaffirmed that directive on numerous occasions through the federal appropriations process by insisting that the FAA address aircraft noise specifically with respect to the New York/New Jersey/Philadelphia ("NY/NJ/PHL") airspace redesign process. In fact, the FAA's continuing disregard for aircraft noise reduction as fundamental to the redesign has drawn frequent criticism from members of Congress.

- **The FAA's treatment of alternatives and presentation of mitigation measures violates NEPA.** The FAA's narrow focus has resulted in an EIS that improperly "skews" the Agency's approach toward consideration of alternatives. This violates NEPA's mandate that agencies "rigorously explore and objectively evaluate all reasonable alternatives." In particular, the FAA's rejection of the Ocean Routing alternative as not worthy of serious consideration ignores the significant benefits of that alternative in reducing impacts on communities and sensitive populations. Further the FAA's failure to take a system-wide, "holistic" approach has resulted in the failure to seriously consider other alternatives such as efficient use of existing facilities by larger jets, peak hour demand control and use of alternative transportation modes for short and intermediate trips. Further, the FAA's failure to objectively compare the mitigated preferred alternative to the No Action alternative distorts the true impacts to the citizens of Rockland County who will experience noise impact from hundreds of flights every day with direct and measurable impacts on resident's quiet enjoyment which will lower property values.

- **The potential property value loss from the airspace redesign as set forth in the Beckmann and Lane Reports requires additional FAA review and reconsideration of its preferred alternative.** The FAA's Preferred Alternative's impact on real property values is, by itself, reason for reconsidering all options. We include two reports by experts in the field of assessing aircraft noise impacts on real property values and related effects on the tax base. Dr. Theodore Lane of Lane/Thomas and Associates concludes

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decision on the proposed action shall be made or recorded . . . until . . . (2) Thirty (30) days after publication of the notice described above in paragraph (a) of this section for a final environmental impact statement").

that the socio-economic impacts of the airspace redesign actually underestimates the actual noise impacts. While the absolute noise levels may be moderate, he believes that the relative aircraft noise levels will increase significantly which could have major indirect effects on the County. The report by Beckmann Appraisals of Tappan NY, draws upon that Firm's extensive knowledge and experience with real estate in Rockland County in assessing the impacts of routing hundreds of flights over the County. They conclude that, under the unmitigated scenario, there will be a devaluation of properties within the noise zone of 3% to 7%. Under the mitigated scenario, where flights are at a higher altitude over the County, there will still be a devaluation in the range of 1% to 3%. Under both scenarios, this will cause a shift in taxes to those municipalities that will not experience such a devaluation.

- **The noise impact methodology used by the FAA is unreliable and has been discredited by experts in peer-reviewed studies.** The FAA relies on the fifteen-year-old recommendation of the Federal Interagency Committee on Noise ("FICON") of a particular prediction equation to transform estimated Day-Night Average Sound Levels ("DNLs") into percentages of overflown populations highly annoyed by aircraft noise. FICON's prediction equation was never peer reviewed prior to its publication, and has been severely criticized by experts as systematically under-predicting the annoyance of aircraft noise, particularly at noise exposure levels that FAA considers thresholds of significant impacts. Experts such as Dr. Sanford Fidell, who has been retained by the County, have demonstrated that source-specific dosage-effect equations are technically superior to FICON's obsolete "one size fits all" predictive equation. The FAA's reliance on FICON's recommendation violates NEPA and the Data Quality Act.

- **The EIS does not adequately address environmental justice concerns.** The FAA has not adequately assessed the numerous environmental justice communities in the region, including portions of Rockland County with pockets of poor, minority and unassimilated minorities that will be in the flight path of the FAA's preferred alternative. The EIS fails to conduct an adequate analysis of specific effects of noise impacts on these populations including cumulative and indirect impacts from other sources of noise.

- **The EIS does not adequately assess secondary and cumulative effects.** The redesigned airspace will increase capacity, which will lead to growth. The EIS did not adequately examine how all the foreseeable projects would impact Rockland County. The growth of Stewart International Airport is of special concern.

- **Noise impacts on sensitive public parkland, recreational areas, wildlife and waterfowl refuges and significant historic sites have not been adequately addressed.** Section 4(f) of the Department of Transportation Act requires special analysis of noise impacts on these resources and requires a determination of prudent and feasible alternatives and minimization of harm. Here, even the National Park Service has criticized the FAA for using the DNL methodology and not using a more site-specific approach. The FAA even admits that it continues to assess noise impacts on ten such

sites in the area and will include that analysis in the ROD without making it available for public comment. That is a blatant violation of NEPA and section 4(f).

- **The FAA's use of out-of-date and incomplete information requires supplemental NEPA documentation with public comment.** The FAA's use of out of date and incomplete information requires supplemental NEPA documentation with Public Comment. The FAA uses models or data that are either old, incomplete or just plain wrong. The FAA's flight projections were all made before the tragic events of September 11, 2001—nearly six years ago—and did not take into account the huge prices increase in aviation fuel and the now imminent expansion of the Stewart International Airport. Further, the DNL methodology is out of date and was never peer reviewed as noted by the County's noise expert, Dr. Sanford Fidel. The use of this old and non-peer-reviewed data violates OMB's guidelines under the Data Quality Act. This clearly requires the FAA to prepare a supplemental NEPA document for public review and comment.

ANALYSIS

(A) The EIS's Purpose and Need Statement is Too Narrow and Ignores Congressional Action Making Aircraft Noise Reduction a Fundamental Part of FAA's Mission.

The FAA asserts that noise reduction was not part of the purpose and need of the redesign project because the FAA's "mission" was "to increase efficiency and reliability of the air traffic system through the adjustment of traffic flows in the New York/New Jersey and Philadelphia ("NY/NJ/PHL") areas while accommodating new technologies and reducing delays." Response #7 to Comment 4100 by New Jersey Citizens Against Aircraft Noise ("NJCAAN"), EIS at Appendix N. Thus, the FAA relegates noise reduction as merely a "consideration" in the NEPA process, stating that "*Noise reduction was never part of the purpose and need of the NY/NJ/PHL Airspace Redesign Project.*" Id. at #25. This unduly narrow interpretation flies in the face of repeated Congressional action that has made noise reduction a primary mission of the agency, especially regarding the redesign project.

To begin with, the FAA's definition of purpose and need fundamentally conflicts with the requirements of NEPA, the Council on Environmental Quality ("CEQ") regulations, and FAA's own NEPA regulations. It has been held that the purpose and need in an EIS will provide direction on identifying and evaluating the range of alternatives and that an agency's purpose and need may not be inappropriately narrowed so as to eliminate otherwise reasonable alternatives. City of Alexandria v. Slater, 198 F.3d. 862 (D.C. Cir. 1999). Indeed, Congress can define the scope of an agency's statement of purpose and need or direct federal agencies to do so pursuant to statutory guidance as it recently did in enacting the "Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users."[2] Thus, an agency must look at its underlying

[2] See, Mandelker, NEPA Law and Litigation, sec. 9: 24, 2007 ed.

statutory mandates in defining Purpose and Need. As the Second Circuit held in City of New York v. Dep't of Transportation, 715 F.2d. 732, 743 (2d Cir. 1983)("Statutory objectives provide a sensible compromise between unduly narrow objectives an agency might choose to identify to limit consideration of alternatives and hopelessly broad societal objectives that would unduly expand the range of relevant alternatives"). Here, the FAA has failed to heed its mandate to integrate noise reduction with its other laws, regulations, and polices for the redesign plan. See FAA Order 1050.1E.

Without a doubt, Congress has repeatedly directed that aircraft noise reduction be a fundamental part of FAA's mission.[3] Congress has also specifically relied on the annual federal appropriations process to direct that aircraft noise be considered during the NY/NJ/PHL airspace redesign planning process. Indeed, numerous Members of Congress have expressed personal frustration due to FAA's lack of responsiveness on aircraft noise issues. In light of the significant legislative history on this issue, it is unthinkable that the FAA would marginalize aircraft noise in the final EIS and only consider aircraft noise reduction "where feasible."[4]

Congress's noise reduction mandate was made unequivocally clear when it passed the Airport Noise and Capacity Act of 1990 ("ANCA"). Congress made aircraft noise reduction a basic part of FAA's mission because it recognized the need for a national aviation noise policy.[5] This mission is reflected in the findings of the ANCA stating that:

(1) aviation noise management is crucial to the continued increase in airport capacity
(2) community noise concerns have led to uncoordinated and inconsistent restrictions on aviation that could impede the national air transportation system;
(3) a noise policy must be implemented at the national level;
(4) local interest in aviation noise management shall be considered in determining the national interest.

Congress has reaffirmed this directive on numerous occasions through the federal appropriations process by insisting that the FAA address aircraft noise specifically with respect to the NY/NJ/PHL airspace redesign. This direction is seen in the Transportation Appropriations bills for Fiscal Years 97,[6] 04,[7] and 06.[8]

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[3] See also, Aircraft Noise Abatement Act of 1968, (P.L. 90-411); Noise Control Act of 1972 (P.L. 92-574); Aviation Safety and Noise Abatement Act of 1979, (P.L. 96-143); Airport and Airway Improvement Act of 1982 (P.L. 97-248); Airport and Airway Safety and Capacity Expansion Act of 1987 (P.L 100-223).

[4] Response to Comment 4100: NJCAAN, by Rutgers Environmental Law Clinic, at #28, EIS at Appendix N.

[5] Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), Sec. 9301 et. seq.

[6] FY97 House Transportation Appropriations Report:

> Expanded East Coast Plan--The Committee directs the FAA to work with affected representatives from the New York-New Jersey region, including appropriate citizens groups, to develop the most feasible and cost-effective noise mitigation solution for the expanded East Coast plan. Although the FAA promulgated a final environmental impact statement in 1995 for the expanded East Coast plan, this has not satisfactorily addressed the concerns of citizens in the State of New Jersey, and further analysis of noise mitigation remedies seems appropriate. [H.Rept. 104-631, Department of Transportation and Related Agencies Appropriations bill, 1997, at 43 (June 19, 1996).]

[7] FY04 Senate Transportation Appropriations Report:

Most recently, the House FY 07 Transportation Appropriation Report even directed the FAA to inform the Congress on noise reduction mitigation measures that "minimize, rectify, reduce, eliminate or compensate for noise impacts in the FEIS":

> *New York/New Jersey airspace redesign.*--The Committee notes that the executive summary of the FAA's Draft Environmental Impact Statement (DEIS) for the redesign of the New York/New Jersey/Philadelphia regional airspace states, `Mitigation measures to avoid, minimize, rectify, reduce, eliminate, or compensate for these (noise) impacts will be considered in the Final EIS.' The Committee directs the FAA to provide a letter report to the House and Senate Committees on Appropriations by January 7, 2007 on

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The Committee also directs FAA to submit, not later than April 1, 2004 a report to the House and Senate Committees on Appropriations on the New York/New Jersey airspace redesign effort. This report should include details on all planned components and elements of the redesign project, including details on aircraft noise reduction and any ocean routing modeling that has been conducted. [S. Rept. 108-146, TRANSPORTATION, TREASURY, AND GENERAL GOVERNMENT APPROPRIATIONS BILL, 2004, at 22 (Sept. 8, 2003).]

FY04 House Transportation Appropriations Report

National airspace redesign- The Committee directs that, of the funds provided for national airspace redesign, not less than $6,500,000 shall be allocated to airspace redesign activities in the New York/New Jersey metropolitan area. The Committee also directs FAA to submit, not later than April 1, 2004 a report to the House and Senate Committees on Appropriations on the New York/New Jersey airspace redesign effort. This report should include details on all planned components and elements of the redesign project, including details on aircraft noise reduction and any ocean routing modeling that has been conducted. H. Rept. 108-243 – DEPARTMENTS OF TRANSPORTATION AND TREASURY AND INDEPENDENT AGENCIES APPROPRIATIONS BILL, 2004, at 21 (July 30, 2003).

[8] FY06 House Transportation Appropriation Report:

New York/New Jersey airspace redesign.--No funds made available for national airspace redesign may be used to prepare the environmental impact statement for the redesign of the New York/New Jersey/Philadelphia regional airspace, or to conduct any work as part of the review of the redesign project conducted under the National Environmental Policy Act and related laws, as long as the FAA fails to consider noise mitigation. [House Report 109-153 - DEPARTMENTS OF TRANSPORTATION, TREASURY AND HOUSING AND URBAN DEVELOPMENT, THE JUDICIARY, DISTRICT OF COLUMBIA AND INDEPENDENT AGENCIES Appropriations Bill, 2006, at 16 (June 24, 2005)].

FY06 Transportation Appropriations Conference Report:

National airspace redesign.--The conference agreement includes $2,000,000 and language proposed by the Senate regarding the use of funds for the national airspace redesign project in the New York/New Jersey metropolitan area. The conferees agree to House language that no funds made available under this appropriation may be used to prepare the Environmental Impact Statement for the redesign of the New York/New Jersey/Philadelphia regional airspace, or to conduct any work as part of the review of the redesign project conducted under the National Environmental Policy Act and related laws, as long as the FAA fails to consider noise mitigation. Further, none of the funds made available for this purpose shall be reprogrammed by the FAA to other activities, including airspace redesign not directly related to New York, New Jersey, and Philadelphia airspace redesign. [H. Rept. 109-307, Conference Report for MAKING APPROPRIATIONS FOR THE DEPARTMENTS OF TRANSPORTATION, TREASURY AND HOUSING AND URBAN DEVELOPMENT, THE JUDICIARY, DISTRICT OF COLUMBIA AND INDEPENDENT AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2006, at 136 (Nov. 17, 2005)].

> the specific mitigation measures that will be considered to address noise impacts of the redesign.[9]

In fact, the FAA initially recognized noise reduction as a basic mission in defining the purpose and need for the redesign. The FAA's 2000 pre-scoping document's purpose and need section listed "reducing adverse environmental impacts such as noise and air emissions" as a "benefit."[10] Yet, the FAA's 2001 scoping document reverses this policy position and downplayed noise reduction as a goal of the redesign in favor of improving efficiency and reliability. FAA's continuing disregard for aircraft noise as a project goal for the NY/NJ/PHL airspace redesign plan has drawn frequent criticism from Members of Congress.[11]

The FAA's unsupported shift away from noise reduction and toward "efficiency" also is in direct conflict with 1996 Congressional direction that promotion of civil aviation was no longer a fundamental part of its mission.[12] The legislative history is clear on this point. As part of the 1996 FAA Reauthorization Bill, Congress eliminated the so-called "dual mandate" by

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[9] H. Rept. 109-495, DEPARTMENTS OF TRANSPORTATION, TREASURY, AND HOUSING AND URBAN DEVELOPMENT, THE JUDICIARY, DISTRICT OF COLUMBIA, AND INDEPENDENT AGENCIES APPROPRIATIONS BILL, 2007, at 16 (June 9, 2006).

[10] That document stated that:

> 1.1 Purpose and Need for Airspace Redesign Program
> The purpose of the New York/New Jersey Airspace Redesign Project is to increase the efficiency of air traffic services that are currently in place.
> In response to the airspace issue, the Federal Aviation Administration (FAA) is undertaking a complete redesign of the airspace in the metropolitan area. Some of the benefits of a major redesign include:
> - Reduced delays at major airports
> - Reduced pilot/controller workload
> - Enhanced safety
> - *Reduced adverse environmental impacts such as noise and air emissions*
> - Enhanced productivity

(DEIS, Appendix M. Section M.2, pp. 1-2) (emphasis added).

[11] For example:

> Congressman Rodney Frelinghuysen (NJ-11):
> Quite honestly, the FAA, if you will pardon the expression, has been blowing us off for a long time. They've been dismissive. [153 Cong. Record H8346 (daily ed. July 24, 2007).]
> Congressman Christopher Shays (CT-4):
> They don't care. They don't listen. They don't give us an opportunity to speak.
> I have constituents who have attended hearings, but are told. Listen to us. You can't testify.
> If we want the FAA to come and allow testimony, they say we'll come to Danbury (where the planes are at 8,000 feet), but we won't come in to Stamford where they're 4,000 feet..[153 Cong. Record H8346 (daily ed. July 24, 2007).]
> Congressman Steve Rothman (NJ-9):
> The Congress directed the FAA to consider both noise abatement and ocean routing in their plan for the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign. Instead of taking the Congress and New Jerseyans seriously, the FAA decided to make the lives of an estimated 500,000 people more difficult by significantly increasing the amount of noise that already erodes the quality of life for those of us who hear planes flying over our homes and places of work around the clock. Press Release, Congressman Steve Rothman, Congressman Steve Rothman's Statement on the FAA Airspace Redesign Project, (Apr. 6, 206), *available at*, http://rothman.house.gov/news_releases/2006 /apr6_airspaceredesign.htm.

[12] P.L. 104-264, 110 Stat. 3213, (Oct. 9, 1996).

specifically deleting "promotion" of civil aeronautics from the FAA mission (replacing it with "encouraging"), and re-emphasizing FAA's priorities in ensuring safety and security in air travel.[13] While Congress stressed that safety and security are the highest priorities, it did not in any way de-emphasize reduction of noise impacts as a fundamental part of its overall mandate.[14] The explanatory language in the Conference Report further clarifies this intent.[15]

As a result, the EIS's narrow focus on "efficiency" and "reliability" over safety and noise reduction in the EIS conflicts with long-standing Congressional directives and has resulted in an EIS that improperly "skews" the FAA's approach toward consideration of alternatives.[16]

(B) The FAA's Treatment of Alternatives and Presentation of Mitigation Measures Violates NEPA.

The FAA's treatment of alternatives and development of mitigation violates the letter and spirit of NEPA. The law requires that agencies "rigorously explore and objectively evaluate all

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[13] P.L. 104-264, 110 Stat. 3213, (Oct. 9, 1996).

[14] The relevant legislative provision reads:

TITLE IV—AVIATION SAFETY

SEC. 401. ELIMINATION OF DUAL MANDATE.
(a) SAFETY CONSIDERATIONS IN PUBLIC INTEREST.—
(1) SAFETY AS HIGHEST PRIORITY.—Section 40101(d) is amended—
(A) by redesignating paragraphs (1) through (6) as paragraphs (2) through (7), respectively; and
(B) by inserting before paragraph (2), as so redesignated, the following: "(1) assigning, maintaining, and enhancing safety and security as the highest priorities in air commerce."(2) ELIMINATION OF PROMOTION.—Section 40101(d) is further amended—
(A) in paragraph (2), as redesignated by paragraph (1)(A) of this subsection, by striking "its development and" ;and
(B) in paragraph (3), as so redesignated—
(i) by striking "promoting, encouraging," and inserting "encouraging"; and
(ii) by inserting before the period at the end ", including new aviation technology".
(b) FAA SAFETY MISSION.—
(1) IN GENERAL.—Section 40104 is amended—
(A) by inserting "safety of" before "air commerce" in the section heading;
(B) by inserting "SAFETY OF" before "AIR COMMERCE" in the heading of subsection (a); and
(C) by inserting "safety of" before "air commerce" in subsection (a).
(2) CLERICAL AMENDMENT.—The table of sections for chapter 401 is amended by striking the item relating to section 40104 and inserting the following: "40104. Promotion of civil aeronautics and safety of air commerce."

[15] Conference substitute
Section 401: House changes to section 40101(d) and Senate changes to section 40104(a). The Managers have adopted provisions from both the House and Senate bills to clarify that the FAA's highest priority is safety and security. The managers do not intend for enactment of this provision to require any changes in the FAA's current organization or functions. Instead, the provision is intended to address any public perceptions that might exist that the promotion of air commerce by the FAA could create a conflict with its safety regulatory mandate

[16] H. Rept. 104-848, FEDERAL AVIATION AUTHORIZATION ACT OF 1996, at 92 (Sept. 26, 1996).

reasonable alternatives," 40 C.F.R. § 1502.14(a), and must "devote substantial treatment to each alternative considered in detail including the proposed actions that reviewers may evaluate their comparative merits." Id. at 1502.14(b). The selection and evaluation of alternatives must ensure "informed public participation" for the decision makers. Citizens Concerned About Jet Noise Inc. v. Dalton, 48 F. Supp. 2d. 582, 607 (E.D.Va. 1999), aff'd 217 F. 3d. 838 (4th Cir. 2000). The alternatives analysis is the "heart of the environmental impacts statement." 40 C.F.R. § 1502.14. Here, because the FAA refused to include aircraft noise reduction as part of its fundamental purpose and need, it unduly constrained and piecemealed the range of alternatives considered, especially the ocean routing alternative. In doing so, the FAA downplays the serious environmental and social impacts of the redesign in favor of efficiency and so skews the alternatives analysis as to make selection of its preferred alternative—the one with the most severe impacts—inevitable.

While the FAA may take the position that it adequately considered the Ocean Routing alternative, the record shows otherwise. According to the FAA, the Ocean Routing alternative is not worthy of serious consideration because it would not reduce delay and promote efficiency and that "any refinements can at best limit its harm to efficiency. They cannot make it an efficient alternative." FAA Response to comment 4100 from NJCAAN, #43. As noted in the detailed comments from NJCAAN (which the County hereby adopts), FAA's narrow efficiency focus excluded fair consideration of such criteria as noise, community impacts and community support. NJCAAN May 10, 2007 comments. As NJCAAN notes, "it appears that this alternative is retained only to forestall public outcry and to provide any further consideration of the NJ recommendation." Id. at 24.

Further, the FAA's failure to look "holistically" at the overall impacts of the entire NY/NJ/PHL system resulted in a failure to seriously consider other alternatives such as efficient use of existing facilities by larger jets, peak hour demand control and the use of alternative transportation modes for short and intermediate trips. See NJCAAN's May 24, 2006 comments at pp. 28-30). Market-based approaches such as congestion pricing and gate controls are viable alternatives in the mix and should have been seriously explored. Market-based approaches, which include congestion-based landing fees to encourage system users to schedule their operations efficiently, have in fact been previously adopted within the study region, provide available capacity, may be instituted either by the FAA or by an airport proprietor to manage airport congestion. One approach that may be implemented by an airport proprietor could include a properly structured peak-period pricing program where the objective is to align the number of aircraft operations with airport capacity during severely congested periods of peak airfield usage.

The EIS noise mitigation report even introduces alternatives without adequate treatment. As noted in NJCAAN's May 10, 2007, comments, some of the mitigation alternatives in areas immediately surrounding Liberty Newark International Airport ("EWR"), such as route changes, were only first introduced at the April 6, 2007 meeting and lacked any scoping and any public comment but could have profound operational effects. NJCAAN comments at 16 (May 10, 2007).

Clearly, the FAA's failure to seriously explore such options with sufficient public input as part of overall solution to system problems reflects a "single minded focus" not to undermine the growth objectives of the airlines in order to truly mitigate noise and other adverse environmental impacts on affected communities. The FAA's refusal to "return to the drawing board to develop alternatives" where minimizing noise is part of the purpose because "any plan that extensively addressed the airspace limitations of the region cannot simultaneously extensively improve noise situation." Response to NJCAAN comments 4100 # 148. This shortsighted approach conflicts with NEPA's mandate in section 101 that federal agencies use "all practicable means" to achieve six broad goals of environmental policy, including "achieving a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities." 42 U.S.C. § 4331(b)(5).

