PHILADELPHIA INTERNATIONAL AIRPORT

FAR PART 150 NOISE COMPATIBILITY STUDY

FINAL

June 2002

Prepared by Landrum & Brown Team These maps, the Existing (2001) and Future (2006) Noise Exposure Maps; the Noise Compatibility Program (NCP); and accompanying documentation for Philadelphia International Airport, are submitted in accordance with Part 150 of the Federal Aviation Regulations (14 CFR 150). To the best of my knowledge and belief, the Existing (2001) and Future (2006) Noise Exposure Maps were prepared with the best available information and on the basis of reasonable assumptions and are hereby certified as true, complete, and representative of existing and future aircraft noise levels.

I also hereby certify that interested persons have been afforded adequate opportunity to submit their view, data, and comments concerning the correctness and adequacy of the draft noise exposure maps and descriptions of forecast aircraft operations; and on the formulation and adequacy of the Noise Compatibility Program and accompanying documentation. A copy of all written comments received during development of the Noise Exposure Maps and the Noise Compatibility Program is included in this document.

Date_____

Charles J. Isdell, Jr. Director of Aviation Philadelphia International Airport City of Philadelphia

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

		Yes/No/NA	Page No.\Other Reference
Ι.	IDENTIFICATION AND SUBMISSION OF MAP DOCUMENT:A. Is this submittal appropriately identified as one of the following, submitted under FAR		
	Part 150: 1. a NEM only	No	N/A
	2. a NEM and NCP	Yes	Letter of Transmittal,
	 a revision to NEMs which have previously been determined by FAA to be in compliance with Part 150? 	No	N/A
	B. Is the airport name and the qualified airport operator identified?	Yes	Letter of Transmittal
	C. Is there a dated cover letter from the airport operator which indicates the documents are submitted under Part 150 for appropriate FAA determinations?	Yes	Letter of Transmittal
II.	CONSULTATION: [150.21(b), A150.105(a)]A. Is there a narrative description of the consultation accomplished, including opportunities for public review and comment during map development?	Yes	Appendix H, I & J, Chapter 1, Page 1-6
	B. Identification:1. Are the consulted parties identified?	Yes	Appendix H, I & J
	2. Do they include all those required by 150.21(b) and A150.105(a)?	Yes	Appendix H, I & J
	C. Does the documentation include the airport operator's certification, and evidence to support it, that interested persons have been afforded adequate opportunity to submit their views, data, and comments during map development and in accordance with 150.21(b)?	Yes	Sponsor's Certificate, Appendix H, I & J
	D. Does the document indicate whether written comments were received during consultation and, if there were comments, that they are on file with the FAA region?	Yes	Appendix I

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

	Yes/No/NA	Page No.\Other Reference
III. GENERAL REQUIREMENTS: [150.21]	103/110/11/4	
A. Are there two maps, each clearly labeled on the face with year (existing condition year and 5-year)?	Yes	Exhibits NEM-1 & NEM-2
 B. Map currency: 1. Does the existing condition map year match the year on the airport operator's submittal letter? 	Yes	Letter of Transmittal & Exhibit NEM-1
 Is the 5-year map based on reasonable forecasts and other planning assumptions and is it for the fifth calendar year after the year of submission? 	Yes	Letter of Transmittal, Appendix C
 If the answer to 1 and 2 above is no, has the airport operator verified in writing that data in the documentation are representative of existing condition and 5-year forecast conditions as of the date of submission? 	N/A	N/A
 C. If the NEM and NCP are submitted together: 1. Has the airport operator indicated whether the 5-year map is based on 5- year contours without the program vs. contours if the program is implemented? 	Yes	Letter of Transmittal & Chapter 4
2. If the 5-year map is based on program		
implementation: a. are the specific program measures which are reflected on the map identified:	Yes	Chapter 4
 b. does the documentation specifically describe how these measures affect land use compatibilities depicted on the map? 	Yes	Chapter 4
3. If the 5-year NEM does not incorporate program implementation, has the airport operator included an additional NEM for FAA determination after the program is approved which shows program implementation conditions and which is intended to replace the 5-year NEM as the new official 5-year plan?	N/A	N/A

