PORT COLUMBUS INTERNATIONAL AIRPORT

FAR PART 150 NOISE COMPATIBILITY STUDY

FINAL

Volume 1 of 2

November 2007

Prepared for:

Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Prepared by:

Landrum & Brown, Incorporated
11279 Cornell Park Drive
Cincinnati, Ohio 45242

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COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

November 14, 2007

Ms. Katherine S. Jones
FAA, Great Lakes Region
Detroit Airports District Office
11677 South Wayne Road, Ste. 107
Romulus, MI 48174

Subject: Submission of Part 150 Study, Including Noise Exposure Maps and Noise Compatibility Program for Port Columbus International Airport

Dear Ms. Katy Jones:

Enclosed please find ten (10) copies of the above referenced document submitted under 14 CFR FAR Part 150 for appropriate FAA determination. The Columbus Regional Airport Authority (CRAA) requests approval of the Existing (2006) Noise Exposure Map (NEM) for existing conditions and the Future (2012) NEM with Noise Compatibility Program (NCP) implementation for the Port Columbus International Airport. The NEMs are revisions to Noise Exposure Maps (2002 NEM Update) that were previously determined by the FAA to be in compliance with Part 150.

The current year NEM is based on reasonable planning assumptions developed in this Part 150 Study. It was developed based on actual activity for periods of 2005, 2006, and 2007. Based on the latest activity data for the airport, the NEM continues to be a reasonable representation of current conditions. The future NEM/NCP for 2012, with the implementation of the NCP, is based on reasonable forecasts and planning assumptions that were prepared for this Part 150 Study, and continues to be a reasonable representation of noise conditions in the future.

The elements of the NCP have been coordinated with representatives of the agency or user groups having responsibility for implementation. While it is not practical to obtain formal agreements from every agency or group prior to this submission, each group is aware of these actions which fall within their respective jurisdictions.

On behalf of CRAA, I would like to express appreciation to the FAA for its support in conducting the Part 150 Study. We look forward to an expeditious Federal review and approval of our revised plan, so that we can begin immediately to implement the recommended measures for the benefit of the airport neighbors.

Sincerely,

Elaine

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority
Port Columbus International Airport

Port Columbus International Airport
4600 International Gateway
Columbus, Ohio 43219
Phone: 614-239-4000
Fax: 614-239-4066

Rickenbacker International Airport
7161 Second Street
Columbus, Ohio 43217
Phone: 614-491-1401
Fax: 614-491-0662

Bolton Field Airport
2000 Norton Road
Columbus, Ohio 43228
Phone: 614-851-9900
Fax: 614-851-8959

STATEMENT OF CERTIFICATION AND PUBLIC NOTIFICATION

The Existing (2006) and Future (2012) Noise Exposure Maps (NEMs); the Noise Compatibility Program (NCP); and accompanying documentation for Port Columbus 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 (2006) and Future (2012) 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 NEMs and descriptions of forecast aircraft operations; and on the formulation and adequacy of the NCP and accompanying documentation. A copy of all written comments received during development of the NEMs and the NCP is included in this document.

Elaine Roberts Date: 11-14-07

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority
Port Columbus International Airport

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
I. 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
3. a revision to NEMs which have previously been determined by FAA to be in compliance with Part 150?	Yes	Letter of Transmittal
B. Is the airport name and the qualified airport operator identified?	Yes	Letter of Transmittal, Chapter 1, page 1-1
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	Chapter 1, pages 1-7 to 1-9, Appendix G, Public Involvement
B. Identification:		
1. Are the consulted parties identified?	Yes	Chapter 1, pages 1-7 to 1-9 Appendix G
2. Do they include all those required by 150.21(b) and A150.105(a)?	Yes	Chapter 1, pages 1-7 to 1-9 Appendix G
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
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 G

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
III. GENERAL REQUIREMENTS: [150.21]		
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?	No	
2. 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	Chapter 1, page 4-5 Appendix C, page C-23
3. 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?	Yes	Letter of Transmittal & Appendix C, page C-17
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: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
IV. MAP SCALE, GRAPHICS, AND DATA 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
2. Does the depiction of the off-airport data include:		
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
2. Based on current airport and operational data for the existing condition year NEM, and forecast data for the 5-year NEM?	Yes	Letter of Transmittal, Exhibits NEM-1 & NEM-2