The FAA's failures also extend to its comparison of alternatives under its proposed mitigation plan. The Supreme Court has considered the duty of federal agencies to mitigate under NEPA in Robertson v. Methow Valley, 490 US 332, 352 (1989). The Court held that the "omission of a reasonably complete discussion of mitigation measures would undermine action forcing functions of NEPA. Without such discussion, neither the agency nor other interested groups and individuals could properly evaluate the severity of the adverse effects of the action." **The FAA's mitigation analysis fails this test.** Most significantly, it does not compare the mitigated preferred alternative to the No Action alternative. The result is that the true impacts to the citizens of Rockland County and many other communities throughout the region are seriously distorted. The No Action alternative must be used as the baseline to measure present day noise impacts. As noted in the detailed comments submitted by Harris, Miller & Hanson Inc. on behalf of Westchester County (June 22, 2007), this comparison is a serious defect and directly conflicts with FAA Order 1050.1 E, "Environmental Impacts: Policies and Procedures" which states that noise exposure should be "compared to the No Action alternative for the same time frame." As the Harris study notes, while "the mitigated preferred alternative reduces noise exposure compared to the unmitigated preferred alternative, the noise increases compared to the No Action alternative as still likely to be detectable." Tellingly, that study notes that "both the mitigated and unmitigated versions of the preferred alternative result in large areas around Westchester Airport (HPN) where noise exposure will increase from three to eight (or more) decibels . . . which is equivalent to more than a six-fold increase . . . ." Id. at 4. This impact will most certainly be felt by residents that have been used to much lower noise level impacts. What is most significant is that the FAA's failure to provide a true comparison of such impacts misleads the public and violates a cardinal tenant of NEPA—that the process must involve a full and complete presentation of environmental impacts and alternatives to facilitate public comment so as to fully inform the decision makers.

Further, as noted in the attached Fidell Report, the FAA's mitigation analysis never attempted to do a systems-based analysis. Fidell notes that some potential mitigation options such as flow constraints on operations at small airports, were rejected based on operational evaluations described in Appendix O of the report. He also notes that "at no point was a truly systems based analysis attempted in which, for example, busy period flow constraints on operations at small airports might enable adoption of procedures that could mitigate noise impacts of heavy air traffic flows on large populations in airspace remote from a small airport."

See Fidell. He further notes that "such failures call into question FAA's entire approach to optimizing region wide airspace redesign." Id.

Finally, Rockland County has just commissioned a land value appraisal of impacts of the preferred alternative on County residents. As the attached reports of Beckmann and Lane discuss, the preferred alternative will route hundreds of flights over Rockland County every day and will have a direct and measurable impact on property values even under the mitigation proposal (see Lane and Beckmann Reports). While this report was completed after the close of the comment period, it does present significant new information that magnifies the importance of reopening the comment period to ensure that the FAA fully considers all impacts and reassesses all reasonable alternative mitigation measures.

(C) The Preferred Alternative's Impact on Real Property Values is, by itself, Reason for Reconsidering all Options.

We include two reports by experts in the field of assessing aircraft noise impacts on real estate property values and related effects on the tax base. Dr. Theodore Lane of Thomas/Lane and Associates (Seattle, Washington area) has extensive experience nationally in assessing these impacts. William Beckmann of Beckmann Appraisals (Tappan, New York) has detailed knowledge of the Rockland County properties and has done a careful assessment of the impact of additional overflights on affected parcels.

Dr. Lane notes that airport approach and departure corridors generate a range of socio-economic impacts that are induced by aircraft noise. See Lane Report at 5. In the case of Rockland County, he estimates that 16,138 persons living in the south central part of the County will experience an increase in aircraft noise of about 7 DNL and will perceive that aircraft noise over their homes has roughly doubled. Id.

Dr. Lane also believes that, while absolute aircraft noise levels will be moderate, relative aircraft noise levels will increase significantly. The fact that relative noise levels are important is evidenced by the FAA's willingness to alter approach/departure flight tracks associated with SeaTac International Airport to reduce them in the City of Mercer Island – a community with most of the same noise, socio-economic and demographic characteristics found in Rockland County. Id.

Further, he has reason to believe that the NY/NJ/PHL airspace redesign EIS underestimates the actual noise impacts that will occur for two reasons:

1) In a crowded, high density, high usage area such as the NY/NJ/PHL metropolitan area, additional capacity will almost certainly produce feedback effects and cause corridor use patterns to increase; and

2) The aircraft activity forecast contained in the EIS is that it gives no recognition to the potential development of additional major regional airports once additional airspace capacity has been added to the region.

Further, Dr. Lane feels that in addition to direct noise impacts, such noise-induced impacts as the blighting of residential areas, the downscaling of the socio-economic characteristics of impacted businesses and population, increasing the cost of delivering community services necessary to maintain a constant quality of life in the impacted areas, and protecting the ability of school children to learn are all omitted in the EIS. This is particularly egregious since FAA Advisory Circulars specifically direct airport authorities to address such issues. Id.

The Beckmann Report evaluated whether the change in the flight patterns in the FAA 's preferred alternative that will route hundreds of flights over Rockland county can reasonably be expected to affect the value of real property, both vacant and improved, within the impacted County flight path. Beckmann conducted this analysis based on the unmitigated and mitigated scenarios, the latter involving routing flights at a higher altitude in order to ameliorate the degree of noise exposure at ground level.

Beckmann concludes that, in the unmitigated scenario, there will be a devaluation of the properties within the noise zone of 3% to 7%. Beckmann Report at 17. The consequences will result in a devaluation of the affected properties and a decrease in their tax assessment. The resulting consequence will be a shift in the real property taxes throughout the entire town, school districts and County, increasing the tax rates and increasing the absolute amounts of real property taxes paid by the affected properties. Id. Under the mitigated scenario, the absolute impact may be less but it will be more extensive since it will cover a larger land area. Beckmann estimates that there will be a devaluation impact of 1% to 3%. That will likewise cause a shift in taxes to those municipalities that do not experience the likely devaluation of their property. Id.

Thus, it is readily apparent that the FAA's preferred alternative could have very significant impacts on property values and tax assessments. These critical issues need to be carefully assessed through an open and public process before the FAA can issue its ROD.

(D) The Noise Impact Studies Use an Unreliable Methodology, are Biased, and are so Speculative that More Studies are Necessary.

Rockland County, like every county across the region, is concerned that the additional overflights of its homes and parks which the airspace redesign enables and encourages will diminish the quality of its citizens' lives. The County's comments submitted today speak to common issues: that exclusive reliance on the Day-Night Average Sound Level ("DNL") metric as a predictor of community annoyance, and on the supposed precision of FAA's noise modeling assumptions, is unfounded. In reality, the FAA's obsolete methods and mistaken confidence in its noise impact predictions are so uncertain that more accurate, credible, and broader-based assessments are required to inform decision makers about the likely consequences of the proposed action.

Reliance on FAA's obsolete dosage-effect relationship to predict noise impacts is a central problem because there is little reason to believe that FAA's prospective noise modeling

has meaningfully estimated future aircraft noise exposure levels, nor that FAA has properly interpreted the consequences of its dubious estimates. See Fidell Report, Exhibit A. The prediction equation that FAA relies on to interpret DNL estimates systematically under-predicts the annoyance of aircraft noise exposure over a wide range of critical values. Id. Scientists have demonstrated that the use of DNL to predict annoyance with aircraft noise is "demonstrably biased, inaccurate, and unreliable." Id. Disclosing noise exposure values that are known to actually annoy more people than FAA's obsolete and discredited dosage-effect relationship predicts is at best an exercise in malicious compliance with NEPA.

The EIS also unjustifiably presents the results of FAA's noise modeling as precise engineering calculations. In fact, they are no more than speculative predictions—a house of cards built one assumption on top of another.[17] Fidell has critiqued this practice, noting the fundamental implausibility of asserting that guesses made a decade in advance about a myriad of operational variables (types and numbers of aircraft, flight paths, times of day, etc.) command respect as exact "data." The FAA even carries out its model calculations to the nearest millionth of a decibel[18] (when in reality, the underlying uncertainty is about six orders of magnitude greater[19])—a practice that insults the intelligence of the citizens who must live with the results of the airspace redesign.

The County's indignation worsened when it read that the FAA tried to take over some local functions. In the EIS's Executive Summary, the Agency mentioned that it used noise analysis "to determine whether the existing and planned land use is compatible with the change in noise exposure." EIS at ES.6.1. Land use zoning and planning are still reserved to the local government, not to the FAA. It is not the purpose of NEPA or within the scope of FAA's responsibilities to infringe on local authority. With that kind of statement, the County wonders whether the airports in the study region exist to serve the many public interests of the region, or whether the region exists to serve aviation-related interests.

(E) Environmental Justice Concerns are Still Present and Unacceptable.

Rockland County believes that the EIS's treatment of environmental justice issues is arbitrary and capricious.[20] The County is concerned that without properly addressing these

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[17] Indeed, Rockland County notes that the FAA did not even have an on-the-ground monitoring station in Rockland County to measure ambient or aircraft noise levels. See EIS Figure 3.14.

[18] See, e.g., EIS Appendix E at E-46 ("The original computations in the DEIS are based on using the computed noise values out to six decimal places.")

[19] See Fidell, note k.

[20] Courts will review an agency's environmental justice analysis included in an EIS under the "arbitrary and capricious" standard of the Administrative Procedure Act. Communities Against Runway Expansion, Inc. v. Fed. Aviation Admin., 355 F.3d 678 at 685 (D.C. Cir. 2004). In Communities Against Runway Expansion, the D.C. Circuit found that "an 'environmental justice' analysis [is] intended to evaluate whether the project would have disproportionately high and adverse human health or environmental effects on low-income and minority populations." Id. It reasoned that, notwithstanding bar against claims by third parties under the Environmental Justice Executive Order 12898, "FAA exercised its discretion to include the environmental justice analysis in its NEPA evaluation, and that analysis therefore is properly subject to the 'arbitrary and capricious' review under the

issues, an excessive number of people will be hurt by very real impacts. This concern was echoed by EPA in its comments on the draft EIS in which the agency requested information on outreach to environmental justice communities impacted by noise and mitigation/minimization of noise exposure to those communities. The Public Involvement Program, for example, fails to describe outreach and consultation with Tribes, including government-to-government consultation required by Executive Order and meaningful consultation with tribal communities. See EIS at 4-41 through 42.

NJCAAN also raised environmental justice issues on behalf of the 954 people who will be introduced into the DNL 65 contour who were not there previously. These people constitute an impacted environmental justice group. See NJCAAN Comments on the Mitigation Reports (May 10, 2007), EIS Appendix Q at 543. Rockland County has areas of subsidized housing and wants to make sure they, like the residents near EWR, are treated with dignity, respect, and fairness. For example, the Beckmann Report identified the East Ramapo Central School District—which is located under the projected flight path—as being made up having nearly 80% minority students.

Several executive branch documents provide guidance and direction to federal agencies on conducting environmental justice analysis under NEPA. Among others, these include Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population (Feb. 11, 1994), CEQ, Environmental Justice: Guidance under the National Environmental Policy Act (Dec. 10, 1997), DOT Order 5610.2 (Apr. 15, 1997); and FAA Order 1050.1E §16.1 & 2 (June 8, 2004). While the EIS identifies that it has followed DOT ORDER 5610.2, it does not cite or describe the procedures followed to comply with the FAA specific environmental justice requirements. For example, the EIS fails to discuss alternatives that would reduce the effects on the environmental justice population, and also fails to identify and "provid[e] offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by DOT programs, policies, and activities" as required by DOT Order 5610.2(c)(2).

In addition, the EIS fails to follow DOT and FAA environmental justice procedures. According to the EIS, the Preferred Alternative "would result in disproportionate impacts to minority populations and, therefore, would result in significant environmental justice impacts." EIS at 4-46. Near EWR, for example, the effect was particularly acute with 50 percent of relevant census blocks being significantly impacted. EIS at 4-44. Nonetheless, the EIS fails to provide analysis of the specific effects caused by the noise impacts, including those that may especially affect, or amplify the effects of noise impacts on, minority or low-income populations. Frequent causes of synergistic effects from noise impacts include: (1) cumulative impacts from other sources of ambient noise; (2) noise-susceptible housing/school due to type, age, and standard of construction; and (3) adverse effects on already constrained outdoor recreation opportunities.

APA." Id. at 26. See also, Mid States Coalition for Progress v. Surface Transportation Board, 345 F.3d 520, 541 (8th Cir. 2003); Senville v. Peters, 327 F. Supp. 2d 335, 345 (D. Vt. 2006).

Moreover, as with other areas, the EIS fails to consider secondary and induced impacts on minority and low-income communities, which tend to be more sensitive to environmental, land use, and economic changes and impacts. Further, while the EIS lacks depth and breadth of analysis of effects, it entirely neglects to specifically identify and address mitigation applicable to disproportionately and adversely impacted minority and low-income populations, as required under the Executive Order 12898, and FAA, *Environmental Impacts; Policies and Procedures*, Environmental Justice, 16.2(a)(1)(F) (providing that the EIS should "describe possible mitigation to reduce the effect on the disproportionately affected low income and minority populations").

Given the strong federal policies promoting environmental justice and the FAA's clear failure to follow those mandates, the FAA needs to reassess the Environmental Justice implications of its preferred alternative.

(F) The Inevitable Secondary and Cumulative Effects Require Additional Discussion.

Rockland County disputes the FAA's conclusion that none of the Airspace Redesign alternatives are expected to result in shifts in population or growth, increased demand for public services, or changes in business and economic activity. EIS at 4-48. Instead, by its very nature, the airspace redesign will lead to growth and economic activity that FAA should have considered under the EIS.[21]

One of the key purposes of the airspace redesign is to "accommodate growth" and increase the carrying capacity of the airspace serving local airports. EIS at ES-1. New runways, more warehouses, and other growth-related effects are a foreseeable and "but for" result of the airspace redesign. Indeed, readily foreseeable growth at Stewart International Airport ("SWF"), will be encouraged and facilitated by the increased airspace capacity, but has apparently not been considered in the EIS. The Port Authority of New York and New Jersey ("PANYNJ"), which has recently agreed to sign a 93-year lease for the operation of this airport, plans an initial investment of $150,000,000 to expand commercial air service and develop SWF into a resource for the greater Hudson Valley. See *Stewart International Airport News Letter* (August 2007), *available at* http://www.swfny.com/pdfs/STEWART_NL_optimized_singlePage.pdf.

However, the effects of the airspace redesign have only been considered with respect to noise impacts caused by the reconfiguration and not secondary impacts such as those at SWF. Consistent with NEPA requirements, the EIS should have considered the induced growth effects caused by increased capacity, including impacts to, among other things: air traffic, noise, vibrations, air quality, land use, traffic circulation, congestion, sprawl, water quality, noise, and safety.

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[21] The proposed action is intended to increase the efficiency and reliability of the airspace structure and air traffic control system in the study area. "Efficiency" of airspace use in this context can hardly mean anything other than permitting greater numbers of IFR flight operations to traverse the study area airspace per unit time. Absent the proposed action, such increases could not occur; if they could, there would be little purpose or need for the proposed action.

The County's concern over secondary impacts was not lessened by the FAA's response—or lack thereof—when the Agency was asked about the noise impacts from future expansion at SWF. The Agency avoided the noise issue and instead mentioned how the airport is "50 miles north of LGA as the crow flies. That is enough distance to isolate it from the biggest changes to the airspace in the Preferred Alternative . . . it can expand greatly without putting stress on the Preferred Alternative." The County is not sure what that response means and would like the FAA to clarify how the expected growth at SWF will affect noise levels in Rockland County.[22]

Non-responses like the one above fail to live up to the FAA's own guidance which recommends that the Agency use the NEPA process to "Rigorously analyz[e] the reasonably foreseeable direct, indirect, and cumulative environmental impacts of the proposed action and alternatives." DOT FAA Order 1050.1E CHG 1, Section 200d.3 (Mar. 20, 2006), *available at* http://www.faa.gov/regulations_policies/orders_notices/media/10501ECHG.pdf. In any case, the FAA can hardly claim that a two paragraph treatment of such an important topic is "rigorous." See EIS at 4-48. At the very least, as EPA mentioned in its comments on the DEIS, the FAA "should make it clear that while this redesign does not in itself increase any airport capacity, it does facilitate future airport expansions." EPA comments on DEIS (June 8, 2006).

Further, Rockland County expects secondary effects as a result of the new noise "shadow" over a large swath of the County. As explored in detail in the attached Beckmann and Lane Reports, the County expects to take a big hit in its property values. Rental units will rent for less; homes will be worth slightly less; stigma will attach to those properties unlucky enough to fall underneath the flight path. Even a "small" three percent property devaluation under the main flight path would lead to a large loss. See Beckmann's report.

The County also expects cumulative effects—those small, incremental impacts that collectively become significant—and requests that the FAA improve its NEPA-required discussion in this regard.[23] EPA, evidently, felt the same way because it expressed concern about cumulative impacts in the draft EIS.[24] Any move by FAA to make the skies safer and more efficient will eventually lead to a thousand small changes on the ground.

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[22] The growth appears to be phenomenal. Based on numbers and comments on the SWF website, 2007 passenger traffic is expected to be 900,000 (compared to 26,917 in 2006). The year-over-year increase is 3243%--huge growth by anyone's definition. See http://www.swfny.com/passcargooperations.html.

[23] NEPA requires agencies to consider the effects of both cumulative actions and cumulative impacts. 40 C.F.R. §§ 1508.25, 1508.7. A cumulative action is one "which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." 40 C.F.R. § 1508.25(a)(2). A cumulative impact is defined as follows:

> The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7.

[24] "Furthermore, the cumulative impacts of any planned airport expansion should be discussed in the DEIS. For example, the Philadelphia Airport is well into a Capacity Enhancement Program which will take advantage of

Indeed, NEPA case law on the treatment of cumulative impacts supports Rockland County's position. See Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985)(citing Cabinet Mountains Wilderness/Scotchman's Peak Grizzly Bears v. Peterson, 685 F.2d 678, 683–84 (D.C. Cir. 1982)), overruled on other grounds, Sabine River Authority v. U.S. Dep't of Interior, 951 F.3d 669 (5th Cir. 1992). In Fritiofson, the court stated that a "meaningful" cumulative impact analysis must identify the following:

- The area in which the effects of the proposed project will be felt;
- The impacts that are expected in that area from the proposed project;
- Other past, present, and reasonably foreseeable actions that have or are expected to have impacts in the area;
- The impacts or expected impacts from these other actions; and
- The overall impact that can be expected if the individual impacts are allowed to accumulate.

Fritiofson, 772 F.2d at 1245. To be adequate, then, the EIS should address the five points identified by the Fifth Circuit.[25]

The FAA's cumulative impact analysis falls far short of this criteria. The Agency determined, for example, that airline operations at SWF were "not reasonably foreseeable," EIS at 4-83, despite that airport's 3243% growth in passenger traffic. Inexplicably, the EIS reviews 34 other airport projects that have a potential for noise impacts but finds that not one has the potential for significant cumulative noise impacts. See Table 4.25, EIS 4-75. In effect, the table seems to examine each project one by one. Thus, rather than assessing how all these reasonably foreseeable projects together with all past and present projects will be impacted by the airspace redesign, the FAA chose simply to segment one project from another. This approach runs counter to the very essence of an appropriate cumulative impact analysis. See Grand Canyon Trust v. F.A.A., 290 F.3d 339, 342 (D.C. Cir. 2002) ("While the factual settings differ in some respects from the instant case, the consistent position in the case law is that, depending on the environmental concern at issue, the agency's EA must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum").

This topic should be further researched to verify whether the FAA followed a reasonable method of calculating cumulative impacts. Cumulative impact must be studied, not "swept under the rug," as the FAA did here.

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increased airspace capacity. Also . . . the FAA has commissioned a study to determine if one of six airports located near New York City could be expanded. That expansion would also take advantage of any increase in airspace capacity. The outcome of these projects will be changed by the presence of a more efficient airspace in the NY/NJ/PHL region. EPA Comment Letter (June 8, 2006).

[25] Note, however, that the Supreme Court has recognized that the responsible agency has discretion to determine "the extent and effect" of cumulative impact factors. Kleppe, 427 U.S. at 413-414.

(G) The Impacts on Section 4(f) Resources Require, at a Minimum, Additional Comment Period Before the ROD can be Released.

The Secretary of Transportation may approve a project that requires the "use" of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance only when two conditions are met: 1) when there is no prudent and feasible alternative to the use of such land; and 2) when the project includes all possible planning to minimize harm resulting from the use. 49 U.S.C. § 303(c)(1)-(2). Indirect adverse impacts, such as noise and light, constitute a constructive use that prevents the use of these so-called "4(f)" resources for their intended purpose.[26] EIS at 5-42.

The EIS indicates that the FAA is still studying the effect of noise increases and light pollution on 4(f) resources, and would include that evaluation in the ROD. In fact, the agency lists twelve "4(f)" areas which it is still studying—an admission that a substantial amount of work is not yet done. Treasures like the Appalachian National Scenic Trail and the Delaware Water Gap National Recreation Area are two of the parks whose future will be decided with essentially no public participation. See, e.g., EIS at 5-46, 59, 64, 77, 79, 95, 99, 101, 117, 120, 122, and 124.

Even the National Park Service ("NPS") seems concerned. Despite NPS's environmental resources and visitor enjoyment being at risk, the FAA did not address NPS's concerns related to noise analysis methodology. See NPS Comments on Noise Mitigation Report (May 15, 2007) at 2. Like the Park Service, Rockland County believes that DNL is not appropriate as the only metric for determining noise impacts to parks. No technical rationale supports use of DNL to predict noise impacts in outdoor recreational settings. See Fidell Report. "Additional metrics, such as time above ambient and percent time audible, provide a more complete and accurate description of potential noise impacts on national parks and other noise-sensitive receptors." NPS Comments at 3. Indeed, the FAA's NEPA procedures recognize that the agency "will consider use of appropriate supplemental noise analyses in consultation with officials having jurisdiction for national parks, national wildlife refuges and historic sites including traditional cultural properties where a quiet setting is a generally recognized purpose . . . ." Park 1050 at A-65 (sec. 14.8). Yet, here the FAA simply decided that using any metric other than DNL was simply "too complex," even for assessing noise impacts to such sensitive resources. FAA response to NJCAAN comments at 43. This cavalier approach stands in marked contrast to the FAA's action in Grand Canyon Trust v. FAA, 290 F. 3d. 339 (D.C. Cir. 2002) where the agency conducted a detailed supplemental noise analysis that addressed the natural quiet of Zion National Park from a proposed construction of a local replacement airport.

Here the County submits that going beyond DNL to evaluate both maximum noise level, and total number of noise intrusions to these resources is a reasonable, scientifically valid

[26] The term "4(f)" simply refers to the original section of the Department of Transportation Act. Even though the section has been recodified, the original usage continues as a way to prevent needless confusion. See 23 C.F.R. § 771.107(e), n.2.

approach. The County also maintains it must make its noise impact analyses available for additional public comment so that the impacts to these sensitive resources may be fully evaluated by decision-makers prior to issuing the ROD. While the 4(f) findings may be made outside the EIS process, the analysis of impacts to 4(f) resources is properly part of, and must be considered under, the EIS.

(H) The Out-of-Date or Incomplete Information Require a Supplemental NEPA Document and Public Comment.

In the above arguments, Rockland County has illustrated how the FAA is flying its models on data that are either old, incomplete, or just plain wrong. For example, the FAA's flight projections were all made before the tragic events of September 11, 2001—nearly six years ago. EIS at 68. These projections would therefore not take into account huge price increases in aviation fuel and the now-imminent expansion of Newburgh/Stewart International Airport ("SWF"). FAA's use of an obsolete dosage-effect relationship to estimate noise impacts from DNL values has not been technically defensible for more than a decade. And the noise impacts on many popular parks have not even been released yet.

These shortcomings directly contravene the NEPA implementing regulations that require environmental information to be "of high quality." 40 C.F.R. § 1500.1. High quality information furthers the important policy goals of "[a]ccurate scientific analysis, expert agency comments, and public scrutiny." Id. Rockland County encourages those policies and hereby requests the FAA to take whatever steps are necessary to base its decision on high quality information.