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

		Page No.\Other
IV. MAP SCALE, GRAPHICS, AND DATA	Yes/No/NA	Reference
REQUIREMENTS: [A150.101, A150.103, A150.105, 150.21(a)]		
A. Are the maps of sufficient scale to be clear and readable (they must not be less than 1" to 8,000'), and is the scale indicated on the maps?	Yes	Exhibits NEM-1 & NEM-2
B. Is the quality of the graphics such that required information is clear and readable?	Yes	Exhibits NEM-1 & NEM-2
 C. Depiction of the airport and its environs. 1. Is the following graphically depicted to scale on both the existing condition and 5-year maps: 		
a. airport boundaries	Yes	Exhibits NEM-1 & NEM-2
 b. runway configurations with runway end numbers 	Yes	Exhibits NEM-1 & NEM-2
 Does the depiction of the off-airport data include: 	No.	
a. a land use base map depicting streets and other identifiable geographic features	Yes	Exhibits NEM-1 & NEM-2
b. the area within the 65 Ldn (or beyond, at local discretion)	Yes	Exhibits NEM-1 & NEM-2
c. clear delineation of geographic boundaries and the names of all jurisdictions with planning and land use control authority within the 65 Ldn (or beyond, at local discretion)	Yes	Exhibits NEM-1 & NEM-2
D. 1. Continuous contours for at least the Ldn 65, 70, and 75?	Yes	Exhibits NEM-1 & NEM-2
 Based on current airport and operational data for the existing condition year NEM, and forecast data for the 5-year NEM? 	Yes	Exhibits NEM-1 & NEM-2
E. Flight tracks for the existing condition and 5- year forecast time frames (these may be on supplemental graphics which must use the same land use base map as the existing condition and 5-year NEM), which are numbered to correspond to accompanying narrative?	Yes	Exhibits C-6 & C-7

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

		Page No.\Other
	Yes/No/NA	Reference
F. Locations of any noise monitoring sites (these may be on supplemental graphics which must use the same land use base map as the official NEMs)	Yes	Exhibit B-1
 G. Noncompatible land use identification: 1. Are noncompatible land uses within at least the 65 Ldn depicted on the maps? 	Yes	Exhibits NEM-1 & NEM-2
Are noise sensitive public buildings identified?	Yes	Appendix D
 Are the noncompatible uses and noise sensitive public buildings readily identifiable and explained on the map legend? 	Yes	Appendix D
 Are compatible land uses, which would normally be considered noncompatible, explained in the accompanying narrative? 	N/A	N/A
 V. NARRATIVE SUPPORT OF MAP DATA: [150.21(a), A150.1, A150.101, A150.103] A. 1. Are the technical data, including data sources, on which the NEMs are based adequately described in the narrative? 	Yes	Chapter 2 & Appendix C
Are the underlying technical data and planning assumptions reasonable?	Yes	Chapter 2 & Appendix C
B. Calculation of Noise Contours:1. Is the methodology indicated?a. is it FAA approved?	Yes	Appendix C
b. was the same model used for both maps?	Yes	Appendix C
c. has AEE approval been obtained for use of a model other than those which have previous blanket FAA approval?	N/A	N/A
 Correct use of noise models: a. does the documentation indicate the airport operator has adjusted or calibrated FAA-approved noise models or substituted one aircraft type for another? 	No	Appendix C
 b. if so, does this have written approval from AEE? 	N/A	N/A

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

	Yes/No/NA	Page No.\Other Reference
 If noise monitoring was used, does the narrative indicate that Part 150 guidelines were followed? 	Yes	Appendix B
 4. For noise contours below 65 Ldn, does the supporting documentation include explanation of local reasons? (Narrative explanation is highly desirable but not required by the Rule.) 	N/A	N/A
 C. Noncompatible Land Use Identification: 1. Does the narrative give estimates of the number of people residing in each of the contours (Ldn 65, 70 and 75, at a minimum) for both the existing condition and 5-year maps? 	Yes	Chapter 2
 Does the documentation indicate whether Table 1 of Part 150 was used by the airport operator? 	Yes	Appendix B, Table B-1
a. If a local variation to Table 1 was	N/A	N/A
used: (1) does the narrative clearly indicate which adjustments were made and the local reasons for doing so?	N/A	N/A
(2) does the narrative include the airport operator's complete substitution for Table 1?	N/A	N/A
 Does the narrative include information on self-generated or ambient noise where compatible/noncompatible land use identifications consider non- airport/aircraft sources? 	N/A	N/A
4. Where normally noncompatible land uses are not depicted as such on the NEMs, does the narrative satisfactorily explain why, with reference to the specific geographic areas?	Yes	Chapter 2 & Appendix C
5. Does the narrative describe how forecasts will affect land use compatibility?	Yes	Chapter 2 & Appendix C