One of the Agency's first steps, according to NEPA guidance, could include issuing a supplemental EIS. NEPA regulations are clear on this point: "If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement. 40 C.F.R. § 1502.22. Here, the incomplete "4(f)" data do not appear to be exorbitant, yet are essential to a proper decision. Instead of pushing the ROD out the door, the FAA should wait until the parks study is finished and include it in a supplemental EIS.

This same supplemental EIS should use another metric than DNL, or explain why DNL is an appropriate measure of noise impact. The rule is that the FAA "shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 C.F.R. § 1502.24. It is hard to square this unambiguous regulation with expert reports that the FAA is still using noise impact methods that are "demonstrably biased, inaccurate, and unreliable." Fidell Report. Here, the FAA should not be given deference because it is not basing its decision on "generally accepted scientific approaches or research methods." See Methow Valley Citizens Council, 490 U.S. at 334 (Agencies are entitled to substantial deference if they rely on the preceding techniques). A supplemental EIS could cure FAA's deficiency in this regard.

The recent takeover of SWF by the PANYNJ drastically changes the EIS's baseline assumptions. NEPA regulations require a supplemental EIS if there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § Section 1502.9(c). With rapid, large-scale changes at SWF, the FAA must rework its models so that it "has the best possible information to make any necessary substantive changes in its decisions regarding the proposal." Id.

Case law supports the County's suggestion that the NEPA process must be reopened because of the insufficiency or quality of the data. In Seattle Audubon Soc. v. Espy, 998 F.2d 699 (9th Cir. 1993), citizen groups filed action to challenge the legality of an EIS and the ROD. Directing its comments at the data used in the EIS, the court found that the Forest Service relied on "stale scientific evidence, incomplete discussion of environmental effects . . . and false assumptions." Id. at 705. The Court then held that the district court did not err in concluding that the Forest Service must re-examine its chosen alternative. Id. In Lands Council v. Powell, 395 F.3d 1019 (9th Cir. 2005), environmental groups challenged the timber harvest approved by the Forest Service as part of a "watershed restoration" project in the Idaho Panhandle National Forest. Here, the court looked at the data and found that they were "too outdated to carry the weight assigned to it. We conclude that the lack of up-to-date evidence on this relevant question prevented the Forest Service from making an accurate cumulative impact assessment of the Project on the habitat and population of the Westslope Cutthroat Trout." Id. at 1021. As a final example of legal support, the County cites to Northwest Ecosystem Alliance v. Rey, 380 F.Supp.2d 1175 (W.D.Wash. 2005). There, environmental and conservation groups challenged certain forest management plan standards on the basis of NEPA and other laws. After repeating the NEPA requirements of complete, high quality information, the court again held that "[r]elying on outdated data or not acknowledging the limitations in a methodology are grounds for setting aside an EIS. These three cases make clear that the FAA's EIS is at risk if not supplemented by additional, better data and methods.

In addition to the above arguments, Rockland County submits that the FAA's rigid reliance on the outdated non-peer-reviewed DNL metric violates the Office of Management and Budget ("OMB") Data Quality Act Guidelines. See Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106–554; H.R. 5658). That Act requires OMB to "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies." The OMB guidelines, define "quality" as an encompassing term comprising utility, objectivity, and integrity, with the middle term being especially useful here:[27]

> "Objectivity" is a measure of whether disseminated information is accurate, clear, complete, and unbiased and whether that information is presented in an accurate clear, complete and unbiased manner.

[27] See Office of Management and Budget Information Quality Guidelines (Oct. 1, 2002), *available at* //www.whitehouse.gov/omb/inforeg/iqg_oct2002.pdf

The Data Quality Act also has a presumption favoring peer-reviewed information. As a general matter, in the scientific and research context, OMB regards technical information that has been subjected to formal, independent, external peer review as presumptively objective. The guidelines state in paragraph V.3.b.i: "If data and analytic results have been subjected to formal, independent, external peer review, the information may generally be presumed to be of acceptable objectivity. However, this presumption is rebuttable based on a persuasive showing by the petitioner in a particular instance."

The County has serious reservations that the use of DNL meets these important DQA criteria. As Dr. Fidell notes, the DNL metric relies on the 1992 FICON Report that was never peer reviewed and has been discredited by other experts through detailed peer reviewed studies. Fidell Report at 1-2. If the FAA still believes that the use of this outdated non-peer-reviewed metric still meets the OMB criteria, it must provide "persuasive evidence" and subject that evidence to the light of public comment.

Conclusion

As these comments and analysis clearly demonstrate, it is imperative that the FAA prepare supplemental NEPA documentation and seek public comment before issuing its ROD. The consequences of not doing so are simply too great.

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CRITIQUE OF AIRCRAFT NOISE ANALYSIS OF FINAL ENVIRONMENTAL IMPACT STATEMENT FOR NEW YORK/NEW JERSEY/ PHILADELPHIA METROPOLITAN AREA AIRSPACE REDESIGN

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August 31, 2007

The disclosure and evaluation of aircraft noise impacts in the final EIS (FEIS) does not meet rigorous NEPA requirements for reasons discussed below.

The primary descriptor of aircraft noise, "DNL," adopted in the FEIS is not a reliable predictor of community response to aircraft noise

The principal noise metric on which the FEIS relies for quantifying aircraft noise is Day-Night Average Sound Level, abbreviated as DNL and represented in mathematical expressions as $L_{dn.}$ DNL is a time-weighted 24-hour average index of acoustic energy. Neither DNL nor any other noise metric is a direct measure of noise *impacts* on overflown populations. The only utility in estimating DNL values for purposes of quantifying aircraft noise impacts is as an indirect predictor of community response.

Per FAA Order 1050.1E and FAR Part 150, the EIS relies on a fifteen-year-old report of the Federal Interagency Committee on Noise (FICON) to technically justify its practice of describing aircraft noise in units of DNL. (FICON was a voluntary grouping of several federal agencies that was formed, without legislative charter, to coordinate administrative and policy positions with respect to environmental noise matters.) FICON's 1992 report[a], which has never been peer reviewed, asserts that DNL is the "appropriate" descriptor of aircraft noise because it "has been found to correlate well with community annoyance, as measured in terms of percentage of exposed persons who are 'Highly Annoyed.'" (FICON, 1992, Section 2-2).

The FAA asserts that it discloses DNL values produced by aircraft operations in NEPA-required documents in order to predict the prevalence of high annoyance in aircraft noise-exposed populations. According to FICON, the percent of a residential population that is highly annoyed ("%HA") by any form of transportation (including aircraft) noise is best predicted from DNL values as $100 / (1+ e^{(11.13-0.141L_{dn})})$. The data points in Figure 1 (adapted from Fidell and Silvati[b]) are empirical measurements of the prevalence of annoyance as measured in social surveys conducted world-wide. The curve shows the dosage-effect relationship that FAA relies on to transform DNL values into estimates of the prevalence of annoyance due to transportation noise.

Figure 1 reveals that FICON's curve systematically under-predicts the annoyance of the bulk of the (red) aircraft noise data points. Furthermore, FICON's prediction equation [$(\%HA) = 100 / (1+ e^{(11.13-0.141L_{dn})})$] accounts for less than 20% of the variance in the data set that has accumulated over four decades of more than 50,000 interviews about aircraft noise impacts in 326 communities in the U.S. and abroad. The overwhelming weight of scientific evidence published in peer-reviewed professional journals subsequent to publication of the 1992 FICON report indicates that the dosage-effect relationship for converting DNL values into estimates of the prevalence of high annoyance with aircraft noise is biased, inaccurate, and unreliable (*cf.*

[a] Federal Interagency Committee on Noise (FICON) (1992). "Federal Agency Review of Selected Airport Noise Analysis Issues," Report for the Department of Defense, Washington, D.C.

[b] Fidell, S., and Silvati, L. (2004) "Parsimonious alternatives to regression analysis for characterizing prevalence rates of aircraft noise annoyance," Noise Control Eng. J., 52 (2), pp. 56-68

Finegold, Harris and vonGierke, 1994[c]; Fidell, 2003[d]; Fidell and Silvati, 2004[e]; Miedema and Vos, 1998[f]; and Schomer, 2002[g], *inter alia*).

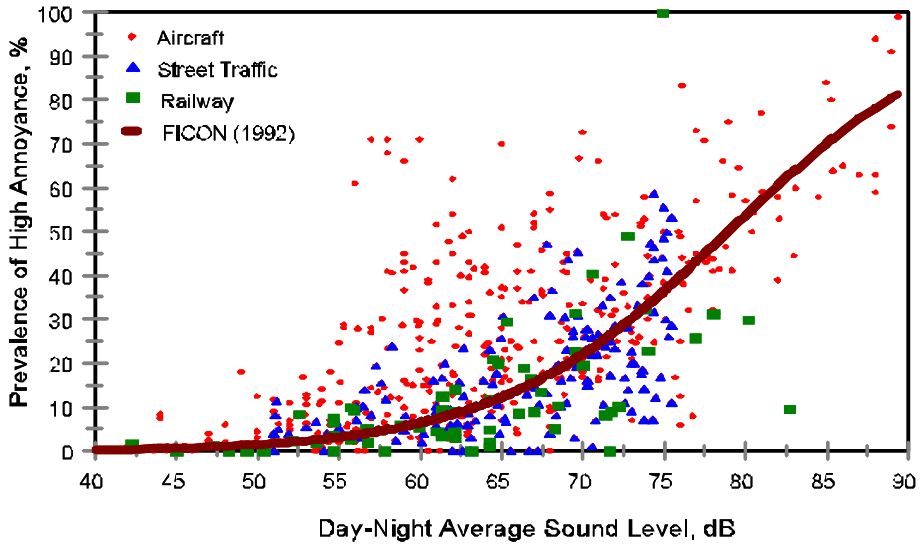

Figure 1: FAA's dosage-effect relationship between transportation noise exposure and annoyance systematically under-estimates the prevalence of aircraft noise-induced annoyance in communities.

For example, Miedema and Vos[h] demonstrate that source-specific dosage-effect relationships (that is, predictive equations restricted to particular surface and airborne sources of transportation noise) are technically superior to FICON's obsolete, one-size-fits-all predictive equation. Further, Fidell and Silvati[i] show that predictions of the prevalence of annoyance based

[c] Finegold, L., Harris, C. S., and von Gierke, H. E. (1994). "Community annoyance and sleep disturbance: Updated criteria for assessing the impacts of general transportation noise on people," Noise Control Eng. J., 42(1), 25-30.

[d] Fidell, S. (2003) "The Schultz curve 25 years later: a research perspective", J. Acoust. Soc. Am., 114(6), pp. 3007-3015.

[e] Fidell, S., and Silvati, L. (2004) "Parsimonious alternatives to regression analysis for characterizing prevalence rates of aircraft noise annoyance," Noise Control Eng. J., 52 (2), pp. 56-68.

[f] Miedema, H., and Vos, H. (1998). "Exposure-response relationships for transportation noise," J. Acoust. Soc. Am., 104(6), 3432-3445.

[g] Schomer, P. (2002). "On normalizing DNL to provide better correlation with response", Sound and Vibration, pp. 14-23

[h] Miedema, H., and Vos, H. (1998). *op. cit.*

[i] Fidell, S., and Silvati, L. (2004). *op. cit.*

on weighted averages of the field data on the prevalence of annoyance at specific DNL values support more accurate characterization of community annoyance than prediction equations constrained by the statistical assumptions of regression analyses.

A 2003 study notes that "FICON's doctrine has codified the status quo in understanding of community reaction to noise as of a quarter century ago [and] led to repeated mis-prediction of community reaction to noise exposure . . . A greater proportion of the population than predicted by FICON is demonstrably highly annoyed by aircraft noise at the de facto threshold of federal concern (L_{dn} = 65 dB); many airport noise controversies remain inexplicable from the perspective of official recommendations of compatible land use, and vigorous opposition to construction of airport infrastructure is more the rule than the exception."[j]

The FAA acknowledges that supplemental noise analyses may be appropriate to "characterize specific noise effects . . . [and that] supplemental noise analyses are most often used to describe aircraft noise impacts for specific noise sensitive locations or situations and to assist in the public's understanding of noise impact." (FAA Part 1050 App. A- 63, 14.5). That the current circumstances constitute just such a situation is clear in the light of the FAA's response to draft EIS (DEIS) comment 4100 (Page 5, Comment Number 12), in which the agency notes that "New Jersey seems to be particularly sensitive to noise."

Community reaction to the Expanded East Coast Plan (a predecessor to the current Airspace Redesign effort) proved to be far more vigorous and sustained than FAA expected from predictions made on the basis of FICON's dosage-effect relationship. Rather than conclude that its DNL-based predictive method is unreliable, however, FAA did not even consider supplementing its inappropriate predictions of community response in the current EIS with more modern, source-specific methods. The agency thus knowingly under-predicts aircraft noise impacts in the FEIS.

FAA's reliance on an outmoded method for predicting community response to aircraft noise ignores a fundamental NEPA requirement that agencies must "insure the professional integrity, including the scientific integrity, of the discussions and analyses in environmental impact statements." (CEQ regulations at 1520.24). FAA's technically unjustifiable practice also defies the provisions of the Data Quality Act, which require that federal agencies "maximize the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal Agencies." (P.L. 106-554). In order to meet this rigorous standard, the agency must apply the most accurate peer-reviewed methods for assessing community response to aircraft noise, and not rely on the outdated policy recommendations of the FICON report.

The FEIS is also deficient in failing to include a sensitivity analysis of the consequences of not adopting a more modern and well-documented dosage-effect relationship than that identified by FICON to transform estimated DNL values into numbers of persons highly annoyed by airspace redesign alternatives.

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[j] Fidell, S. (2003) "The Schultz curve 25 years later: a research perspective", J. Acoust. Soc. Am., 114(6), pp. 3007-3015.

No technical rationale supports use of DNL to predict noise impacts in outdoor recreational settings

FAA lacks any widely-accepted technical rationale for extending its preference for expressing aircraft noise exposure in units of DNL to assessment of noise impacts in non-residential settings, such as outdoor recreation. Although the FEIS acknowledges that land areas underlying the study area for the airspace redesign contain "numerous city, county, state, and national parks, wildlife refuges, and historic sites", several of which are located in Rockland County, NY (FEIS, page 3-36), FAA does not disclose or assess aircraft noise impacts on parks that are associated with the proposed action in units other than DNL. Nearly a third of the land area of Rockland County is reserved for outdoor recreation and related uses in public parks.

In the two decades since passage of Public Law 100-91 (the National Park Overflights Act of 1987), FAA has been extensively involved with the U.S. Department of Interior National Park Service and the U.S. Department of Agriculture Forest Service in evaluating aircraft noise impacts in park and wilderness settings. FAA is well aware of the inappropriateness of DNL as a predictor of aircraft noise impacts in such non-residential circumstances. The FAA NEPA procedures even state that "The FAA will consider use of appropriate supplemental noise analysis in consultation with officials having jurisdiction for national parks, national wildlife refuges and historic sites including traditional cultural properties where a quiet setting is a generally recognized purpose . . . ." Part 1050 at A- 65 (sec. 14. 8).

Indeed, the FAA has issued special federal aviation regulations for aircraft operations in airspace overlying parks that have been based on evaluations of noise impacts in terms of noise metrics such as the percent of time aircraft noise is audible to park visitors; has modified its primary noise modeling software (INM) to conduct audibility calculations; and has routinely assessed noise impacts other than residential annoyance (*e.g.*, speech interference), and identified alternative units, including Peak Sound Exposure Level (SEL), Time Above (A), Maximum A-Weighted Sound Level (L_{max}) in its Section 4(f) Evaluations (*cf.* FAA's "Section 4(f) Evaluation for Minneapolis-St. Paul International Airport, May, 1998.) Here, the FAA has refused to heed its own policies and procedures where its preferred alternative would very likely have a significant impact on such resources.

The FEIS arbitrarily excludes consideration of potential noise impact mitigation measures

Appendix P of the FEIS indicates that "the FAA considered [noise mitigation] measures in all areas, not just those areas that experienced a significant impact or a slight to moderate threshold-based noise change as reported in the DEIS." It further asserts that "Consideration was given to measures that would affect areas of noise increase that did not receive a significant or slight to moderate noise increase."

Nonetheless, it is readily apparent that the initial screening and evaluation methods used to identify potential mitigation measures were narrowly focused on heading and altitude changes for approaches and departures in proximity to individual runway ends at various airports. The text of Appendix P even states that "the effects of individual mitigation procedures are largely localized and related to specific airports." Appendix P contains scant evidence that an evaluation

was even attempted of the overall efficacy of region-wide combinations of potential measures to reduce noise exposure in areas remote from runway ends. Table 1 of Appendix P, for example, reveals no evidence that any measures were considered to mitigate overflight noise in parks in Rockland County, NY.

The text of the Appendix also indicates that some potential mitigation measures were rejected following operational evaluations described in Appendix O. The evaluations of Appendix O were conditioned on piecemeal, one constraint-at-a-time analyses. These analyses ignored the possibility of optimizing overall airspace capacity by insisting on preserving all aspects of the current operating environments at existing airports.

Thus, the FAA rejected potential mitigation options for air traffic flows during busy time periods at certain airports as infeasible on the grounds of localized interference with routine operations at other airports. A truly systems-based approach was never attempted, in which, for example, busy period flow constraints on operations at a small airport might enable adoption of procedures that could mitigate noise impacts of heavy air traffic flows on large populations in an area remote from a small airport. Such measures are familiar and widely accepted practice in highway traffic control, where timing cycles of traffic lights at intersections of large and small roads are adjusted to maximize area-wide traffic flows, and access from local entrance ramps to arterial highways are routinely metered in order to accommodate higher flow rates on larger roads.

For example, it is noted on page 5 of Appendix O that "the most important constraining factor on the JFK flow from the Northeast is the position of Long Island MacArthur Airport (ISP) which, for safety reasons, requires aircraft flows to other airports to remain outside of a circle at least three miles in radius." JFK is a major portal for heavy flows of air traffic on international and transcontinental routes. ISP is a small airport serving relatively small numbers of short haul flights. Failure to consider short-term constraints on operations at ISP in order to permit mitigation of noise impacts created by air traffic flow approaching JFK from the northeast is an unreasonable basis for selecting noise mitigation measures for further evaluation. Such failures to consider system-wide consequences of modifying combinations of local air traffic control practices also call into question how thoroughly the purpose and need of the proposed action were served by FAA's one-constraint-at-a-time approach to optimizing region-wide airspace redesign.

The FEIS over-interprets results of its noise modeling

All of the aircraft noise exposure estimates in the FEIS that have been computed by NIRS are the product of prospective modeling, based on estimate and assumption. Early in the airspace redesign effort, FAA and its contractors made very detailed predictions about numbers of various types of aircraft that would be flying on thousands of flight paths under IFR conditions at various times of day to and from the many runways of nearly two dozen airports, large and small, throughout the study area, five and ten years hence. FAA then carried out computations of expected noise exposure to the nearest millionth of a decibel, when the underlying precision of its assumptions and available information about community noise impacts does not support meaningful predictions to a precision greater than plus or minus several

decibels.[k]

Although there are no facts about the future, the gestation period of the EIS has been so protracted that the future has come and gone for one of the predicted time periods (2006). The FEIS errs not only by treating noise exposure estimates that are the results of assumption piled upon assumption as the product of precise engineering calculations, but also by failing to compare projections based on assumptions made long ago with actual flight path use statistics for 2006.

Further, certain of the noise modeling assumptions made years ago have been overtaken by events. The announcement by the Port Authority of New York and New Jersey, the new operator of Stewart International Airport, for example, that it intends to encourage development and use of its airport for increased commercial operations, raises legitimate concerns about cumulative increases in noise impacts in nearby airspace in Rockland County, NY. Section 1.4.1 of Appendix Q of the FEIS seeks to dismiss such concerns, on the grounds that Stewart Airport is 50 air miles from LGA, and hence isolated "from the biggest changes to the airspace in the Preferred Alternative." This observation, which focuses on the effects of future development at Stewart on the adequacy of FAA's airspace redesign efforts, has nothing to do with FAA's duty to disclose and evaluate noise impacts in Rockland County of growth in air traffic due to circumstances that were not anticipated when the original noise modeling assumptions were made.

Even if the details of the outdated noise modeling assumptions of the FEIS were to be accepted at face value, the FEIS still errs in failing to inform readers of the unreliability of DNL-based noise impact predictions at low exposure levels. According to FICON, "For a variety of reasons, noise predictions and interpretations are frequently less reliable below DNL 65 dB. DNL prediction models tend to degrade in accuracy at large distances from the airport." Some prominent reasons for this inaccuracy include the inability of FAA to make precise predictions of flight paths of aircraft other than in the immediate vicinity of airports, as well as uncertainties about power settings, aircraft configurations, and pilot technique at times when aircraft are in flight regimes other than take-off and landing.

FICON concludes that "Therefore, predictions of noise exposure and impacts below DNL 65 dB should take the possibility of such inaccuracy into account." Most of the DNL values due to aircraft noise that the FEIS predicts for Rockland County are at least two orders of magnitude lower than 65 dB. The FEIS fails to inform readers of the inherent imprecision of its noise exposure predictions in Rockland County and elsewhere.

Conclusion

In short, the FEIS is defective (1) in its reliance on outdated noise impact prediction methods; (2) in its failures to supplement FICON's DNL-based noise impact prediction methods (known from the agency's prior experience to have under-estimated community response in the

[k] Fidell, S., and Schomer, P. (2007). "Uncertainties in measuring aircraft noise exposure and predicting community response to it", Noise Control Eng. J. Vol. 55(1).

study area), and to disclose, consider and evaluate non-residential noise impacts; (3) in its failure to adopt a top-down, system-wide approach to screening noise mitigation measures (resulting in the arbitrary exclusion from detailed consideration of potentially useful combinations of air traffic control and noise mitigation measures at multiple airports); (4) in its failure to update noise modeling assumptions that had been overtaken by events during the lengthy course of the airspace redesign effort; and (5) in failing to inform readers of the unreliability of noise exposure estimates at low exposure levels.

IMPACT OF AIRCRAFT NOISE OVER ROCKLAND COUNTY, NEW YORK

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IMPACT OF AIRCRAFT NOISE OVER ROCKLAND COUNTY, NEW YORK

Introduction

My name is Dr. Theodore Lane, and I have a PhD in economics. I am a Principal in Thomas/Lane & Associates (TLA), economic & public policy consultants. During the past 20 years assignments I have had include studying the socio-economic impact of aircraft noise on communities surrounding SeaTac International Airport, analyzing the feasibility of developing commercial/industrial parks at general aviation airports in Washington State, identifying the socio-economic consequences of expanding Logan International Airport in Boston, MA, studying the economic feasibility of commercial tilt rotor aircraft in the Chicago region and the Caribbean region, analyzing the potential for developing multi-modal facilities at Montana's commercial airports, and being an expert witness for a consortium of commercial airlines challenging their taxation under the real personal property laws of the states of Washington and Oregon. Clients have included the FAA, the aviation divisions of state transportation agencies, local governments, economic development authorities and port districts. A one page resume is attached at the end of this report. A full resume and a statement of TLA qualifications are available on request.

Background

Rockland County is located 12 miles north-northwest of New York City. It is part of the New York-Northern New Jersey-Long Island-, NY-NJ-PA Metropolitan Area.

The U.S. Census estimated Rockland County's 2006 population as 294,965 persons – an increase of 2.9 percent since the 2000 Decennial Census[i]. Its population in 2005 was 80.2 percent white, of which 69.2 percent were white not Hispanic. Black persons made up 11.9 percent of the 2005 population.