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Philadelphia International Airport

REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
 VI. MAP CERTIFICATIONS: [150.21(b), 150.21(e)] A. Has the operator certified in writing that interested persons have been afforded adequate opportunity to submit views, data, and comments concerning the correctness and adequacy of the draft maps and forecasts? 	Yes	Sponsor's Certificate
B. Has the operator certified in writing that each map and description of consultation and opportunity for public comment are true and complete?	Yes	Sponsor's Certificate

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NOISE COMPATIBILITY PROGRAM CHECKLIST -- PART II

AIRPORT NAME: Philadelphia International Airport

		Yes/No/NA	Page No.\Other Reference
١.	IDENTIFICATION AND SUBMISSION OF PROGRAM:		101010100
	A. Submission is properly identified: 1. FAR 150 NCP?	Yes	Letter of Transmittal
	2. NEM and NCP together?	Yes	Letter of Transmittal
	3. Program revision?	No	N/A
	B. Airport and Airport Operator's name identified?	Yes	Letter of Transmittal
	C. NCP transmitted by airport operator cover letter?	Yes	Letter of Transmittal
II.	CONSULTATION: [150.23] A. Documentation includes narrative of public participation and consultation process?	Yes	Chapter 1, page 1-6 Appendix H, I & J
	B. Identification of consulted parties:1. all parties in 150.23(c) consulted?	Yes	Chapter1, page 1-6, Appendix H, I & J
	2. public and planning agencies identified?	Yes	Appendix H
	agencies in 2., above, correspond to those indicated on the NEM?	Yes	Exhibits NEM-1 & NEM-2
	 C. Satisfies 150.23(d) requirements: 1. documentation shows active and direct participation of parties in B., above? 	Yes	Appendix H, I & J
	2. active and direct participation of general public?	Yes	Appendix H, I & J
	participation was prior to and during development of NCP and prior to submittal to FAA?	Yes	Appendix H, I & J
	 indicates adequate opportunity afforded to submit views, data, etc.? 	Yes	Appendix H, I & J
	D. Evidence included of notice and opportunity for a public hearing on NCP?	Yes	Appendix I
	E. Documentation of comments:1. includes summary of public hearing comments, if hearing was held?	Yes	Appendix I
	2. includes copy of all written material submitted to operator?	Yes	Appendix H, I & J

NOISE COMPATIBILITY PROGRAM CHECKLIST -- PART II

AIRPORT NAME: Philadelphia International Airport

es/No/NA Yes Yes	Reference Appendix I
	Appendix I
Ves	
163	Letter of Transmittal
Yes	Attached to Checklist, Exhibits NEM-1 & NEM-2; Appendix C
No	N/A
N/A	N/A
Yes	None
Yes	Attached to Checklist,
No	Exhibits NEM-1 & NEM-2 Letter of Transmittal
Yes	Appendix C, Page C-1
Yes	Appendix B
res	Attached to Checklist, Exhibits NEM-1 & NEM-2
	Yes No Yes No Yes

NOISE COMPATIBILITY PROGRAM CHECKLIST -- PART II

AIRPORT NAME: Philadelphia International Airport

REVIEWER:

		Page No.\Other
	Yes/No/NA	Reference
IV. CONSIDERATION OF ALTERNATIVES: [B150.7, 150.23(e)] A. At a minimum, are the alternatives below considered?		
 Iand acquisition and interests therein, including air rights, easements, and development rights? 	Yes	Appendix F, LU-F
 barriers, acoustical shielding, public building soundproofing 	Yes	Appendix E, NA-T,
3. preferential runway system	Yes	Appendix E, NA-D, NA-M & NA-N
4. flight procedures	Yes	Appendix E, NA-A, NA-B, NA-C, NA-F, NA-G, NA-H, NA-I, NA-J, NA-K, NA-L, NA-O, NA-P
 restrictions on type/class of aircraft (at least one restriction below must be checked) 		
a. deny use based on Federal standards	No	N/A
b. capacity limits based on noisiness	No	N/A
c. noise abatement takeoff/approach procedures	No	N/A
d. landing fees based on noise or time of day	Yes	Appendix E, NA-R
e. nighttime restrictions	Yes	Appendix E, NA-R
6. other actions with beneficial impact	Yes	Appendix E
7. other FAA recommendations	Yes	Appendix E
B. Responsible implementing authority identified for each considered alternative?	Yes	Appendix E
C. Analysis of alternative measures:1. measures clearly described?	Yes	Appendix E, F, & G
2. measures adequately analyzed?	Yes	Appendix E, F, & G
adequate reasoning for rejecting alternatives?	Yes	Appendix E, F, & G

NOISE COMPATIBILITY PROGRAM CHECKLIST -- PART II

AIRPORT NAME: Philadelphia International Airport

		Page No.\Other
	Yes/No/NA	Reference
 D. Other actions recommended by the FAA: Should other actions be added? (list separately on back of this form actions and discussions with airport operator to have them included prior to the start of the 180-day cycle) 	No	N/A
 V. ALTERNATIVES RECOMMENDED FOR IMPLEMENTATION: [150.23(e), B150.7(c); 150.35(b), B150.5] A. Document clearly indicates: alternatives recommended for implementation? 	Yes	Chapter 4
2. final recommendations are airport operator's not those of consultant or third party?	Yes	Chapter 4
 B. Do all program recommendations: 1. relate directly or indirectly to reduction of noise and noncompatible land uses? 	Yes	Chapter 4
contain description of contribution to overall effectiveness of program?	Yes	Chapter 4
noise/land use benefits quantified to extent possible?	Yes	Chapter 4
4. include actual/anticipated effect on reducing noise exposure within noncompatible area shown on NEM?	Yes	Chapter 4
5. effects based on relevant and reasonable expressed assumptions?	Yes	Chapter 4
have adequate supporting data to support its contribution to noise/land use compatibility?	Yes	Chapter 4
C. Analysis appears to support program standards set forth in 150.35(b) and B150.5?	Yes	Chapter 4
 D. When use restrictions are recommended: 1. Are alternatives with potentially significant noise/compatible land use benefits thoroughly analyzed so that appropriate comparisons and conclusions can be made? 	N/A	N/A

NOISE COMPATIBILITY PROGRAM CHECKLIST -- PART II

AIRPORT NAME: Philadelphia International Airport

REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
 Use restriction coordinated with APP- 600 prior to making determination on start of 180-days? 	N/A	N/A
E. Do the following also meet Part 150 analytical standards:1. formal recommendations which continue existing practices?	Yes	Chapter 4
2. new recommendations or changes proposed at end of Part 150 process?	Yes	Chapter 4
F. Documentation indicates how recommendations may change previously adopted plans?	Yes	Chapter 4
 G. Documentation also: 1. identifies agencies which are responsible for implementing each recommendation? 	Yes	Chapter 4
 indicates whether those agencies have agreed to implement. 	Yes	Chapter 4
 Indicates essential government actions necessary to implement recommendations. 	Yes	Chapter 4
 H. Timeframe: 1. includes agreed-upon schedule to implement alternatives? 	Yes	Chapter 4
2. indicates period covered by the program?	Yes	Chapter 4
I. Funding/Costs:1. includes costs to implement alternatives?	Yes	Chapter 4
2. includes anticipated funding sources?	Yes	Chapter 4
VI. PROGRAM REVISION: [150.23(e)(9)] Supporting documentation includes provision for revision?	N/A	N/A

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Click to view Exhibit NEM-1 2001 Noise Exposure Map

Click to view Exhibit NEM-2 2006 Noise Exposure Map/Noise Compatibility Program

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