The home ownership rate reported in 2000 by the U.S. Census was 71.2 percent, and the percentage of persons five years old and older who lived in the same house in 1995 and 2000 was 64.5 percent[ii]. The median value of owner-occupied housing in 2000 reported in the Census was $242,500, compared with $148,700 for the entire State of New York.

Rockland County's population is well educated: 85.3 percent were high school graduates and 37.5 percent had a bachelor's degree or higher in 2000.

According to the 2000 Census, among persons 16 years of age or older living in Rockland County, 65.5 percent were in the labor force and 63.0 percent were employed (the

unemployment rate was 2.4 percent). The Census reported 44.2 percent of employed persons were in management, professional and related occupations, while 39.2 percent were attached to professional, scientific, management, administrative, educational, health or social service industries.

Median household income in 2000 was $75,306 and median family income was $78,806. There were 36.2 percent of families with annual incomes in excess of $100,000.

Overall, Rockland County is an upper income, upper educated, single family residential area whose residents appear to be primarily employed in professional, technical and scientific activities in the New York Metropolitan region.

NY/NJ/PHL Metropolitan Area Airspace Redesign

The Federal Aviation Administration (FAA) has issued a Final Environmental Impact Statement (FEIS) for a proposed airspace redesign for the New York/New Jersey/Philadelphia Metropolitan region. The purpose of the redesign is to improve the efficiency of air traffic control in the region, thereby curbing some of delays now being experience by travelers using regional airports. As a result of the redesign, 300 to 400 additional flights arriving at Newark Liberty International Airport are expected to travel over Rockland County. These flights would enter the County's airspace from the north at 8,000 to 10,000 feet, descend to a level of 5,000 to 6,000 feet and exit the County to the south.

The FAA identified an area in the south central part of Rockland County where aircraft heading for Newark Liberty International will pass over at low elevations causing noise increases of 5.0 DNL or more.[iii] The Noise Exposure Tables contained in the FEIS identify 152 Census Blocks in seven Census Tracts containing 16,138 persons where aircraft noise levels will increase on average by 7.0 DNL[iv]. The absolute aircraft noise levels in these Census Tracts and Blocks will remain modest – in the range of 40 to 45 DNL. However, it is generally accepted that an increase in noise of 7.0-10.0 DNL is perceived by impacted persons as a doubling of the noise level. The noise generated by aircraft passing over the communities in south central Rockland County will be perceived therefore as being twice as high as it would be without the proposed airspace redesign.

Noise Impacts of the NY/NJ/PHL Metropolitan Area Airspace Redesign

Noise impacts are usually considered the primary impact generated by air transportation. This is not because noise is the only impact generated by air transportation activity but rather because noise is a marker for a range of socio-economic impacts. Higher noise levels are associated with a downward shift in land values which then cause changes in land use

patterns. These in turn produce adverse changes in both local economic activity and the characteristic of the impacted resident population. The fiscal consequence of these changes is that community service requirements rise at the same time as the revenues of local governments are depressed below what they otherwise would be.

In Rockland County, the significantly impacted Census Blocks and Tracts will still experience absolutely moderate aircraft noise levels but local residents will perceive that aircraft noise has doubled over what it otherwise would have been. This will lead to a decline in relative property values. In the short run most analysts expect housing market values in the NY/NJ/PHA Metropolitan area will be stable or decline somewhat. In this type of downward market properties falling under the "noise shadow" of the new approach routes to Newark Liberty International airport will be more difficult to sell, remain on the market longer and be particularly vulnerable to downward market pressures. In the long run, absolute property values will likely rise but at a rate of increase measurably less than properties not adversely impacted by the airspace redesign. That is, they will suffer significant relative losses of value even though their absolute values continue to rise.

A concern with such relative changes in areas with moderate absolute noise levels has been experience elsewhere. The City of Mercer Island, Washington, is a case in point. Mercer Island has most of the economic, social and demographic characteristics that exist in Rockland County: it is an upper income, upper educated, single family residential area whose residents are primarily employed in professional, technical and scientific activities in a surrounding metropolitan region. The air traffic control pattern of Seattle Tacoma International Airport (SeaTac) routed aircraft over Mercer Island at altitudes of about 5,000 feet. Mercer Island residents felt the relative noise impacts they experienced compared to adjacent upper income, upper educated, single family residential communities were so serious that they petitioned the FAA to change the air traffic control patterns to route aircraft away from their City. The FAA recognized Mercer Island's concerns and several years ago changed SeaTac's air traffic control patterns to give Mercer Island relief. Yet, in the case of Rockland County, these types of concerns with relative noise impacts were completely ignored in the FEIS.

Ignoring relative noise impacts is particularly egregious in the case of Rockland County because of the likelihood that the aircraft activity forecast contained in the NY/NJ/PHA Airspace Redesign FEIS underestimates the actual impacts that will occur for two reasons. First, air transportation corridors are like other transportation corridor – they tend experience feedback, i.e., when additional capacity is added, additional traffic is attracted. Obviously this doesn't happen everywhere and adding capacity to a low used air corridor will not attract additional aircraft any more than adding additional freeway lanes will cause more

automobile traffic in a low population/employment density, low vehicle usage rural area. But in a crowded, high density, high usage area such as the NY/NJ/PHA Metropolitan area, additional capacity will almost certainly produce feedback effects and cause corridor use patterns to increase. The way in which air traffic will increase as a result of the additional air corridor capacity created by the Airspace Redesign is unknown and hence its impact on noise levels in Rockland County's impacted areas cannot be gauged from the data available in the FEIS. It could involve changes in the fleet mix and well as changes in the frequency of aircraft over flights. But there will be changes, there will be feedback, and there is no recognition of such changes in the FEIS.

The second problem with the aircraft activity forecast contained in the FEIS is that it gives no recognition to the potential development of additional major regional airports once additional airspace capacity has been added to the region. Several airports in the region (most notably Stewart and Teterboro) could originate/expand scheduled commercial air service with the addition of regional airspace capacity. Airport expansion plans since the initiation of the EIS process over five years ago appear not to have been included in the FEIS. At a minimum, such expansion plans should be identified and analyzed for their nise impact implications.

Other Impacts of the NY/NJ/PHL Metropolitan Area Airspace Redesign

It is widely recognized that airport approach and departure corridors generate a range of socio-economic impacts.[v] These include, but are not limited to:

- Blighting of residential sites which leads to conversion from home ownership properties to rental properties and decreases in per square foot land values.
- Downscaling of the socio-economic characteristics of both businesses and population in the impacted areas.
- Increases in the cost of delivering community services such as public safety, schools, nuisance abatement, parks and community centers necessary to maintain a constant quality of life in the impacted areas.

In addition, several studies have found evidence supporting the significant adverse impact of airplane noise on the ability of school children to learn. A study conducted by the Highline School District at a junior high school located under SeaTac International Airport's approach/departure flight path compared the math test scores of students in classrooms that were and were not insulated to attenuate aircraft noise. Test scores on average were 25 percent lower in the non-insulated classrooms.[vi] A study published this year by the Federal Interagency Committee on Aviation Noise (FICAN) found that there was some interesting,

but not conclusive, evidence that learning by school children might be impaired by noise levels as low as 40-45 DNL.

The Beth Rochel school for girls is located in Census Block 2012, Census Tract 121.04, which is one of the noise impact areas in Rockland County the FAA identified. Yet the NY/NJ/PHA Airspace Redesign FEIS contains no analysis (or even reference) to potential school impacts in Rockland County.

Finally, if residents living in the impacted areas perceive a doubling of the noise generated by aircraft approaching Newark International Airport they will experience a disruption of normal family functioning. Parents and children will find themselves reluctant to participate in normal outdoor activities such as playing games or sports, enjoying park lands or having outdoor barbecues. Although there is no straight forward way to quantify the adverse psychological impacts such as stress that result from the disruption of normal family functioning, it is probable that they will occur and they warrant acknowledgement, at a minimum, within the structure of the FEIS.

Conclusion

Airport approach and departure corridors generate a range of socio-economic impacts that are induced by aircraft noise. In the case of Rockland County, NY, an estimated 16,138 persons living in the south central part of the County will experience an increase in aircraft noise of about 7 DNL and will perceive that aircraft noise over their homes has roughly doubled.

Although absolute aircraft noise levels will be moderate, relative aircraft noise levels will increase significantly. The fact that relative noise levels are important is evidenced by the FAA's willingness to alter approach/departure flight tracks associated with SeaTac International Airport to reduce them in the City of Mercer Island – a community with most of the same noise, socio-economic and demographic characteristics found in Rockland County.

Further, there is reason to believe that the NY/NJ/PHA Airspace Redesign FEIS underestimates the actual noise impacts that will occur for two reasons:

- in a crowded, high density, high usage area such as the NY/NJ/PHA Metropolitan area, additional capacity will almost certainly produce feedback effects and cause corridor use patterns to increase, and

- the aircraft activity forecast contained in the FEIS is that it gives no recognition to the potential development of additional major regional airports once additional airspace capacity has been added to the region.

In addition to direct noise impacts, such noise-induced impacts as the blighting of residential areas, the downscaling of the socio-economic characteristics of impacted businesses and population, increasing the cost of delivering community services necessary to maintain a constant quality of life in the impacted areas, and protecting the ability of school children to learn are all omitted in the FEIS. This is particularly egregious since FAA Advisory Circulars specifically direct airport authorities to address such issues.

Noise Exposure Table

State	County	Census Tract ID	Census Block ID	Population (2000)	Integrated Variation with ICC with Mitigation LDN level	Integrated Variation with ICC with Mitigation LDN change 2006-2011
New York	Rockland	101.01	2001	26	31.8	6.8
New York	Rockland	101.01	2002	163	31.8	6.7
New York	Rockland	101.01	2003	19	31.5	7.2
New York	Rockland	101.01	2004	11	31.6	7.4
New York	Rockland	101.01	2006	12	31.7	7.1
New York	Rockland	101.01	2007	72	31.9	6.8
New York	Rockland	101.01	2034	4	31.6	6.9
New York	Rockland	116.02	3009	7	39.8	6.6
New York	Rockland	116.02	3010	131	40.0	6.8
New York	Rockland	116.02	3011	8	39.9	6.7
New York	Rockland	116.02	3015	37	39.6	6.5
New York	Rockland	116.02	3016	57	39.6	6.5
New York	Rockland	116.02	3017	24	39.8	6.7
New York	Rockland	121.01	1018	54	40.7	6.5
New York	Rockland	121.01	2000	90	40.6	6.6
New York	Rockland	121.01	2001	295	40.7	6.6
New York	Rockland	121.01	2002	80	40.6	6.7
New York	Rockland	121.01	2003	55	40.7	6.8
New York	Rockland	121.01	2004	44	40.6	6.8
New York	Rockland	121.01	2005	13	40.6	6.7
New York	Rockland	121.01	2006	32	40.5	6.5
New York	Rockland	121.01	2007	50	40.4	6.6
New York	Rockland	121.01	2008	116	40.6	6.8
New York	Rockland	121.01	2009	80	40.6	6.8
New York	Rockland	121.01	2010	32	40.6	6.8
New York	Rockland	121.01	2011	139	40.6	6.9
New York	Rockland	121.01	2012	194	40.5	6.8
New York	Rockland	121.01	2013	86	40.4	6.8
New York	Rockland	121.01	2014	228	40.5	7.0
New York	Rockland	121.01	2015	227	40.3	6.9
New York	Rockland	121.01	2016	162	40.0	6.7
New York	Rockland	121.03	1006	46	40.6	6.6
New York	Rockland	121.03	1007	43	40.6	6.6
New York	Rockland	121.03	1008	103	40.5	6.6
New York	Rockland	121.03	1009	418	40.3	6.5
New York	Rockland	121.03	1010	286	40.4	6.5
New York	Rockland	121.03	1016	45	40.2	6.4
New York	Rockland	121.03	1017	72	40.3	6.5
New York	Rockland	121.03	1018	164	40.3	6.5

State	County	Census Tract ID	Census Block ID	Population (2000)	Integrated Variation with ICC with Mitigation LDN level	Integrated Variation with ICC with Mitigation LDN change 2006-2011
New York	Rockland	121.03	1019	299	40.6	6.8
New York	Rockland	121.03	1021	62	40.5	6.7
New York	Rockland	121.03	1022	132	40.5	6.7
New York	Rockland	121.03	1023	129	40.5	6.6
New York	Rockland	121.03	1024	107	40.6	6.8
New York	Rockland	121.03	1025	129	40.5	6.7
New York	Rockland	121.03	1026	160	40.4	6.6
New York	Rockland	121.03	1027	21	40.4	6.5
New York	Rockland	121.03	1028	37	40.4	6.6
New York	Rockland	121.03	1029	47	40.5	6.6
New York	Rockland	121.03	2000	108	40.5	6.6
New York	Rockland	121.03	2002	126	40.5	6.6
New York	Rockland	121.03	2003	294	40.6	6.8
New York	Rockland	121.03	2005	72	40.4	6.5
New York	Rockland	121.03	2006	103	40.5	6.6
New York	Rockland	121.03	2007	123	40.5	6.6
New York	Rockland	121.03	2008	519	40.6	6.9
New York	Rockland	121.03	2009	103	40.6	6.9
New York	Rockland	121.03	2010	171	40.7	7.0
New York	Rockland	121.03	2011	169	40.6	6.7
New York	Rockland	121.03	2012	2	40.7	6.8
New York	Rockland	121.03	2013	31	40.7	6.7
New York	Rockland	121.03	2014	19	40.6	6.6
New York	Rockland	121.03	2015	89	40.6	6.6
New York	Rockland	121.03	2016	84	40.5	6.5
New York	Rockland	121.03	2017	13	40.6	6.5
New York	Rockland	121.03	2019	42	40.6	6.9
New York	Rockland	121.04	2006	36	39.6	6.6
New York	Rockland	121.04	2007	21	39.7	6.7
New York	Rockland	121.04	2008	112	40.0	6.8
New York	Rockland	121.04	2012	630	40.5	6.5
New York	Rockland	121.04	2013	60	40.6	6.6
New York	Rockland	121.04	2014	241	40.5	6.6
New York	Rockland	121.04	2015	149	40.6	6.8
New York	Rockland	121.04	2017	87	40.7	6.7
New York	Rockland	121.04	2018	141	40.7	6.7
New York	Rockland	121.04	2019	289	40.7	7.0
New York	Rockland	121.04	2021	61	40.6	7.0
New York	Rockland	121.04	2022	97	40.6	7.1
New York	Rockland	121.04	2023	51	40.4	7.0
New York	Rockland	124	3003	141	39.7	6.6

State	County	Census Tract ID	Census Block ID	Population (2000)	Integrated Variation with ICC with Mitigation LDN level	Integrated Variation with ICC with Mitigation LDN change 2006-2011
New York	Rockland	124	3004	185	40.2	6.7
New York	Rockland	125.01	1000	11	40.0	6.8
New York	Rockland	125.01	1001	182	40.1	6.7
New York	Rockland	125.01	1013	3	40.0	6.6
New York	Rockland	125.01	2006	125	40.0	6.8
New York	Rockland	125.01	2007	21	39.8	6.7
New York	Rockland	125.01	2008	46	40.3	7.0
New York	Rockland	125.01	2009	286	40.2	6.9
New York	Rockland	125.01	2010	37	40.5	7.0
New York	Rockland	125.01	2011	91	40.4	7.0
New York	Rockland	125.01	2012	92	40.6	7.0
New York	Rockland	125.01	2013	263	40.7	6.9
New York	Rockland	125.01	2014	91	40.7	6.9
New York	Rockland	125.01	2015	232	40.8	7.2
New York	Rockland	125.01	2016	246	40.7	7.1
New York	Rockland	125.01	2017	24	40.6	7.0
New York	Rockland	125.01	2018	47	40.5	7.0
New York	Rockland	125.01	2019	262	40.3	6.9
New York	Rockland	125.01	2020	88	40.3	6.8
New York	Rockland	125.01	2021	52	40.5	7.1
New York	Rockland	125.01	2022	22	40.4	7.1
New York	Rockland	125.01	3000	177	40.7	7.0
New York	Rockland	125.01	3001	3	40.7	6.8
New York	Rockland	125.01	3002	25	40.7	7.0
New York	Rockland	125.01	3003	203	40.8	7.3
New York	Rockland	125.01	3004	76	40.7	7.3
New York	Rockland	125.01	3005	58	40.8	7.4
New York	Rockland	125.01	3006	94	40.7	7.5
New York	Rockland	125.01	3007	630	40.8	7.9
New York	Rockland	125.01	3008	83	40.5	7.3
New York	Rockland	125.01	3009	82	40.8	7.8
New York	Rockland	125.01	3010	28	40.5	7.0
New York	Rockland	125.01	4000	74	40.9	7.8
New York	Rockland	125.01	4002	39	40.8	7.8
New York	Rockland	125.01	4003	27	40.8	7.8
New York	Rockland	125.01	4004	55	40.7	7.7
New York	Rockland	125.01	4005	110	40.3	7.1
New York	Rockland	125.01	4006	61	40.2	6.9
New York	Rockland	125.01	4007	85	40.3	7.0
New York	Rockland	125.01	4008	32	40.6	7.4
New York	Rockland	125.01	4009	27	40.8	7.7

State	County	Census Tract ID	Census Block ID	Population (2000)	Integrated Variation with ICC with Mitigation LDN level	Integrated Variation with ICC with Mitigation LDN change 2006-2011
New York	Rockland	125.01	4010	112	40.8	7.6
New York	Rockland	125.01	4011	10	40.7	7.5
New York	Rockland	125.01	4012	22	40.8	7.6
New York	Rockland	125.01	4013	31	40.9	7.7
New York	Rockland	125.02	1006	561	40.4	7.3
New York	Rockland	125.02	1007	66	40.5	7.5
New York	Rockland	125.02	1008	175	40.6	7.5
New York	Rockland	125.02	1009	50	40.7	7.7
New York	Rockland	125.02	1010	67	40.6	7.6
New York	Rockland	125.02	1011	75	40.1	6.9
New York	Rockland	125.02	1013	30	40.1	6.6
New York	Rockland	125.02	1014	27	40.3	6.9
New York	Rockland	125.02	3000	225	40.8	7.5
New York	Rockland	125.02	3001	101	41.0	7.7
New York	Rockland	125.02	3002	147	41.1	7.6
New York	Rockland	125.02	3003	34	41.1	7.7
New York	Rockland	125.02	3004	24	41.2	7.8
New York	Rockland	125.02	3005	50	41.1	7.7
New York	Rockland	125.02	3006	44	41.0	7.7
New York	Rockland	125.02	3007	177	41.1	7.7
New York	Rockland	125.02	3008	32	41.1	7.6
New York	Rockland	125.02	3009	40	41.1	7.6
New York	Rockland	125.02	3010	20	41.0	7.4
New York	Rockland	125.02	3011	107	40.8	7.1
New York	Rockland	125.02	4006	135	40.5	6.7
New York	Rockland	125.02	4007	63	40.5	6.8
New York	Rockland	125.02	4008	99	40.7	6.9
New York	Rockland	125.02	4009	2	41.1	7.5
New York	Rockland	126	4009	50	40.9	7.1
New York	Rockland	126	4010	117	40.6	6.7
New York	Rockland	126	4011	38	40.4	6.5
			Total	16,138	Average	7.0

Source: "Noise Exposure Tables, "2011 Integrated Airspace Alternative Variation with ICC Change in Noise Exposure: Figure ES .5, *NY/NJ/PHA Metropolitan Airspace redesign, FEIS. C*hanges in noise levels calculated by TLA

END NOTES

[i] U.S. Bureau of the Census, *State & County Quick Facts*

[ii] U.S. Bureau of the Census, *Census 2000*

[iii] FAA, "2011 Integrated Airspace Alternative Variation with ICC Change in Noise Exposure: Figure ES .5, *NY/NJ/PHA Metropolitan Airspace redesign, FEIS*

[iv] Noise level estimates contained in "Noise Exposure Tables," 2011 Integrated Airspace Alternative Variation with ICC Change in Noise Exposure: Figure ES .5, *NY/NJ/PHA Metropolitan Airspace redesign, FEIS. C*hanges in noise levels calculated by TLA

[v] FAA Advisory Circular AC 150/5020-1, *Noise Control & Compatibility Planning for Airports* states "many [environmental assessments] contain analyses of airport noise, compatible land use, social impacts and induced socioeconomic impacts" (pg 6). Section 6, Analysis of Costs and Benefits and Selection of an Alternative, states "Evaluation of the social costs and benefits of alternatives is of equal importance with those of economics and the environment" (pg 42).

[vi] Highline Public School District, *Aircraft Noise Study: Remedial Construction/Schools*.

THEODORE LANE, Ph.D.

Employment History

Principal, Thomas/Lane & Associates, San Juan, Puerto Rico and Seattle, Washington, l986 to present

Consultant to Director, Office of Economic Research, The Economic Development Administration of Puerto Rico, San Juan, Puerto Rico, 1984-1985

Professor, Economics, University of Alaska, Institute of Social and Economic Research, Anchorage, Alaska, 1981-1984

Partner, Lane/Langley & Associates, Economic Consultants, Seattle, Washington, 1979-1981

Senior Economist/Policy Analyst, The White House Conference on Balanced National Growth and Economic Development, Washington, DC, 1978

President, Human Resources Planning Institute, Inc. Seattle, Washington, 1969-1977

Vice-President, Consulting Services Corporation, Seattle, Washington, 1967-1968

Assistant Professor, Economics, University of Wisconsin, Milwaukee, Wisconsin, 1967-1968

Education

Ph.D., Economics, University of Washington

MA, Economics, University of Illinois

BA, Economics, Temple University

Awards and Honors

Board of Directors, Western Regional Science Association

President, Western Regional Science Association

Trustee, Pacific Regional Science Coordinating Organization

Who's Who in America: *Finance & Industry*

Professional Affiliations

The American Economic Association

Pacific Regional Science Coordinating Organization

Western Regional Science Association

Representative Assignments

- Project Director for a two-year assignment from the Puerto Rico Economic Development Company/Economic Development Administration, funded by the FAA, to determine the economic and commercial feasibility of civil Tiltrotor aircraft for moving passengers and cargo between Puerto Rico and the island nations of the Caribbean.
- Directed creation of a vector auto-regressive econometric model to simulate 20 years of operations and enplanments at San Juan International Airport and Mayaguez International Airport, and use of the model to forecast future activity levels. Assignment from the San Juan Ports Authority, as part of the airport's Master Plan Update.
- Worked with an advisory committee of stakeholders, city/county staff and city/county elected officials to create an economic development action plan for the Winlock-Toledo Airport in SW

Lewis County, Washington; including the facilitation of open, public meetings every two weeks over a six months period, providing the stakeholder committee with technical and research support, and producing an airport economic development action plan.

- Directed 22 economic inventories/benefit studies of airports in Washington State for the AD/WSDOT. These studies included an assessment of local market conditions and the identification of activities at and around each airport, including services/products provided and jobs created.
- Under assignment with AD/WSDOT, Dr. Lane assisted in the creation of strategic economic development plans for airports in Westport, Port Townsend, Ellensburg, Chelan and Ephrata. This work included assessing local market conditions, identifying opportunities and potentials, and recommending action plans for commercial/industrial activity and future airport developments.
- Managed a two-year EDA funded analysis of how FAA sponsored airport planning and EDA sponsored economic development planning can be integrated to use rural general aviation airports as the locus of local community based economic development. Upon completion of this assignment, wrote an Washington State's *Economic Development-Airport Planning Manual*.
- Directed studies of airport economic benefits at Kittitas County Airport (Bowers Field) and Arlington Municipal Airport as part of Washington State's Continuous Aviation System Plan.
- Consultant to the five cities to assess the socio-economic impacts of the proposed third runway at Seattle-Tacoma International Airport and recommend warranted mitigation policies. Assignment assumed airport benefits were greater than costs and investigated equity disparities in the distribution of beneficial impacts over the entire region compared with adverse impact localized in communities surrounding the airport.

FAA FLIGHT PATTERN REDESIGN PROJECT

Preliminary Real Property Impact Analysis
on
Tax Assessments & Tax Rates in Rockland County

Prepared For

Holland & Knight LLP
on behalf of Rockland County, NY

August 31, 2007

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Real estate values are affected by a host of factors. The appraisal literature recognizes many locational attributes that influence value. The locational attributes of real estate are highly significant, since, by definition real estate is immobile so that to a large extent it is unable to be insulated from that which happens in its surrounding environment.[1]

We have been asked to estimate whether a change in certain flight patterns with respect to take-off and more particularly landing at Newark Airport can be reasonably expected to affect the value of real property, both vacant and improved, by reason of their general location within the flight path of two runways at Newark Airport, as more fully described at the "NY-NJ-PHL Metropolitan Area Airspace Redesign" Rockland County Town Hall meeting on July 30, 3007; "NY-NJ-PHL Metropolitan Area Airspace Redesign" dated July 2007; and other underlying documents and studies made by the Federal Aviation Administration (FAA). Several variations with respect to the flight patterns have been provided which have been described by the FAA as "Preferred Alternative" "Prior to Mitigation" and "After Mitigation". It is our understanding that under both scenarios the number and direction of flight patterns will remain the same insofar as they affect Rockland County. However, we understand that "after mitigation" flight patterns will be at a higher altitude in order to ameliorate the degree of noise exposure at ground level.

[1] The Appraisal of Real Estate, 12th Edition, Pgs. 42 – 47; 168-177

The appraisal literature is replete with studies both employing hedonic models and surveys of market participants wherein it has uniformly been concluded that airplane noise level negatively impacts the value of real property, particularly residential real property.[2] Most of these studies deal with noise impact on real estate values of properties that are generally in the immediate vicinity of an airport and thereby suffer huge impacts from high volumes of noise, typically in a range greater than 65 DNL. We understand that a report by Dr. Sanford Fidell to be submitted at the same time as this report criticizes the use of DNL methodology employed by the FAA. However, we will not discuss that critique as it is beyond our area of expertise as real estate appraisers, consultants and real property tax consultants. Rather, our analysis uses the FAA's DNL data from the FEIS.

We shall first address prospective impacts with respect to the preferred alternative prior to mitigation. The tables provided in the FAA study indicate that there is an area in southern Rockland County, particularly centered about the Village of Chestnut Ridge within the Town of Ramapo that is expected to incur an increase in the DNL of 5.0 or greater, generally an increase in the magnitude of 7 DNL. Although this decibel noise level is anticipated by certain computer models (but not on the ground noise readings) with a noise level of 45 – 60 DNL, we are informed that such an increase in DNL can be described as approximately doubling the experienced noise level in this area which the FAA considers a significant change to those experiencing the noise on the ground. This area of Rockland County consists of a bedroom community to suburban New York City and is the home of many who previously lived and often worked in New York City who seek a retreat from the noise and congestion associated with urban life. We have not had sufficient time to undertake studies of areas who experience such a dramatic increase of noise level that do not reach the 65 DNL point. However, according to the report of Dr.

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[2] Articles:

Adjusting House Prices for Intra-Neighborhood Traffic Differences, William T. Hughs, Jr. and C.F. Sirmans, SRPA, PhD, The Appraisal Journal, October 1993;

Aircraft Noise and Residential Property Values: Results of a Survey Study, Marvin Frankel, The Appraisal Journal, January 1991;

Noise, We Have Heard it Before, William F. Cantrell, Eddie D. Crook and Lewis S. Pipkin The Real Estate Appraiser and Analyst, Fall 1983;

The Impact of Airport Operations on Land Values, A Case Study of Seattle Tacoma International Airport , prepared by Theodore Lane, PhD of Thomas / Lane &Associates, May 1998

Theodore Lane of Thomas Lane and Associates, a national expert in the impact of aircraft noise and property values, the preferred alternative with mitigation will result in an average DNL increase of 7.0[3]. As appraisers and participants in the Rockland County marketplace we consider that these changes of flight pattern with a resulting increase in noise level will make properties so affected less desirable than similar competing properties not subject to this externally imposed adverse condition. Residents in our area tend to place a premium on enjoying a quiet suburban lifestyle.

Our review of the literature and our consultation with Dr. Lane support the proposition that properties affected by this externality will become less competitive in the marketplace, particularly under current market conditions which have resulted from the downturn in the general real estate market further compounded by the "crisis" in the mortgage financing. Accordingly, in order to illustrate the adverse economic impact on real property values, we consider it fair and reasonable in this effected area to hypothesize that properties will be affected so that their values will decrease between 3% and 7% without mitigation and 1% to 3% with mitigation. Our estimates though are not made to show the individual impact on individual property owners, but to show the results of the overall devaluation of these properties on the real property tax structure in the community.

A brief description of the real property tax structure in Rockland County, typical of all New York counties, will put the real property tax impact in perspective. The County of Rockland has a County Real Property Tax. Additionally, the Town of Ramapo, one of five towns within the county, as typical of all towns in New York State, also has a Real Property Tax. Within the Town of Ramapo there are two school districts: the East Ramapo CSD and the Ramapo CSD, which serve the Town of Ramapo and small portions of other areas. Each of these entities levy a sum to be raised by its real property tax. Real property tax is determined by the taxing entity estimating all their expenses and thereafter deducting all sources of income other than the real property tax. These sources

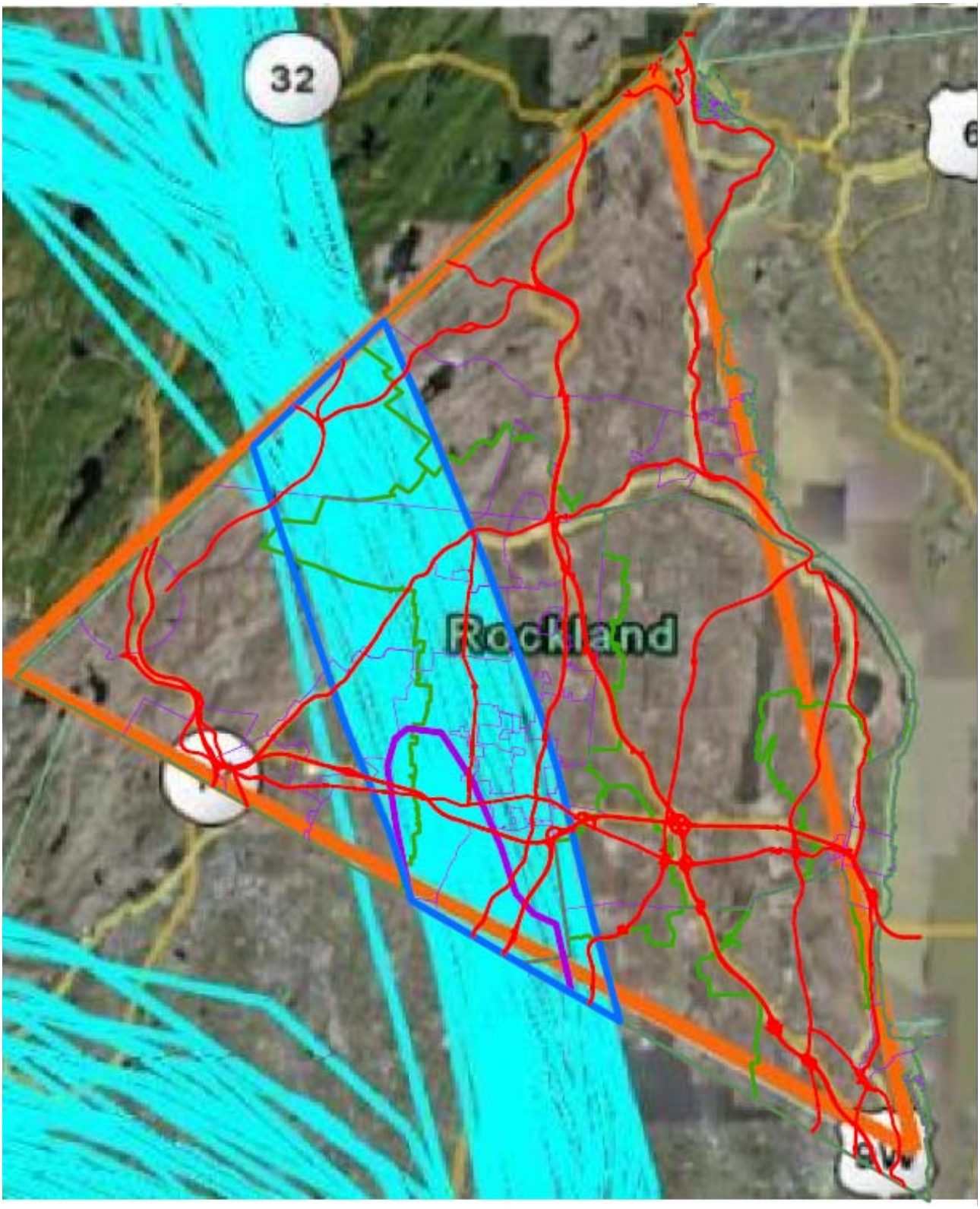
[3] Noice Level estimates contained in "Noise Exposure Tables," 2011 Integrated Airspace Alternative Variation with ICC Change in Noise Exposure: Figures ES .5, NY/NJ/PHA Metropolitan Airspace redesign, FEIS. Changes in noise levels calculated by TLA.

of income can be state aid, federal aid, revenues from municipal properties and the like. All of these anticipated revenues are deducted from the anticipated expenses and after such deductions there is always a shortfall in revenue. This shortfall is made up by the real property tax and results in the real property tax levy. The amount of the levy is divided by the assessed values of the real property within the boundaries of the taxing district which result in the calculation of the tax rate.

The tax assessment of each property is a function of its market value and each property within each taxing entity is assessed at a uniform percentage of value. All things being equal, when assessments go up as a result of values increasing the tax rate goes down, while if values and assessments decrease the tax rate will increase. However, the amount of taxes that must be collected does not change when there is a change in the values/assessments, since the amount of the levy is a function of income and expenses extraneous to the assessment and property value function. Further, if one were to assume that all property value influences were to remain the same in the Town, County and School District, except that in one portion thereof there is a reduction in property values and thereby property assessments, not only would there be an increase in the general tax rate, but there would be a shift in the taxes that are collected from the unaffected properties, since although their tax rate might have increased, their values and thereby their assessments would remain unaffected while the values and assessments of the affected areas would decrease.

We have employed geographic information system technology in order to identify the affected parcels on a tax lot by tax lot basis. In Figure 1 we depict on an overlay of the Rockland County Map the entire flight path over Rockland County and outline in purple that area of Rockland County wherein the computerized program anticipates a substantial increase of 5.0 DNL or greater over current levels.

FIGURE 1



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In Figure 2 we provide the general census tract overlay of the entire county and in Figure 3 we overlay in blue the flight path, and in yellow, the anticipated change in noise level area.

FIGURE 2

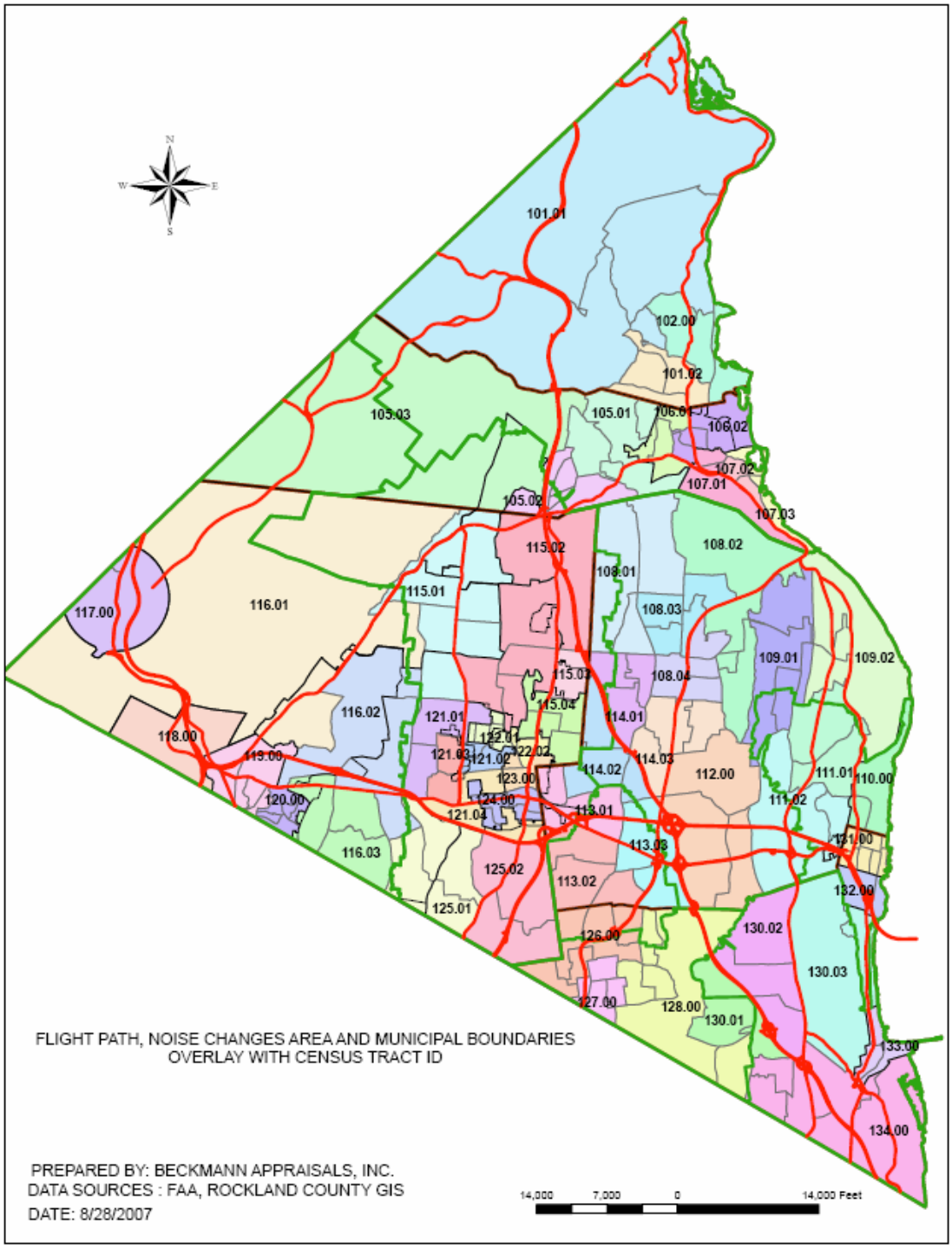

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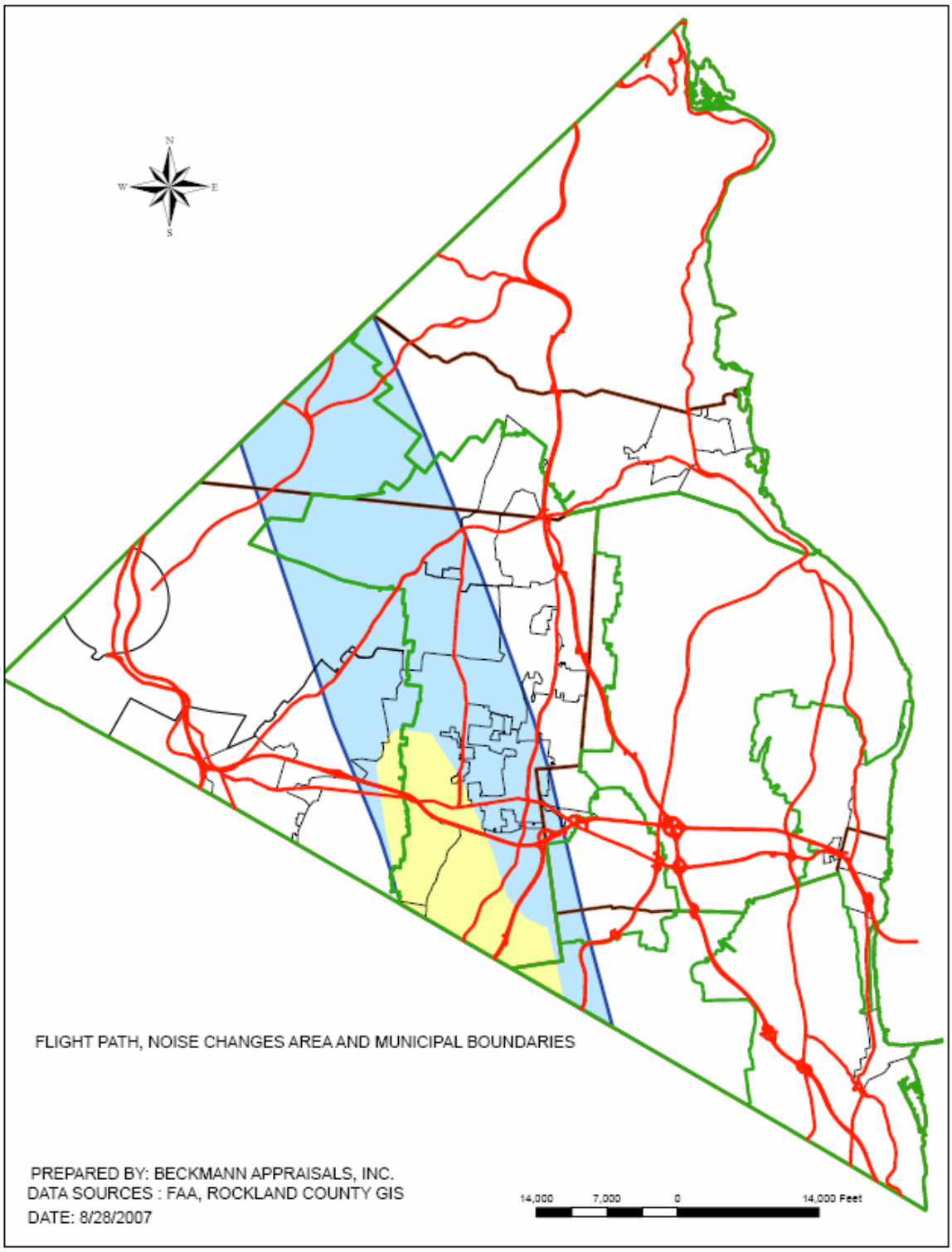
FIGURE 3



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In Figure 4 we overlay the flight path (outlined in blue) and the increased noise level area (outlined in yellow) over a parcel by parcel tax map.

FIGURE 4

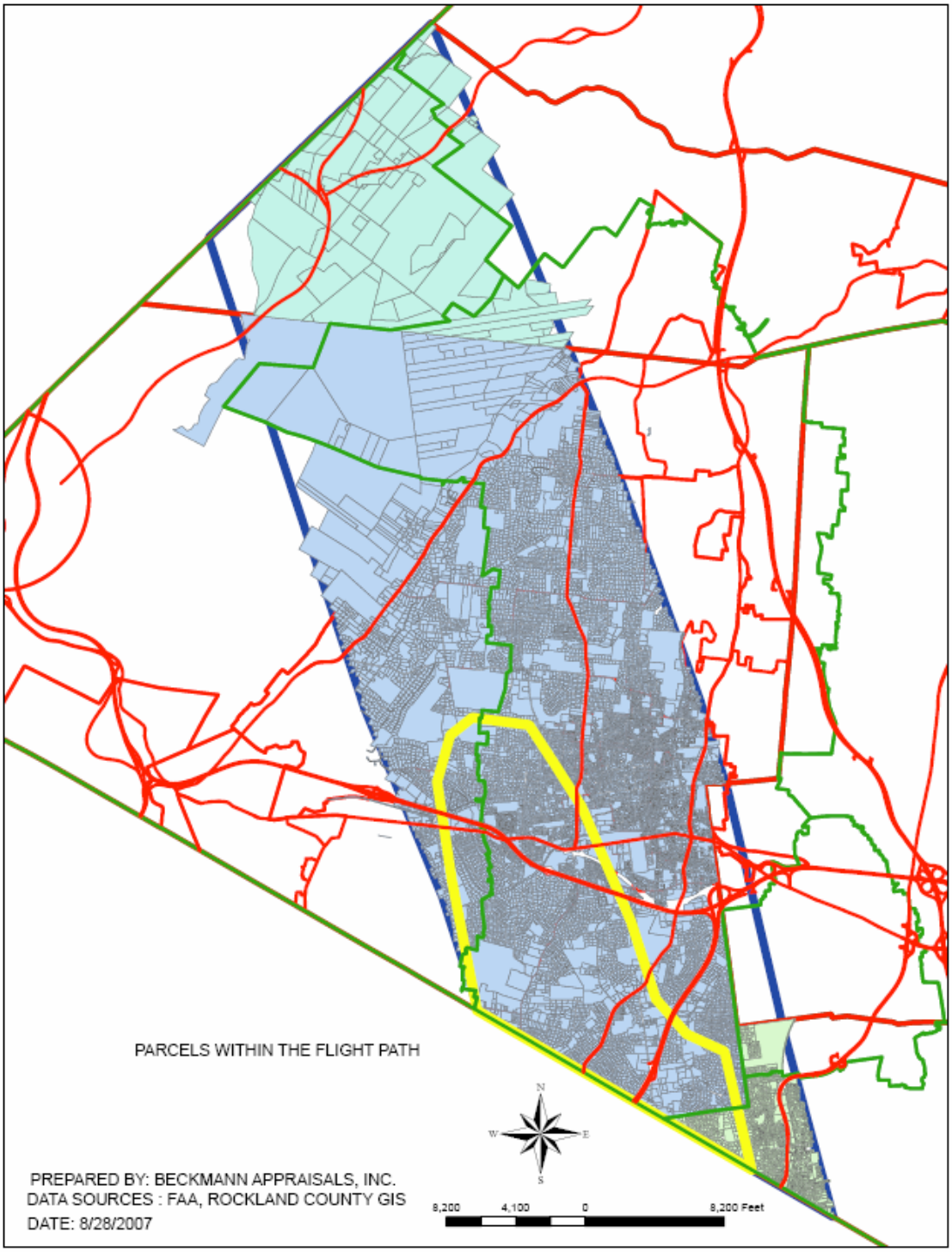

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Figure 5 overlays the increased noise level area on the parcel tax map, while Figure 6 combines both the tax parcel map and the census tract areas in the noise affected area.

FIGURE 5

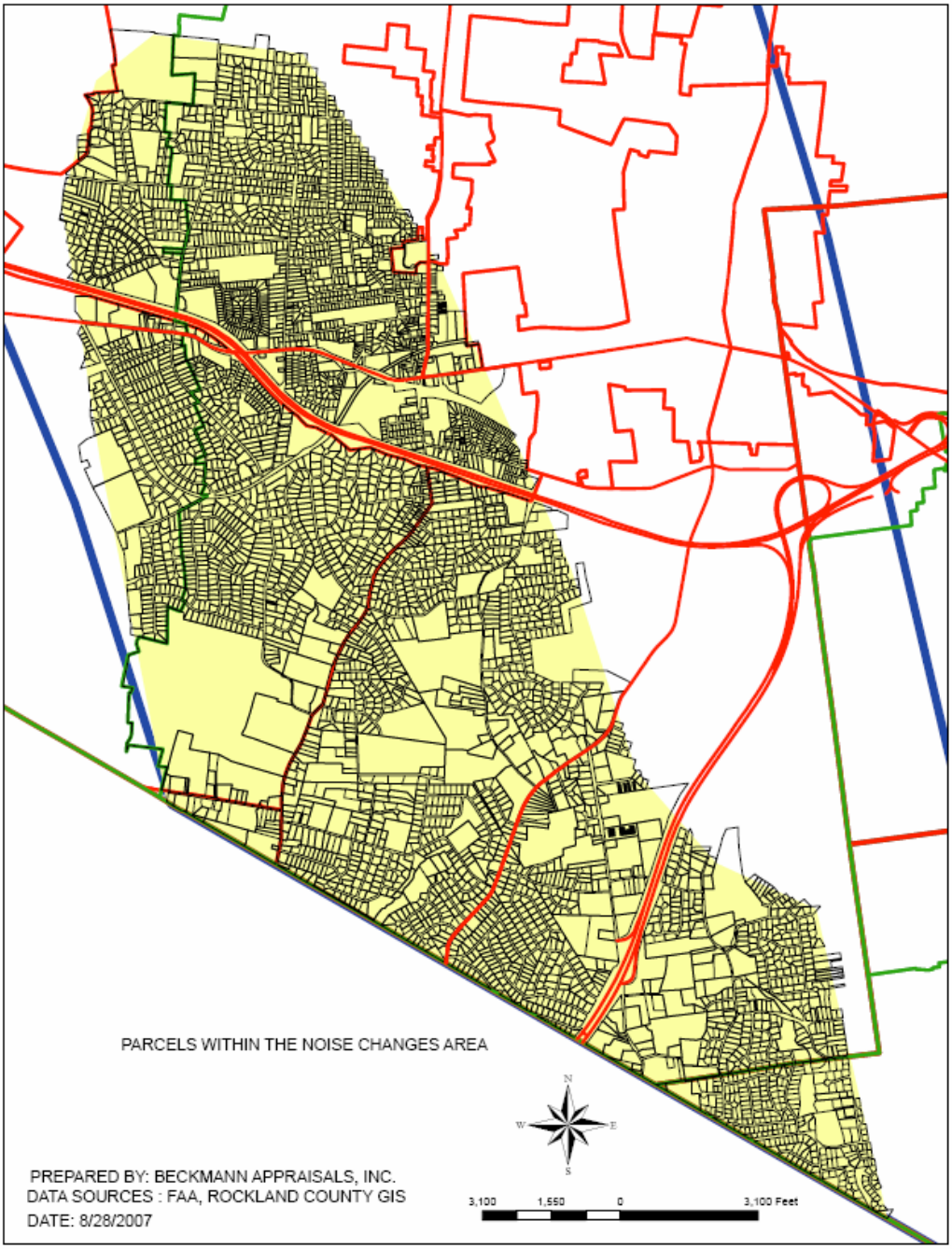

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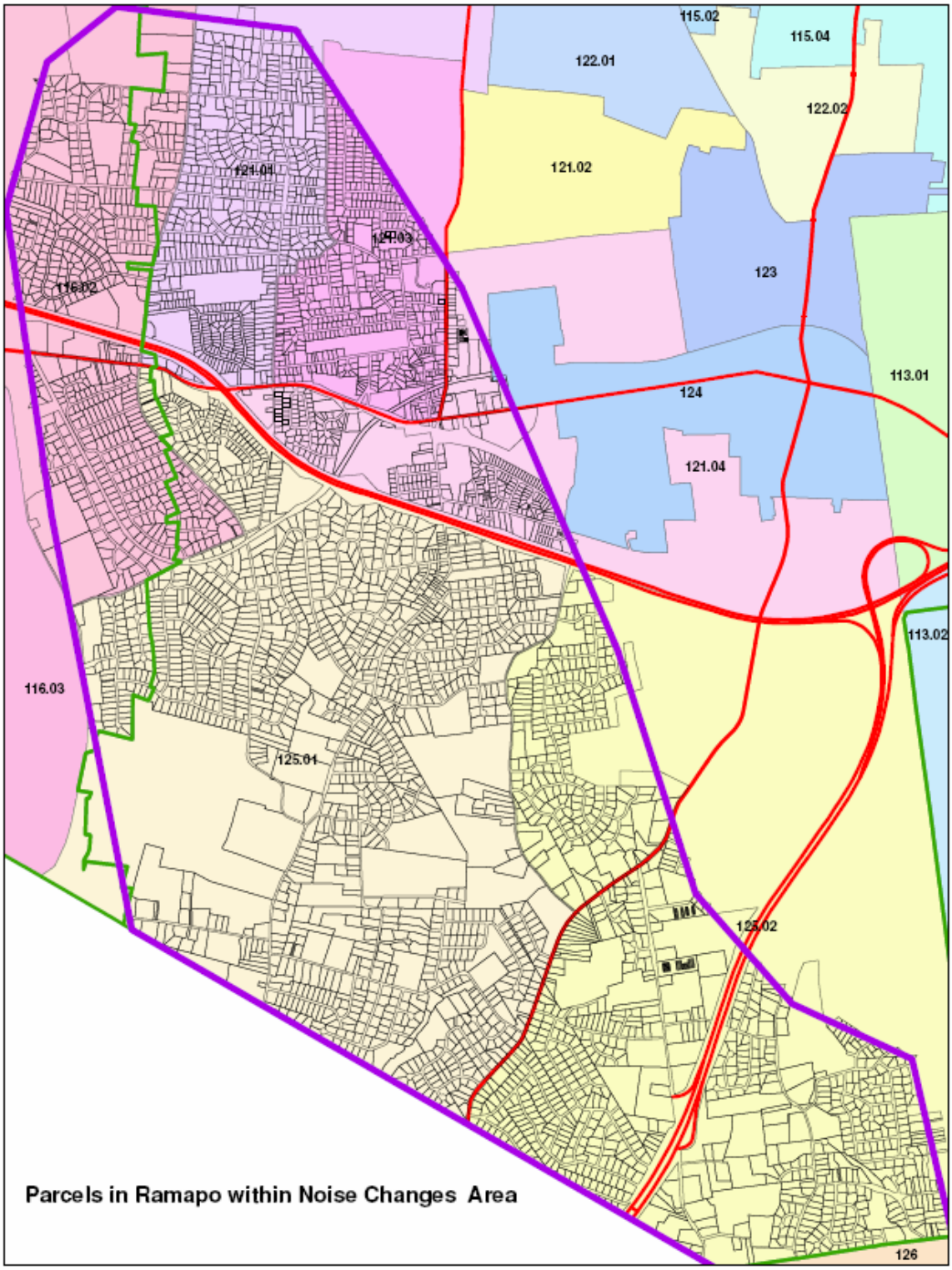
FIGURE 6



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We then linked the tax parcel maps both for the noise affected area within the flight path, and those areas not projected to be affected by increased noise, with the underlying tax assessment information for each parcel.

Having established the assessment data for our areas of interest, we then sought to estimate first the value/assessment changes that are anticipated to affect those parcels situated within the increased noise level areas as well as those parcels that are within the flight plan that will be subject to increased flight traffic only. We first present the detailed calculation of Real Property County and Town tax currently applicable to each of the affected municipalities, as currently provided and published by the municipalities in Schedules A and B, annexed. Thereafter, we isolate the assessment of those properties that are anticipated to have a significant increase in the ground noise level and assume for purposes of our calculations a value and thereby concomitant reduction in the assessment of these properties at 3%, 5% and 7%. We have also considered separately, but not cumulatively, those parcels that were affected only by the change in flight patterns (but not subject to increased noise) reducing their assessments at a rate of 1, 2 and 3%.

We next reduce the existing assessments affected by the FAA Flight Pattern Redesign Project and revise the apportionment of the county tax levy to each of the five towns within Rockland County to estimate the resultant tax rate for each of the town municipalities. A similar analysis is undertaken with respect to the Town of Ramapo, although we have only considered the change in the primary components of the town tax level, General & Highway Expenses and Police Expenses, and reduce their applicable assessment bases by the above percentages. Within the time constraints of our retention we were unable to calculate the tax shift of all the special taxing districts within the Town of Ramapo. By reason of the multiplicity of sub-benefit districts within the town that affect various geographic and sub-political units within the town it is not practical, meaningful or illustrative of the total tax rate change in the town. However, each of the two main components General & Highway, and Police had rate increases associated with the assessment decreases as set forth in Figure 7 below. Accordingly, with certainty there

will be an intra-town shift and a “change in flight pattern tax” to all those properties that are outside the flight pattern and/or the increased noise area.

FIGURE 7

COUNTY OF ROCKLAND	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				COUNTY TAX RATE / THOU					
	ASSESSED VALUE	COUNTY	COUNTY TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
Town	USED FOR APPORTIONMENT	TAX LEVY	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
Clarkstown	$ 4,275,133,811	$ 15,912,861	$ 3.9214	$ 3.9274	$ 0.0059	$ 3.9274	$ 0.0059	$ 3.9274	$ 0.0059
Haverstraw	$ 4,921,283,657	$ 4,280,977	$ 0.9207	$ 0.9221	$ 0.0014	$ 0.9222	$ 0.0014	$ 0.9222	$ 0.0014
Orangetown	$ 4,139,379,869	$ 9,554,408	$ 2.4088	$ 2.4125	$ 0.0037	$ 2.4126	$ 0.0038	$ 2.4126	$ 0.0039
Ramapo	$ 1,781,530,877	$ 13,530,567	$ 8.1408	$ 8.1558	$ 0.0150	$ 8.1585	$ 0.0177	$ 8.1612	$ 0.0204
Stony Point	$ 359,065,070	$ 2,974,187	$ 8.5359	$ 8.5488	$ 0.0129	$ 8.5488	$ 0.0129	$ 8.5488	$ 0.0129
Total	$ 15,476,393,284	$ 46,253,000	$ 3.1498	$ 3.1525	$ 0.0027	$ 3.1504	$ 0.0006	$ 3.1483	$ (0.0015)

COUNTY OF ROCKLAND	ORIGINAL DATA			REVISED DATA					
Summary AV of properties within Increased Noise Area				COUNTY TAX RATE / THOU					
	ASSESSED VALUE	COUNTY	COUNTY TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
Town	USED FOR APPORTIONMENT	TAX LEVY	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
Clarkstown	$ 4,275,133,811	$ 15,912,861	$ 3.9214	$ 3.9281	$ 0.0066	$ 3.9281	$ 0.0066	$ 3.9281	$ 0.0066
Haverstraw	$ 4,921,283,657	$ 4,280,977	$ 0.9207	$ 0.9223	$ 0.0016	$ 0.9223	$ 0.0016	$ 0.9223	$ 0.0016
Orangetown	$ 4,139,379,869	$ 9,554,408	$ 2.4088	$ 2.4129	$ 0.0041	$ 2.4129	$ 0.0041	$ 2.4129	$ 0.0042
Ramapo	$ 1,781,530,877	$ 13,530,567	$ 8.1408	$ 8.1578	$ 0.0170	$ 8.1600	$ 0.0192	$ 8.1622	$ 0.0214
Stony Point	$ 359,065,070	$ 2,974,187	$ 8.5359	$ 8.5503	$ 0.0144	$ 8.5503	$ 0.0144	$ 8.5503	$ 0.0144
Total	$ 15,476,393,284	$ 46,253,000	$ 3.1498	$ 3.1522	$ 0.0024	$ 3.1503	$ 0.0005	$ 3.1484	$ (0.0014)

TOWN OF RAMAPO	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				TOWN TAX RATE / THOU					
		TAX LEVY	TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
FUNDS	ASSESSED VALUE	(BUDGET)	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
Gen & Hwy	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6673	$ 0.0424	$ 8.7101	$ 0.0852	$ 8.7534	$ 0.1285
Police	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.7491	$ 0.1129	$ 18.8633	$ 0.2271	$ 18.9789	$ 0.3427
TOWN OF RAMAPO	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ IncNoise Area Reductions				TOWN TAX RATE / THOU					
	ORIGINAL DATA	TAX LEVY	TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
FUNDS	ASSESSED VALUE	(BUDGET)	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
Gen & Hwy	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6763	$ 0.0514	$ 8.7109	$ 0.0860	$ 8.7458	$ 0.1209
Police	$ 355,575,487	$ 25,088,762	$ 70.5582	$ 18.7730	$ (51.7852)	$ 18.8653	$ (51.6929)	$ 18.9585	$ (51.5997)

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The East Ramapo Central School District (ERCSD), predominantly serves the Town of Ramapo and several portions of the towns of Clarkstown and Haverstraw which for school tax purposes are unaffected by the change in flight patterns (a small portion of the Town of Haverstraw is subject to the change in flight patterns and is reflected in the reduced assessment value when calculating the revised county tax rate). Further, the school tax scheme apportions the taxes substantially based on the pro-rata full value of the assessments within each of the respective towns. Approximately 15,000 parcels within the Town of Ramapo are anticipated to be affected by the FAA Flight Pattern Redesign Project; the majority of these parcels, approximately 13,100 are situated within the East Ramapo CSD, see annexed municipality assessment summary and parcel count of affected parcels. School census data indicates that this district generally serves a minority and disadvantaged community, reportedly 60% African-Americans, and 18% Hispanic.

For purposes of illustration we reduced the assessments of those parcels in the Town of Ramapo that were affected by the change in flight patterns at a rate of 1, 2 and 3% and separately, but not cumulatively, those parcels within the increased noise area by 3, 5, & 7% reductions and reallocated the taxes attributable to each of the town school district segments based upon their new pro-rata shares of value and recalculated the applicable tax rates. The results are summarized in the annexed Schedule C for both the school district and the school district library, Finklestein Memorial Library, also a separate taxing entity. The upshot is that the tax rate for all taxpayers in the school district and the school district library increased, while the amount of tax collected within that portion of the school district and library district within the Town of Ramapo decreased and the share of taxes paid by the unaffected parcels increased. This tax shift can be directly attributable to the new flight patterns and amounts to a “change in flight pattern real property tax”.

The Ramapo Central School District (Ramapo CSD), predominantly serves the Town of Ramapo and several portions of the towns of Haverstraw and Tuxedo. Similar to the ERCSD analysis above, we have reduced the assessments of those parcels affected by

the change in flight patterns and those parcels within the increased noise area using the same percentages. The results are summarized in the annexed Schedule D for both the school district and the school district library, Suffern Free Library, also a separate taxing entity.

A summary of the resultant changes within each of the two school districts, East Ramapo CSD and Ramapo CSD is provided in Figures 8 and 9, below.

FIGURE 8

EAST RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				SCHOOL TAX RATE / THOU					
		SCHOOL	SCHOOL TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
RAMAPO	$ 1,043,308,693	$ 99,188,687	$ 95.0713	$ 95.5544	$ 0.4832	$ 96.0425	$ 0.9712	$ 96.5356	$ 1.4643
CLARKSTOWN	$ 314,821,265	$ 14,389,867	$ 45.7081	$ 45.9403	$ 0.2323	$ 46.1750	$ 0.4669	$ 46.4121	$ 0.7040
HAVERSTRAW	$ 631,776,639	$ 7,488,318	$ 11.8528	$ 11.9130	$ 0.0602	$ 11.9739	$ 0.1211	$ 12.0354	$ 0.1826
TOTAL	$ 1,989,906,597	$ 121,066,872	$ 60.8405	$ 61.0380	$ 0.1975	$ 61.2368	$ 0.3963	$ 61.4369	$ 0.5964

EAST RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				LIBRARY TAX RATE / THOU					
		LIBRARY	LIBRARY TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
RAMAPO	$ 1,043,308,693	$ 4,983,043	$ 4.7762	$ 4.8005	$ 0.0243	$ 4.8250	$ 0.0488	$ 4.8498	$ 0.0736
CLARKSTOWN	$ 314,821,265	$ 722,918	$ 2.2963	$ 2.3080	$ 0.0117	$ 2.3197	$ 0.0235	$ 2.3317	$ 0.0354
HAVERSTRAW	$ 631,776,639	$ 376,198	$ 0.5955	$ 0.5985	$ 0.0030	$ 0.6015	$ 0.0061	$ 0.6046	$ 0.0092
TOTAL	$ 1,989,906,597	$ 6,082,160	$ 3.0565	$ 3.0646	$ 0.0081	$ 3.0727	$ 0.0162	$ 3.0808	$ 0.0243

EAST RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ IncNoise Area Reductions				SCHOOL TAX RATE / THOU					
		SCHOOL	SCHOOL TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
RAMAPO	$ 1,043,308,693	$ 99,188,687	$ 95.0713	$ 95.6989	$ 0.6276	$ 96.1219	$ 1.0507	$ 96.5487	$ 1.4775
CLARKSTOWN	$ 314,821,265	$ 14,389,867	$ 45.7081	$ 46.0098	$ 0.3017	$ 46.2132	$ 0.5051	$ 46.4184	$ 0.7103
HAVERSTRAW	$ 631,776,639	$ 7,488,318	$ 11.8528	$ 11.9310	$ 0.0782	$ 11.9838	$ 0.1310	$ 12.0370	$ 0.1842
TOTAL	$ 1,989,906,597	$ 121,066,872	$ 60.8405	$ 61.0969	$ 0.2564	$ 61.2691	$ 0.4286	$ 61.4422	$ 0.6017

EAST RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ IncNoise Area Reductions				LIBRARY TAX RATE / THOU					
		LIBRARY	LIBRARY TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
RAMAPO	$ 1,043,308,693	$ 4,983,043	$ 4.7762	$ 4.8077	$ 0.0315	$ 4.8290	$ 0.0528	$ 4.8504	$ 0.0742
CLARKSTOWN	$ 314,821,265	$ 722,918	$ 2.2963	$ 2.3114	$ 0.0152	$ 2.3217	$ 0.0254	$ 2.3320	$ 0.0357
HAVERSTRAW	$ 631,776,639	$ 376,198	$ 0.5955	$ 0.5994	$ 0.0039	$ 0.6020	$ 0.0066	$ 0.6047	$ 0.0093
TOTAL	$ 1,989,906,597	$ 6,082,160	$ 3.0565	$ 3.0670	$ 0.0105	$ 3.0740	$ 0.0175	$ 3.0810	$ 0.0245

FIGURE 9

RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				SCHOOL TAX RATE / THOU					
		SCHOOL	SCHOOL TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
RAMAPO	$ 615,755,663	$ 84,112,916	$ 136.6011	$ 136.9542	$ 0.3531	$ 137.3092	$ 0.7081	$ 137.6660	$ 1.0649
HAVERSTRAW	$ 178,880,590	$ 3,046,414	$ 17.0304	$ 17.0745	$ 0.0440	$ 17.1187	$ 0.0883	$ 17.1632	$ 0.1328
TUXEDO	$ 7,921,269	$ 1,024,930	$ 129.3896	$ 129.7241	$ 0.3345	$ 130.0603	$ 0.6707	$ 130.3982	$ 1.0086
TOTAL	$ 802,557,522	$ 88,184,260	$ 109.8791	$ 110.1074	$ 0.2284	$ 110.3367	$ 0.4577	$ 110.5670	$ 0.6879

RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ Flight Path Reductions				LIBRARY TAX RATE / THOU					
		LIBRARY	LIBRARY TAX	FP	$ CHANGE	FP	$ CHANGE	FP	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	1.0%	PER THOU	2.0%	PER THOU	3.0%	PER THOU
RAMAPO	$ 615,755,663	$ 2,683,229	$ 4.3576	$ 4.3689	$ 0.0113	$ 4.3802	$ 0.0226	$ 4.3916	$ 0.0340
HAVERSTRAW	$ 178,880,590	$ 97,182	$ 0.5433	$ 0.5447	$ 0.0014	$ 0.5461	$ 0.0028	$ 0.5475	$ 0.0042
TUXEDO	$ 7,921,269	$ 32,696	$ 4.1276	$ 4.1382	$ 0.0107	$ 4.1490	$ 0.0214	$ 4.1597	$ 0.0322
TOTAL	$ 802,557,522	$ 2,813,106	$ 3.5052	$ 3.5121	$ 0.0070	$ 3.5191	$ 0.0140	$ 3.5262	$ 0.0210

RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ IncNoise Area Reductions				SCHOOL TAX RATE / THOU					
		SCHOOL	SCHOOL TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
RAMAPO	$ 615,755,663	$ 84,112,916	$ 136.6011	$ 136.9100	$ 0.3089	$ 137.1167	$ 0.5156	$ 137.3240	$ 0.7229
HAVERSTRAW	$ 178,880,590	$ 3,046,414	$ 17.0304	$ 17.0689	$ 0.0385	$ 17.0947	$ 0.0643	$ 17.1206	$ 0.0901
TUXEDO	$ 7,921,269	$ 1,024,930	$ 129.3896	$ 129.6822	$ 0.2926	$ 129.8779	$ 0.4883	$ 130.0743	$ 0.6847
TOTAL	$ 802,557,522	$ 88,184,260	$ 109.8791	$ 110.0788	$ 0.1998	$ 110.2124	$ 0.3333	$ 110.3463	$ 0.4672

RAMAPO CSD	ORIGINAL DATA			REVISED DATA					
Comparison of Original Data w/ IncNoise Area Reductions				LIBRARY TAX RATE / THOU					
		LIBRARY	LIBRARY TAX	IncNoise	$ CHANGE	IncNoise	$ CHANGE	IncNoise	$ CHANGE
	ASSESSED VALUE	TAX LEVY	RATE/THOU	3.0%	PER THOU	5.0%	PER THOU	7.0%	PER THOU
RAMAPO	$ 615,755,663	$ 2,683,229	$ 4.3576	$ 4.3675	$ 0.0099	$ 4.3741	$ 0.0164	$ 4.3807	$ 0.0231
HAVERSTRAW	$ 178,880,590	$ 97,182	$ 0.5433	$ 0.5445	$ 0.0012	$ 0.5453	$ 0.0021	$ 0.5462	$ 0.0029
TUXEDO	$ 7,921,269	$ 32,696	$ 4.1276	$ 4.1369	$ 0.0093	$ 4.1431	$ 0.0156	$ 4.1494	$ 0.0218
TOTAL	$ 802,557,522	$ 2,813,106	$ 3.5052	$ 3.5113	$ 0.0061	$ 3.5154	$ 0.0102	$ 3.5194	$ 0.0143

CONCLUSION

We have made minimally reasonable assumptions as to the effect of the change in the flight paths both under the unmitigated and thereafter mitigated area. In the unmitigated scenario, where there will be a significant change in noise level in the so called affected area, we have employed reasonable assumptions to bracket the consequences of the increased noise level. The results will be a devaluation of the properties within the noise zone of 3% to 7%. The consequence results in the devaluation in the property and thereafter results in a decrease in their tax assessment. Where a significant area of Rockland County has a reduction in value assessments, the resultant consequence will be a shift in Real Property Taxes throughout the entire town, school district(s) and county, increasing the tax rates and increasing the absolute amounts of real property taxes paid by those properties that are not so affected. Thus there is a double-edged effect, a reduction in value of the assessed properties and increased taxes to the unaffected properties.

We have similarly made reasonable assumptions as to the devaluation of those properties with mitigation in the range of 1 to 3%. Although the absolute noise impacts are lower, the impact is more extensive since they cover a greater land area. They likewise result in a devaluation of properties in the shadow of the flight path and cause a shift in taxes to those municipalities that do not experience the likely devaluation of their properties.

We are very cautious in our estimate as we understand that they do not take into account the vast reported air traffic so that, we hypothecate, that the number of flights and perhaps their elevation above ground may be changed to reflect this increased demand. Overall, the consequences in the future are likely to be greater than those that we considered and analyzed.

ADDENDUM

WILLIAM R. BECKMANN, MAI, CRE

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PROFESSIONAL DESIGNATIONS

IAO 1989 Member, Institute of Assessing Officers
MAI 1990 Member, Appraisal Institute
CRE 2000 Member, Counselors of Real Estate

LICENSED

Certified General Real Estate Appraiser, New York State
Certified General Real Estate Appraiser, New Jersey
Approved Real Estate Appraiser Instructor, New York State
Approved Real Estate Instructor, New York State
Real Estate Broker, New York State
Real Estate Broker, New Jersey
Notary Public, New York State

NEW YORK STATE ASSESSOR (Office of Real Property Tax Services)

State Certified Assessor (7-17-89)
State Certified Assessor (Advanced) (9-15-89)
State Certified Assessor (Professional) (9-15-89)
State Certified Assessor (National) (3-28-90)

EMPLOYMENT

1996 to Present Beckmann Appraisals, Inc., Tappan, New York
1982 to 2001 Assessor - Village of Spring Valley, New York
1979 to 1995 Beckmann Realty, Inc., Tappan, New York
1976 to 1979 Real Estate Salesman, Pearl River, New York

AREAS OF EXPERTISE

- Real Property Assessments and Taxation
- Approved Fee Appraiser, New York State Department of Transportation
- All aspects of General Appraising including:

Right-of-way	Condemnation	Estate
Commercial and Industrial	Residential	Mortgage
Hotels and Motels	Certiorari	Feasibility

- Geographic Information Systems
  Developed GIS system for:
  Suffolk County: Half Hollows Central School District
  Middle Country Central School District

Rockland County: Town of Clarkstown
South Orangetown Central School District
Town of Orangetown
Town of Orangetown Highway Department
Rockland County Solid Waste Management Authority
Rockland County Sewer District No. 1

EDUCATION

- Pace University, BBA Finance, 1980
- Appraisal Institute (American Institute of Real Estate Appraisers):
  - Standards of Professional Practice
  - Real Estate Appraisal Principles
  - Basic Valuation
  - Residential Valuation
  - Capitalization, Theory & Techniques
  - Case Studies in Real Estate Valuation
  - Valuation Analysis & Report Writing
  - Rates, Ratios & Relationships
  - Hotels/Motels Appraisals
  - Regression Analysis in Appraisal Practice
  - Appraisal Issues…in the Millennium
  - What's it Worth? Valuation of Real Property in Litigation
  - Case Studies in Commercial Highest & Best Use
  - Advanced Applications
  - Attacking & Defending an Appraisal Litigation
  - HUD Rent Comparability Studies
  - Case Studies in Ltd. Partnership & Common Tenancy Valuation
  - Appraisal Consulting: A solutions Approach for Professionals
  - Subdivision Valuation: A Comprehensive Guide to Valuing Improved Subdivisions
  - Analyzing Commercial Lease Clauses – Implications for Property Value and Marketability
  - Supporting Capitalization Rates
- New York State Department of Equalization and Assessment:
  - Assessor's Basic Phase I
  - Assessor's Basic Phase II
  - Forestry Appraisal
  - Fundamentals of Equalization
  - Income Approach I
  - Income Approach II
  - Industrial Valuation
  - Mass Appraisal
- Other: Business, Faith & Ethics, CRE
  - Electric Asset Valuation, CBI
  - Taxation in the Deregulated Electric Industry, CBI
  - Annual Legal Seminar, IAAO
  - Advanced Income Approach, NYS Assessor's Association
  - FIRREA Overview and Practical Application
  - Passport I & II, Orange County Association of Realtors
  - Northeast Arc Users Group Conference, NEARC
  - NYS Geographic Information Systems Conference SUNY College of ESF

TEACHING

Taxes and Assessments
Ethics and Standards (E & S)
Appraisal Methods (G1)
Appraisal Applications (G3)
Taxes and Assessments
Construction Home Inspection
Appraisal Report Writing (R3)
Income Capitalization (G2)
Appraisal Basics (R1)
Single Family Appraisal (R2)
Real Property Taxes and Assessments
Real Estate Appraisal, Cornell University, Dominican College
Rockland County Board of Realtors, Rockland Community College
Real Estate Fundamentals, Principals and Practices of Real Estate
Income Approach to Valuation, New York State Association of Towns
Elementary Income and Capitalization Methods & Techniques (R4)
Valuation of Cell Towers & Sites

EXPERT TESTIMONY

United States District Court for Southern District of New York
Supreme Court State of New York:
Counties of Orange, Rockland, Westchester, Dutchess, Putnam, Schoharie, Columbia, Putnam, Sullivan, and Ulster

County Legislature:
County of Rockland

Authorities:
Metropolitan Transit Authority
Metro North Transit
Rockland County Solid Waste Management Authority

United States Bankruptcy Court:
Eastern District of New York
Southern District of New York

Zoning Board of Appeals:
Towns of Clarkstown, Orangetown, Ramapo
Villages of Nyack, Piermont, South Nyack, Spring Valley, Upper Nyack

Planning Boards:
Towns of Clarkstown, Orangetown, Ramapo
Villages of Piermont, South Nyack, Spring Valley, Upper Nyack
Airmont, Montebello

Town Boards:
Towns of Clarkstown, Orangetown, Ramapo, Stony Point

Village Boards:
Villages of Nyack, Piermont, South Nyack, Spring Valley
Airmont, Montebello

BROKERAGE AND APPRAISAL

State of New York:

- Albany County
- Columbia County
- Dutchess County
- Delaware County
- Erie County
- Herkimer County
- Madison County
- Orange County
- Putnam County
- Rockland County
- Saratoga County
- Schoharie County
- Schenectady County
- Suffolk County
- Sullivan County
- Ulster County
- Westchester County
- Nassau County
- New York City, all 5 Boroughs
- Greene County

State of New Jersey:

- Bergen County
- Ocean County
- Passaic County
- Hudson County

State of Connecticut:

- Fairfield County

MEMBERSHIPS

International Association of Assessing Officers
The Appraisal Institute
The Counselors of Real Estate
National Association of Realtors
New York State Association of Realtors
New York State Assessors Association
Rockland County Multiple Listing System
United Real Estate Brokers of Rockland
Rockland County Society of Real Estate Appraisers, Inc.
Rockland County Assessors Association - past President
Rockland County Board of Realtors - past President
Greater Hudson Valley MLS

SAMPLE REFERENCE SUBSCRIPTIONS

Valuation Insights and Perspectives
Westchester County Business Journal
Hudson Valley Business Source
Monetary Trends
Bureau of Labor Statistics
The Federal Reserve Bank of St. Louis
Real Property Tax Administration Reporter
PKF Consulting Trends in the Hotel Industry
The ULI Dollars & Cents of Shopping Centers
Uniform Standards of Professional Appraisal Practice
Assessment Journal
Fairfield County Business Journal
National Economic Trends
The Appraiser News
The Federal Reserve Bank of New York
Marshall Valuation Service
Korpacz Real Estate Investor Survey
BOMA Experience Exchange Report
US Census

MUNICIPALITY ASSESSMENT SUMMARY OF PARCELS WITHIN THE FAA FLIGHT PLAN REDESIGN PROJECT

ASSESSMENT SUMMARY

Town of Ramapo:	**Parcel Count**		**Assessment**	
Flight Path (T):	14,999	$	1,137,264,772	All Parcels (inclusive of Inc Noise Change Area)
Noise Change Area:	4,374	$	326,931,875	
Flight Path:	10,625	$	810,332,897	Excluding parcels within Inc Noise Change Area

East Ramapo CSD:	**Parcel Count**		**Assessment**	
Flight Path (T):	13,111	$	922,270,723	All Parcels (inclusive of Inc Noise Change Area)
Noise Change Area:	3,815	$	278,385,775	
Flight Path:	9,296	$	643,884,948	Excluding parcels within Inc Noise Change Area

Ramapo CSD:	**Parcel Count**		**Assessment**	
Flight Path (T):	1,888	$	214,994,049	All Parcels (inclusive of Inc Noise Change Area)
Noise Change Area:	559	$	48,546,100	
Flight Path:	1,329	$	166,447,949	Excluding parcels within Inc Noise Change Area

Town of Orangetown:	**Parcel Count**		**Assessment**	
Flight Path (T):	1,766	$	358,593,174	All Parcels (inclusive of Inc Noise Change Area)
Noise Change Area:	249	$	49,160,700	
Flight Path:	1,517	$	309,432,474	Excluding parcels within Inc Noise Change Area

Town of Haverstraw:	**Parcel Count**		**Assessment**	
Flight Path (T):	97	$	120,705,200	All Parcels (inclusive of Inc Noise Change Area)
Noise Change Area:	N/A		N/A	

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 1

County of Rockland
2007 Tax Rate Calc (Flight Path Reductions)

County Of Rockland													
Calculation of Real Property Tax (form 6094)													
2007													
Summary AV of properties within Flight Path:													
Ramapo		$ 810,332,897											
Orangetown		$ 309,432,474											
Haverstraw		$ 120,705,200											
Tax Levy Per Budget		$46,253,000											
			Taxable		Full Valuation				Net				
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.40%	15,912,861		15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.26%	4,280,977		4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408		9,554,408			2.40877
392600	Ramapo	1,781,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567		13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187		2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000	0	46,253,000	0		3.14981
							$0					
REVISED:													
Assessment Reduction @ %		1.0%											
Ramapo Assessment Reduction:		$8,103,325											
Orangetown Assessment Reduction:		$3,094,325											
Haverstraw Assessment Reduction:		$1,207,052											
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation				Net				
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.46%	15,936,889		15,936,889			3.92736
392200	Haverstraw	4,920,076,605	4,649,475,215	118.74	4,143,571,337	9.27%	4,286,390		4,286,390			0.92191
392400	Orangetown	4,136,285,544	3,966,510,623	44.75	9,243,096,188	20.67%	9,561,682		9,561,682			2.41060
392600	Ramapo	1,773,427,548	1,653,963,554	13.60	13,039,908,441	29.16%	13,489,361		13,489,361			8.15578
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.44%	2,978,678		2,978,678			8.54879
	Total	15,463,988,578	14,676,295,712		44,711,894,768		46,253,000	0	46,253,000	0		3.15154
								Town	Absolute Change			
								Clarkstown	24,028			
								Haverstraw	5,413			
								Orangetown	7,274			
								Ramapo	41,205			
								Stony Point	4,491			

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Flight Path

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
(845) 359-0070

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 2

County of Rockland
2007 Tax Rate Calc (Flight Path Reductions)

County Of Rockland
Calculation of Real Property Tax (form 6094)
2007

Summary AV of properties within Flight Path:												
Ramapo		$ 810,332,897										
Orangetown		$ 309,432,474										
Haverstraw		$ 120,705,200										
Tax Levy Per Budget		$46,253,000										
			Taxable		Full Valuation				Net			
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.40%	15,912,861		15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.26%	4,280,977		4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408		9,554,408			2.40877
392600	Ramapo	1,781,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567		13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187		2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000	0	46,253,000	0		3.14981
							$0					
REVISED:												
Assessment Reduction @ %		2.0%										
Ramapo Assessment Reduction:		$16,206,658										
Orangetown Assessment Reduction:		$6,188,645										
Haverstraw Assessment Reduction:		$2,414,104										
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation				Net			
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.51%	15,936,889		15,936,889			3.92736
392200	Haverstraw	4,918,869,553	4,649,475,215	118.74	4,142,554,786	9.28%	4,285,338		4,285,338			0.92168
392400	Orangetown	4,133,131,220	3,966,510,623	44.75	9,236,181,496	20.69%	9,554,529		9,554,529			2.40880
392600	Ramapo	1,765,324,219	1,645,860,225	13.60	12,980,325,140	29.07%	13,427,724		13,427,724			8.15848
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.45%	2,978,678		2,978,678			8.54875
	Total	15,451,583,873	14,668,192,383		44,644,380,224		46,183,158	0	46,183,158	0		3.14852
								Town	Absolute Change			
								Clarkstown	24,028			
								Haverstraw	4,361			
								Orangetown	121			
								Ramapo	102,843			
								Stony Point	4,491			

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Flight Path

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
(845) 359-0070

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 3

County of Rockland
2007 Tax Rate Calc (Flight Path Reductions)

County Of Rockland												
Calculation of Real Property Tax (form 6094)												
2007												
Summary AV of properties within Flight Path:												
Ramapo		$ 810,332,897										
Orangetown		$ 309,432,474										
Haverstraw		$ 120,705,200										
Tax Levy Per Budget		$46,253,000										
			Taxable		Full Valuation				Net			
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy		Explanation	Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &		Of	Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments		Adjustments	Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.40%	15,912,861		15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,687	9.26%	4,280,977		4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408		9,554,408			2.40877
392600	Ramapo	1,781,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567		13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187		2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000	0	46,253,000		0	3.14981
							$0					
REVISED:												
Assessment Reduction @ %		3.0%										
Ramapo Assessment Reduction:		$24,309,987										
Orangetown Assessment Reduction:		$9,282,974										
Haverstraw Assessment Reduction:		$3,621,156										
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation				Net			
			Assessed Value	Certified	Of Taxable			Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County	Of Credits &	Levy		Explanation	Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General	Adjustment	After Credits &		Of	Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy	+ or (-)	Adjustments		Adjustments	Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.56%	15,936,883		15,936,883			3.92736
392200	Haverstraw	4,917,662,501	4,649,475,215	118.74	4,141,538,236	9.29%	4,284,287		4,284,287			0.92146
392400	Orangetown	4,130,096,895	3,966,510,623	44.75	9,225,266,804	20.70%	9,547,376		9,547,376			2.40700
392600	Ramapo	1,757,220,890	1,637,756,896	13.60	12,920,741,839	28.99%	13,366,087		13,366,087			8.16122
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.46%	2,978,678		2,978,678			8.54879
	Total	15,439,179,167	14,660,089,054		44,576,865,681		46,113,317	0	46,113,317		0	3.14550
								Town	Absolute Change			
								Clarkstown	24,028			
								Haverstraw	3,309			
								Orangetown	7,032			
								Ramapo	164,480			
								Stony Point	4,491			

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Flight Path

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
(845) 359-0070

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 1

County of Rockland
2007 Tax Rate Calculation (Inc Noise Area @ 3-5-7%)

County Of Rockland													
Calculation of Real Property Tax (form 6094)													
2007													
Summary AV of properties within Inc Noise Area:													
Ramapo		$ 326,931,875											
Orangetown		$ 49,160,700											
Haverstraw		$ -											
Tax Levy Per Budget		$46,253,000											
			Taxable		Full Valuation					Net			
			Assessed Value	Certified	Of Taxable				Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County		Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General		Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy		+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.40%	15,912,861			15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.26%	4,280,977			4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408			9,554,408			2.40877
392600	Ramapo	1,761,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567			13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187			2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000		0	46,253,000	0		3.14981
							$0						
REVISED:													
Assessment Reduction @ %		3.0%											
Ramapo Assessment Reduction:		$9,807,956											
Orangetown Assessment Reduction:		$1,474,821											
Haverstraw Assessment Reduction:		$0											
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation					Net			
			Assessed Value	Certified	Of Taxable				Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County		Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General		Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy		+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.46%	15,939,705			15,939,705			3.92805
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.27%	4,288,199			4,288,199			0.92230
392400	Orangetown	4,137,905,048	3,966,510,623	44.75	9,246,715,191	20.68%	9,567,116			9,567,116			2.41157
392600	Ramapo	1,771,722,921	1,652,258,927	13.60	13,027,374,417	29.14%	13,478,776			13,478,776			8.15779
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.44%	2,979,204			2,979,204			8.55031
	Total	15,465,110,507	14,674,591,085		44,703,996,297		46,253,000		0	46,253,000	0		3.15191
									Town	Absolute Change			
									Clarkstown	26,844			
									Haverstraw	7,222			
									Orangetown	12,708			
									Ramapo	51,791			
									Stony Point	5,017			

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IncNoise

Page 1

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
(845) 359-0070

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 2

County of Rockland
2007 Tax Rate Calculation (Inc Noise Area @ 3-5-7%)

County Of Rockland													
Calculation of Real Property Tax (form 6094)													
2007													
Summary AV of properties within Inc Noise Area:													
Ramapo		$ 326,931,875											
Orangetown		$ 49,160,700											
Haverstraw		$ -											
Tax Levy Per Budget		$46,253,000											
			Taxable		Full Valuation						Net		
			Assessed Value	Certified	Of Taxable				Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County		Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General		Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy		+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,687,607	34.40%	15,912,861			15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.26%	4,280,977			4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408			9,554,408			2.40877
392600	Ramapo	1,761,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567			13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187			2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000		0	46,253,000	0		3.14981
							$0						
REVISED:													
Assessment Reduction @ %		5.0%											
Ramapo Assessment Reduction:		$16,346,554											
Orangetown Assessment Reduction:		$2,458,035											
Haverstraw Assessment Reduction:		$0											
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation						Net		
			Assessed Value	Certified	Of Taxable				Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County		Of Credits &	Levy	Explanation		Formula
SWIS		Used For	The Tax Is	Equalization	Used For		General		Adjustment	After Credits &	Of		Tax
Code	Town	Apportionment	Actually Levied	Rate	Apportionment		Tax Levy		+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,687,607	34.50%	15,939,705			15,939,705			3.92805
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.28%	4,288,199			4,288,199			0.92230
392400	Orangetown	4,136,921,834	3,966,510,623	44.75	9,244,518,065	20.70%	9,564,843			9,564,843			2.41140
392600	Ramapo	1,765,184,283	1,645,720,289	13.60	12,979,296,200	29.07%	13,429,032			13,429,032			8.15937
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.45%	2,979,204			2,979,204			8.55031
	Total	15,457,588,655	14,668,052,447		44,653,720,954		46,200,983		0	46,200,983	0		3.14977
									Town	Absolute Change			
									Clarkstown	26,844			
									Haverstraw	7,222			
									Orangetown	10,435			
									Ramapo	101,535			
									Stony Point	5,017			

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IncNoise

Page 2

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
(845) 359-0070

SCHEDULE A

County of Rockland – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 3

County of Rockland
2007 Tax Rate Calculation (Inc Noise Area @ 3-5-7%)

County Of Rockland													
Calculation of Real Property Tax (form 6094)													
2007													
Summary AV of properties within Inc Noise Area:													
Ramapo		$ 326,931,875											
Orangetown		$ 49,160,700											
Haverstraw		$ -											
Tax Levy Per Budget		$46,253,000											
			Taxable		Full Valuation				Net Amounts	Net County Tax			
			Assessed Value	Certified	Of Taxable				Of Credits &	Levy	Explanation		County per
		Assessed Value	Upon Which	County	Real Property		County		Adjustment	After Credits &	Of		Formula Tax
SWIS Code	Town	Used For Apportionment	The Tax Is Actually Levied	Equalization Rate	Used For Apportionment		General Tax Levy		+ or (-)	Adjustments	Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.40%	15,912,861			15,912,861			3.92144
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.26%	4,280,977			4,280,977			0.92074
392400	Orangetown	4,139,379,869	3,966,510,623	44.75	9,250,010,880	20.66%	9,554,408			9,554,408			2.40877
392600	Ramapo	1,781,530,877	1,662,066,883	13.60	13,099,491,743	29.25%	13,530,567			13,530,567			8.14081
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.43%	2,974,187			2,974,187			8.53591
	Total	15,476,393,284	14,684,399,041		44,779,409,312		46,253,000		0	46,253,000	0		3.14981
							$0						
REVISED:													
Assessment Reduction @ %		7.0%											
Ramapo Assessment Reduction:		$22,885,231											
Orangetown Assessment Reduction:		$3,441,249											
Haverstraw Assessment Reduction:		$0											
Tax Levy Per Budget		$46,253,000	Taxable		Full Valuation					Net			
			Assessed Value	Certified	Of Taxable				Net Amounts	County Tax			County per
		Assessed Value	Upon Which	County	Real Property		County		Of Credits &	Levy	Explanation		Formula Tax
SWIS Code	Town	Used For Apportionment	The Tax Is Actually Levied	Equalization Rate	Used For Apportionment		General Tax Levy		Adjustment + or (-)	After Credits & Adjustments	Of Adjustments		Rate
392000	Clarkstown	4,275,133,811	4,057,913,829	27.75	15,405,887,607	34.54%	15,939,705			15,939,705			3.92805
392200	Haverstraw	4,921,283,657	4,649,475,215	118.74	4,144,587,887	9.29%	4,288,199			4,288,199			0.92230
392400	Orangetown	4,135,938,620	3,966,510,623	44.75	9,242,320,939	20.72%	9,562,569			9,562,569			2.41083
392600	Ramapo	1,758,645,646	1,639,181,652	13.60	12,931,217,583	28.99%	13,379,288			13,379,288			8.16218
392800	Stony Point	359,065,070	348,432,491	12.47	2,879,431,195	6.46%	2,979,204			2,979,204			8.55031
	Total	15,450,066,804	14,661,513,810		44,603,445,611		46,148,965		0	46,148,965	0		3.14763
									Town	Absolute Change			
									Clarkstown	26,844			
									Haverstraw	7,222			
									Orangetown	(8,161)			
									Ramapo	151,279			
									Stony Point	5,017			

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IncNoise

Page 3

Beckmann Appraisals, Inc., 67 Main Street, Tappan, NY 10983
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SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax

Town of Ramapo
2007 Tax Rate Calc (Original Data)

Town Of Ramapo					
Calculation of Real Property Tax					
2007					
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Part Town	$ 514,649,955	$ 2,456,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police*	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed						
Gen Town	$ 1,655,877,014					
Less: Suffern	$ (152,354,419)					
Less: Spring Valley	$ (157,285,162)					
	$ 1,346,237,433					

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2007 (Ramapo - OrigTaxCalc)

SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 1

Town of Ramapo
2007 Revised Tax Rate Calc (Flight Path Assessments 1% Reduction)

Town Of Ramapo					
Calculation of Real Property Tax					
2007					
Summary AV of properties within Flight Path	$ 810,332,897				
Assessment Reduction @ %	1.0%				
Assessment Reduction of:	$ 8,103,329				
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Gen & Hwy (Revised)	$ 1,647,773,685	$ 14,281,760	$ 8.6673			
Part Town	$ 514,649,955	$ 2,456,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Police* (Revised)	$ 1,338,134,104	$ 25,088,762	$ 18.7491			
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed	Original	Revised				
Gen Town	$ 1,655,877,014	$ 1,647,773,685				
Less: Suffern	$ (152,354,419)	$ (152,354,419)				
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)				
	$ 1,346,237,433	$ 1,338,134,104				

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FP 1%

SCHEDULE B

Town of Ramapo –Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 2

Town of Ramapo
2007 Revised Tax Rate Calc (Flight Path Assessments 2% Reduction)

Town Of Ramapo							
Calculation of Real Property Tax							
2007							
Summary AV of properties within Flight Path	$ 810,332,897						
Assessment Reduction @ %	2.0%						
Assessment Reduction of:	$ 16,206,658						
		TAX LEVY	BUDGET	ADOPTED	ACTUAL TO		
FUNDS	ASSESSED VALUE	(BUDGET)	RATE/THOU	RATE/THOU	COLLECT		BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371		$ 10,611.27
Gen & Hwy (Revised)	$ 1,639,670,356	$ 14,281,760	$ 8.7101				
Part Town	$ 514,649,955	$ 2,456,522	$ 4.7732	$ 4.7782	$ 2,459,100		$ 2,578.41
Hwy Item 1							
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328		$ 11,565.69
Police* (Revised)	$ 1,330,030,775	$ 25,088,762	$ 18.8633				
Fire District							
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006		$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314		$ 18.76
Monsey	$ 356,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289		$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997		$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765		$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117		$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076		$ 6.09
		$ 4,307,737			**$ 4,308,565**		**$ 827.99**
Ambulance							
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441		$ 614.40
Fire Protection							
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012		$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011		$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581		$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003		$ 3.12
		$ 393,584			**$ 393,607**		**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911		$ 1,910.81
Sewers							
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134		$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960		$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678		$ 1,678.39
*Police Assessed	Original	Revised					
Gen Town	$ 1,655,877,014	$ 1,639,670,356					
Less: Suffern	$ (152,354,419)	$ (152,354,419)					
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)					
	$ 1,346,237,433	$ 1,330,030,775					

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SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 3

Town of Ramapo
2007 Revised Tax Rate Calc (Flight Path Assessments 3% Reduction)

Town Of Ramapo						
Calculation of Real Property Tax						
2007						
Summary AV of properties within Flight Path	$ 810,332,897					
Assessment Reduction @ %	3.0%					
Assessment Reduction of:	$ 24,309,987					
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Gen & Hwy (Revised)	$ 1,631,567,027	$ 14,281,760	$ 8.7534			
Part Town	$ 514,649,955	$ 2,456,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Police* (Revised)	$ 1,321,927,446	$ 25,088,762	$ 18.9789			
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,388,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed	Original	Revised				
Gen Town	$ 1,655,877,014	$ 1,631,567,027				
Less: Suffern	$ (152,354,419)	$ (152,354,419)				
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)				
	$ 1,346,237,433	$ 1,321,927,446				

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FP 3%

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SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 1

Town of Ramapo
2007 Revised Tax Calc (Inc Noise Assessments 3% Reduction)

Town Of Ramapo					
Calculation of Real Property Tax					
2007					
Summary AV of properties within Increased Noise Area	$ 326,931,875				
Assessment Reduction @ %	3.0%				
Assessment Reduction of:	$ 9,807,956				
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Gen & Hwy (Revised)	$ 1,646,069,058	$ 14,281,760	$ 8.6763			
Part Town	$ 514,649,955	$ 2,466,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Police* (Revised)	$ 1,336,429,477	$ 25,088,762	$ 18.7730			
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,382,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed	Original	Revised				
Gen Town	$ 1,655,877,014	$ 1,646,069,058				
Less: Suffern	$ (152,354,419)	$ (152,354,419)				
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)				
	$ 1,346,237,433	$ 1,336,429,477				

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IncNoise 3%

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SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 2

Town of Ramapo
2007 Revised Tax Rate Calc (Inc Noise Assessments 5%)

Town Of Ramapo Calculation of Real Property Tax 2007						
Summary AV of properties within Increased Noise Area	$ 326,931,875					
Assessment Reduction @ %	5.0%					
Assessment Reduction of:	**$ 16,346,594**					
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Gen & Hwy (Revised)	**$ 1,639,530,420**	**$ 14,281,760**	**$ 8.7109**			
Part Town	$ 514,649,955	$ 2,458,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Police* (Revised)	**$ 1,329,890,839**	**$ 25,088,762**	**$ 18.8653**			
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed	Original	Revised				
Gen Town	$ 1,655,877,014	$ 1,639,530,420				
Less: Suffern	$ (152,354,419)	$ (152,354,419)				
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)				
	$ 1,346,237,433	$ 1,329,890,839				

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IncNoise 5%

SCHEDULE B

Town of Ramapo – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 3

2007 Town of Ramapo
Revised Tax Rate Calc (Inc Noise Assessments 7% Reduction)

Town Of Ramapo Calculation of Real Property Tax 2007						
Summary AV of properties within Increased Noise Area	$ 326,931,875					
Assessment Reduction @ %	7.0%					
Assessment Reduction of:	$ 22,885,231					
FUNDS	ASSESSED VALUE	TAX LEVY (BUDGET)	BUDGET RATE/THOU	ADOPTED RATE/THOU	ACTUAL TO COLLECT	BREAKAGE
Gen & Hwy (Original)	$ 1,655,877,014	$ 14,281,760	$ 8.6249	$ 8.6313	$ 14,292,371	$ 10,611.27
Gen & Hwy (Revised)	**$ 1,632,991,783**	**$ 14,281,760**	**$ 8.7458**			
Part Town	$ 514,649,955	$ 2,456,522	$ 4.7732	$ 4.7782	$ 2,459,100	$ 2,578.41
Hwy Item 1						
Police* (Original)	$ 1,346,237,433	$ 25,088,762	$ 18.6362	$ 18.6448	$ 25,100,328	$ 11,565.69
Police* (Revised)	**$ 1,323,352,202**	**$ 25,088,762**	**$ 18.9585**			
Fire District						
Moleston	$ 400,243,467	$ 1,456,840	$ 3.6399	$ 3.6403	$ 1,457,006	$ 166.29
Spring Valley	$ 16,020,689	$ 63,295	$ 3.9508	$ 3.9520	$ 63,314	$ 18.76
Monsey	$ 355,575,487	$ 1,271,000	$ 3.5745	$ 3.5753	$ 1,271,289	$ 289.04
Tallman	$ 398,491,912	$ 803,774	$ 2.0170	$ 2.0176	$ 803,997	$ 223.28
East SV	$ 6,239,740	$ 23,758	$ 3.8075	$ 3.8087	$ 23,765	$ 7.30
South SV	$ 136,386,639	$ 668,000	$ 4.8978	$ 4.8987	$ 668,117	$ 117.23
West SV	$ 7,331,323	$ 21,070	$ 2.8740	$ 2.8748	$ 21,076	$ 6.09
		$ 4,307,737			**$ 4,308,565**	**$ 827.99**
Ambulance						
District 1	$ 1,727,362,805	$ 2,710,827	$ 1.5693	$ 1.5697	$ 2,711,441	$ 614.40
Fire Protection						
Park Crest	$ 1,300,347	$ 16,009	$ 12.3113	$ 12.3136	$ 16,012	$ 2.95
Ramapo 1	$ 4,334,327	$ 150,000	$ 34.6074	$ 34.6099	$ 150,011	$ 10.62
Ramapo 2	$ 15,301,616	$ 219,575	$ 14.3498	$ 14.3502	$ 219,581	$ 6.25
Johnsontown Rd	$ 1,934,103	$ 8,000	$ 4.1363	$ 4.1379	$ 8,003	$ 3.12
		$ 393,584			**$ 393,607**	**$ 22.95**
Water	$ 1,256,681,431	$ 1,486,000	$ 1.1825	$ 1.1840	$ 1,487,911	$ 1,910.81
Sewers						
Operations (User)	$ 23,821	$ 1,607,719	$ 67.4917	$ 67.5091	$ 1,608,134	$ 415.27
Debt Service (AdVal)	$ 1,383,789,185	$ 3,053,077	$ 2.2063	$ 2.2084	$ 3,055,960	$ 2,883.04
Lighting District	$ 525,313,559	$ 360,000	$ 0.6853	$ 0.6885	$ 361,678	$ 1,678.39
*Police Assessed	Original	Revised				
Gen Town	$ 1,655,877,014	$ 1,632,991,783				
Less: Suffern	$ (152,354,419)	$ (152,354,419)				
Less: Spring Valley	$ (157,285,162)	$ (157,285,162)				
	$ 1,346,237,433	$ 1,323,352,202				

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IncNoise 7%

SCHEDULE C
East Ramapo CSD – Calculation of Real Property Tax

East Ramapo CSD
2007-08 Tax Rate Calc (Original Data)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
						state aid/revenues	65,953,596	
STEP 1: Obtain information from municipalities.								
East Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
			Levy	$ 121,066,872				
				$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
			Levy	$ 6,082,160				
				$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			

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2007-08

SCHEDULE C

East Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 1

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 1% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Flight Path			$ 922,270,723			state aid/revenues	65,953,596	
Assessment Reduction @ %			1.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 9,222,707	$ 1,034,085,985.77	$ 8,352,875,491	81.797%	$ 99,029,080.42	$ 95.76484	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	11.973%	$ 14,494,844.64	$ 46.04150	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.230%	$ 7,542,946.95	$ 11.93926	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
	Revised (1% reduction)		$ 1,980,683,889.77	$ 10,211,712,596.00	100%	$ 121,066,872.00	$ 61.12377	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (1% reduction)		$ 11.85569	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,034,085,985.77	$ 8,352,875,491	81.797%	$ 4,975,024.97	$ 4.81104	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	11.973%	$ 728,192.30	$ 2.31303	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.230%	$ 378,942.72	$ 0.59980	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (1% reduction)		$ 1,980,683,889.77	$ 10,211,712,596.00	100%	$ 6,076,886.14	$ 3.06807	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (1% reduction)		$ 0.59561	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 1%

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SCHEDULE C

East Ramapo CSD –Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 2

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 2% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Flight Path			$ 922,270,723			state aid/revenues	65,953,596	
Assessment Reduction @ %			2.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD	Equalization		Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Rate		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 18,445,414	$ 1,024,863,278.54	$ 8,278,378,663	81.663%	$ 98,867,128.10	$ 96.46860	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	12.061%	$ 14,601,365.00	$ 46.37986	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.276%	$ 7,598,378.89	$ 12.02700	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
	Revised (2% reduction)		$ 1,971,461,182.54	$ 10,137,215,768.61	100%	$ 121,066,872.00	$ 61.40972	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (2% reduction)		$ 11.94281	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,024,863,278.54	$ 8,278,378,663	81.663%	$ 4,966,888.81	$ 4.84639	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	12.061%	$ 733,543.67	$ 2.33003	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.276%	$ 381,727.51	$ 0.60421	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (2% reduction)		$ 1,971,461,182.54	$ 10,137,215,768.61	100%	$ 6,071,534.77	$ 3.07971	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (2% reduction)		$ 0.59998	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 2%

SCHEDULE C

East Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 3

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 3% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Flight Path			$ 922,270,723			state aid/revenues	65,953,596	
Assessment Reduction @ %			3.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD	**Equalization**		**Total Municipal**	**Full Value**	**Full Value**	**Dollar**	**Tax Rate per Thousand**	
Municipal Name	**Rate**		**Tot. Assessed Val.**		**Allocation**	**Allocation**	**On Assessed Value**	
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 27,668,122	$ 1,015,640,571.31	$ 8,203,881,836	81.527%	$ 98,702,777.84	$ 97.18278	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	12.150%	$ 14,709,462.56	$ 46.72322	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.323%	$ 7,654,631.59	$ 12.11604	
	Original		**$ 1,989,906,597.00**	**$ 10,286,209,423.38**	100%	**$ 121,066,872.00**	**$ 60.84048**	
	Revised (3% reduction)		**$ 1,962,238,475.31**	**$ 10,062,718,941.23**	100%	**$ 121,066,872.00**	**$ 61.69835**	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 12.03123	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,015,640,571.31	$ 8,203,881,836	81.527%	$ 4,958,632.18	$ 4.88227	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	12.150%	$ 738,974.28	$ 2.34728	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.323%	$ 384,553.54	$ 0.60869	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (3% reduction)		$ 1,962,238,475.31	$ 10,062,718,941.23	100%	$ 6,066,104.16	$ 3.09142	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 0.60443	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 3%

SCHEDULE C

East Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 1

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 3% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Increased Noise Area			$ 278,385,775			state aid/revenues	65,953,596	
Assessment Reduction @ %			3.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD	Equalization		Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Rate		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 8,351,573	$ 1,034,957,119.75	$ 8,359,912,114	81.810%	$ 99,044,255.63	$ 95.69890	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	11.964%	$ 14,484,863.50	$ 46.00980	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.226%	$ 7,537,752.88	$ 11.93104	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
	Revised (3% reduction)		$ 1,981,555,023.75	$ 10,218,749,219.42	100%	$ 121,066,872.00	$ 61.09690	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 11.84752	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,034,957,119.75	$ 8,359,912,114	81.810%	$ 4,975,787.35	$ 4.80772	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	11.964%	$ 727,690.87	$ 2.31144	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.226%	$ 378,681.78	$ 0.59939	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (3% reduction)		$ 1,981,555,023.75	$ 10,218,749,219.42	100%	$ 6,077,387.57	$ 3.06698	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 0.59520	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 3%

SCHEDULE C

East Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 2

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 5% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Increased Noise Area			$ 278,385,775			state aid/revenues	65,953,596	
Assessment Reduction @ %			5.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD	**Equalization**		**Total Municipal**	**Full Value**	**Full Value**	**Dollar**	**Tax Rate per Thousand**	
Municipal Name	**Rate**		**Tot. Assessed Val.**		**Allocation**	**Allocation**	**On Assessed Value**	
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 13,919,289	$ 1,029,389,404.25	$ 8,314,938,645	81.729%	$ 98,946,904.02	$ 96.12194	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	12.017%	$ 14,548,894.25	$ 46.21319	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.254%	$ 7,571,073.73	$ 11.98378	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
	Revised (5% reduction)		$ 1,975,987,308.25	$ 10,173,775,750.12	100%	$ 121,066,872.00	$ 61.26905	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (5% reduction)		$ 11.89990	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,029,389,404.25	$ 8,314,938,645	81.729%	$ 4,970,896.59	$ 4.82898	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	12.017%	$ 730,907.65	$ 2.32166	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.254%	$ 380,355.76	$ 0.60204	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (5% reduction)		$ 1,975,987,308.25	$ 10,173,775,750.12	100%	$ 6,074,170.80	$ 3.07399	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (5% reduction)		$ 0.59783	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 5%

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SCHEDULE C

East Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 3

East Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 7% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	121,066,872	using 07-08 equalization rates
					East Ramapo CSD	library levy	6,082,160	
Summary AV of properties within Increased Noise Area			$ 278,385,775			state aid/revenues	65,953,596	
Assessment Reduction @ %			7.0%					
STEP 1: Obtain information from municipalities.								
East Ramapo CSD	**Equalization**		**Total Municipal**	**Full Value**	**Full Value**	**Dollar**	**Tax Rate per Thousand**	
Municipal Name	**Rate**		**Tot. Assessed Val.**		**Allocation**	**Allocation**	**On Assessed Value**	
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 99,188,686.89	$ 95.07127	
Assessment Reduction of:		$ 19,487,004	$ 1,023,821,688.75	$ 8,269,965,176	81.648%	$ 98,848,687.89	$ 96.54873	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 14,389,867.20	$ 45.70805	
			$ 314,821,265.00	$ 1,222,606,854	12.071%	$ 14,613,493.62	$ 46.41838	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 7,488,317.92	$ 11.85279	
			$ 631,776,639.00	$ 636,230,251	6.281%	$ 7,604,690.49	$ 12.03699	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 121,066,872.00	$ 60.84048	
	Revised (7% reduction)		$ 1,970,419,592.75	$ 10,128,802,280.81	100%	$ 121,066,872.00	$ 61.44218	
			Levy	$ 121,066,872				
		Original		$ 11.76982	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (7% reduction)		$ 11.95273	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 1,043,308,693.00	$ 8,427,372,318	81.929%	$ 4,983,043.29	$ 4.77619	
			$ 1,023,821,688.75	$ 8,269,965,176	81.648%	$ 4,965,962.41	$ 4.85042	
CLARKSTOWN	0.2575		$ 314,821,265.00	$ 1,222,606,854	11.886%	$ 722,918.44	$ 2.29628	
			$ 314,821,265.00	$ 1,222,606,854	12.071%	$ 734,152.99	$ 2.33197	
HAVERSTRAW	0.9930		$ 631,776,639.00	$ 636,230,251	6.185%	$ 376,198.27	$ 0.59546	
			$ 631,776,639.00	$ 636,230,251	6.281%	$ 382,044.60	$ 0.60471	
	Original		$ 1,989,906,597.00	$ 10,286,209,423.38	100%	$ 6,082,160.00	$ 3.05651	
	Revised (7% reduction)		$ 1,970,419,592.75	$ 10,128,802,280.81	100%	$ 6,070,925.45	$ 3.08103	
			Levy	$ 6,082,160				
		Original		$ 0.59129	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (7% reduction)		$ 0.60048	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 7%

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax

Ramapo CSD
2007-08 Tax Rate Calc (Original Data)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
						state aid/revenues		
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
			Levy	$ 88,184,260				
				$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
			Levy	$ 2,813,106				
				$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			

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2007-08

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 1

Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 1% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 166,447,949			state aid/revenues		
Assessment Reduction @ %			1.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 1,664,479	$ 614,091,183.51	$ 4,960,348,817	95.371%	$ 84,102,392.00	$ 136.95424	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.464%	$ 3,054,288.81	$ 17.07446	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.165%	$ 1,027,579.20	$ 129.72406	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (1% reduction)		$ 800,893,042.51	$ 5,201,096,893.58	100%	$ 88,184,260.00	$ 110.10741	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (1% reduction)		$ 16.95494	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 614,091,183.51	$ 4,960,348,817	95.371%	$ 2,682,893.11	$ 4.36888	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.464%	$ 97,432.79	$ 0.54468	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.165%	$ 32,780.10	$ 4.13824	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (1% reduction)		$ 800,893,042.51	$ 5,201,096,893.58	100%	$ 2,812,854.78	$ 3.51215	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (1% reduction)		$ 0.54087	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 1%

SCHEDULE D

Ramapo CSD –Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 2

Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 2% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 166,447,949			state aid/revenues		
Assessment Reduction @ %			2.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 3,328,959	$ 612,426,704.02	$ 4,946,903,910	95.359%	$ 84,091,812.96	$ 137.30919	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.473%	$ 3,062,204.65	$ 17.11871	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.168%	$ 1,030,242.39	$ 130.06027	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (2% reduction)		$ 799,228,563.02	$ 5,187,651,986.55	100%	$ 88,184,260.00	$ 110.33672	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (2% reduction)		$ 16.99888	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 612,426,704.02	$ 4,946,903,910	95.359%	$ 2,682,555.64	$ 4.38021	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.473%	$ 97,685.30	$ 0.54609	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.168%	$ 32,865.06	$ 4.14896	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (2% reduction)		$ 799,228,563.02	$ 5,187,651,986.55	100%	$ 2,812,602.27	$ 3.51915	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (2% reduction)		$ 0.54227	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 2%

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Flight Path Area - Page 3

Ramapo CSD
2007-08 Revised Tax Rate Calc (Flight Path Assessments 3% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 166,447,949			state aid/revenues		
Assessment Reduction @ %			3.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 4,993,438	$ 610,762,224.53	$ 4,933,459,003	95.347%	$ 84,081,178.95	$ 137.66598	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.482%	$ 3,070,161.63	$ 17.16319	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.171%	$ 1,032,919.42	$ 130.39823	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (3% reduction)		$ 797,564,083.53	$ 5,174,207,079.52	100%	$ 88,184,260.00	$ 110.56699	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 17.04305	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 610,762,224.53	$ 4,933,459,003	95.347%	$ 2,682,216.41	$ 4.39159	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.482%	$ 97,939.13	$ 0.54751	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.171%	$ 32,950.46	$ 4.15974	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (3% reduction)		$ 797,564,083.53	$ 5,174,207,079.52	100%	$ 2,812,348.44	$ 3.52617	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 0.54368	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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FP 3%

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 1

Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 3% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 48,546,100			state aid/revenues		
Assessment Reduction @ %			3.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 1,456,383	$ 614,299,280.00	$ 4,962,029,725	95.373%	$ 84,103,710.76	$ 136.90999	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.462%	$ 3,053,302.03	$ 17.06894	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.165%	$ 1,027,247.21	$ 129.68215	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (3% reduction)		$ 801,101,139.00	$ 5,202,777,802.22	100%	$ 88,184,260.00	$ 110.07881	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 16.94946	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 614,299,280.00	$ 4,962,029,725	95.373%	$ 2,682,935.18	$ 4.36747	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.462%	$ 97,401.31	$ 0.54450	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.165%	$ 32,769.51	$ 4.13690	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (3% reduction)		$ 801,101,139.00	$ 5,202,777,802.22	100%	$ 2,812,886.26	$ 3.51127	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (3% reduction)		$ 0.54069	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 3%

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 2

Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 5% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 48,546,100			state aid/revenues		
Assessment Reduction @ %			5.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 2,427,305	$ 613,328,358.00	$ 4,954,187,060	95.366%	$ 84,097,550.46	$ 137.11668	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.468%	$ 3,057,911.52	$ 17.09471	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.167%	$ 1,028,798.02	$ 129.87793	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (5% reduction)		$ 800,130,217.00	$ 5,194,935,136.63	100%	$ 88,184,260.00	$ 110.21239	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (5% reduction)		$ 16.97505	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 613,328,358.00	$ 4,954,187,060	95.366%	$ 2,682,738.66	$ 4.37407	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.468%	$ 97,548.35	$ 0.54533	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.167%	$ 32,818.98	$ 4.14315	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (5% reduction)		$ 800,130,217.00	$ 5,194,935,136.63	100%	$ 2,812,739.22	$ 3.51535	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (5% reduction)		$ 0.54151	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 5%

SCHEDULE D

Ramapo CSD – Calculation of Real Property Tax
and
Revised Calculation of Real Property Tax
Increased Noise Area - Page 3

Ramapo CSD
2007-08 Revised Tax Rate Calc (Inc Noise Assessments 7% Reduction)

SCHOOL DISTRICT:		SCHOOL TAX LEVY COMPUTATION FOR			2007-08	tax levy	88,184,260	using 07-08 equalization rates
					Ramapo CSD	library levy	2,813,106	
Summary AV of properties within Flight Path			$ 48,546,100			state aid/revenues		
Assessment Reduction @ %			7.0%					
STEP 1: Obtain information from municipalities.								
Ramapo CSD			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 84,112,916.48	$ 136.60113	
Assessment Reduction of:		$ 3,398,227	$ 612,357,436.00	$ 4,946,344,394	95.359%	$ 84,091,371.52	$ 137.32400	
HAVERSTRAW	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 3,046,413.78	$ 17.03043	
			$ 178,880,590.00	$ 180,141,581	3.473%	$ 3,062,534.96	$ 17.12055	
TUXEDO	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 1,024,929.74	$ 129.38959	
			$ 7,921,269.00	$ 60,606,496	1.168%	$ 1,030,353.52	$ 130.07430	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 88,184,260.00	$ 109.87905	
	Revised (7% reduction)		$ 799,159,295.00	$ 5,187,092,471.04	100%	$ 88,184,260.00	$ 110.34629	
			Levy	$ 88,184,260				
		Original		$ 16.91122	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (7% reduction)		$ 17.00071	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			
Finklestein Memorial Library			Total Municipal	Full Value	Full Value	Dollar	Tax Rate per Thousand	
Municipal Name	Equalization		Tot. Assessed Val.		Allocation	Allocation	On Assessed Value	
	Rate							
RAMAPO	0.1238		$ 615,755,663.00	$ 4,973,793,724	95.383%	$ 2,683,228.84	$ 4.35762	
			$ 612,357,436.00	$ 4,946,344,394	95.359%	$ 2,682,541.55	$ 4.38068	
CLARKSTOWN	0.9930		$ 178,880,590.00	$ 180,141,581	3.455%	$ 97,181.57	$ 0.54328	
			$ 178,880,590.00	$ 180,141,581	3.473%	$ 97,695.84	$ 0.54615	
HAVERSTRAW	0.1307		$ 7,921,269.00	$ 60,606,496	1.162%	$ 32,695.59	$ 4.12757	
			$ 7,921,269.00	$ 60,606,496	1.168%	$ 32,868.61	$ 4.14941	
	Original		$ 802,557,522.00	$ 5,214,541,800.61	100%	$ 2,813,106.00	$ 3.50518	
	Revised (7% reduction)		$ 799,159,295.00	$ 5,187,092,471.04	100%	$ 2,812,591.73	$ 3.51944	
			Levy	$ 2,813,106				
		Original		$ 0.53947	TAX RATE PER THOUSAND (ON FULL VALUE)			
		Revised (7% reduction)		$ 0.54233	REVISED TAX RATE PER THOUSAND (ON FULL VALUE)			

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IncNoise 7%