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
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	Appendix C Exhibits C-6, C-7, C-8, C-9, C-10, C-11, C-12, and C-13
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	Appendix B, 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
2. Are noise sensitive public buildings identified?	Yes	Exhibits NEM-1 & NEM-2, Exhibit D-1
3. Are the noncompatible uses and noise sensitive public buildings readily identifiable and explained on the map legend?	Yes	Exhibits NEM-1 & NEM-2, Exhibit 2-4, Exhibit D-1
4. 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 3, Appendix C
2. Are the underlying technical data and planning assumptions reasonable?	Yes	Chapter 3, 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

NOISE EXPOSURE MAP CHECKLIST -- PART I

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
2. 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
3. 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.)	Yes	Chapter 2
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 3
2. Does the documentation indicate whether Table 1 of Part 150 was used by the airport operator? a. If a local variation to Table 1 was used: (1) does the narrative clearly indicate which adjustments were made and the local reasons for doing so?	Yes N/A	Appendix A, Table A-1 N/A
(2) does the narrative include the airport operator's complete substitution for Table 1?	N/A	N/A
3. 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

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
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?	N/A	N/A
5. Does the narrative describe how forecasts will affect land use compatibility?	Yes	Chapter 3, page 3-4, Appendix C
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: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
I. IDENTIFICATION AND SUBMISSION OF PROGRAM:		
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?	Yes	Letter of Transmittal
B. Airport and Airport Operator's name identified?	Yes	Letter of Transmittal, Chapter 1, page 1-1
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, pages 1-7 to 1-9, Appendix G
B. Identification of consulted parties:		
1. all parties in 150.23(c) consulted?	Yes	Chapter 1, pages 1-7 to 1-9, Appendix G
2. public and planning agencies identified?	Yes	Appendix G
3. 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	Chapter 1, pages 1-7 to 1-9, Appendix G
2. active and direct participation of general public?	Yes	Chapter 1, pages 1-7 to 1-9, Appendix G
3. participation was prior to and during development of NCP and prior to submittal to FAA?	Yes	Chapter 1, pages 1-7 to 1-9, Appendix G
4. indicates adequate opportunity afforded to submit views, data, etc.?	Yes	Appendix G
D. Evidence included of notice and opportunity for a public hearing on NCP?	Yes	Chapter 1, page 1-9 Appendix G
E. Documentation of comments:		
1. includes summary of public hearing comments, if hearing was held?	Yes	Appendix G

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
2. includes copy of all written material submitted to operator?	Yes	Appendix G
3. includes operator's responses / disposition of written and verbal comments?	Yes	Appendix G will contain the responses to comments made at the public hearing.
F. Informal agreement received from FAA on flight procedures?	Yes	Letter of Transmittal
III. NOISE EXPOSURE MAPS: [150.23, B150.3; 150.35(f)] (This section of the checklist is not a substitute for the Noise Exposure Map checklist. It deals with maps in the context of the Noise Compatibility Program submission.)		
A. Inclusion of NEMs and supporting documentation: 1. Map documentation either included or incorporated by reference?	Yes	Attached to Checklist, Exhibits NEM-1 & NEM-2, Appendix C
2. Maps previously found in compliance by FAA?	Yes	Letter of Transmittal
3. Compliance determination still valid?	Yes	Letter of Transmittal
4. Does 180-day period have to wait for map compliance finding?	Yes	None
B. Revised NEMs submitted with program: (Review using NEM checklist if map revisions included in NCP submittal)		
1. Revised NEMs included with program?	Yes	Attached to Checklist, Exhibits NEM-1 & NEM-2
2. Has airport operator requested FAA to make a determination on the NEM(s) when NCP approval is made?	Yes	Letter of Transmittal

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
C. If program analysis uses noise modeling: 1. INM, HNM, or FAA-approved equivalent?	Yes	Appendix C
2. Monitoring in accordance with A150.5?	Yes	Appendix B
D. Existing condition and 5-year maps clearly identified as the official NEMs?	Yes	Attached to Checklist, Exhibits NEM-1 & NEM-2
IV. CONSIDERATION OF ALTERNATIVES: [B150.7, 150.23(e)]		
A. At a minimum, are the alternatives below considered? 1. land acquisition and interests therein, including air rights, easements, and development rights?	Yes	Appendix F, Alternative LU-A
2. barriers, acoustical shielding, public building soundproofing	Yes	Chapter 4, Measure NA-9 &NA-10, Appendix E, Alternatives NA-W & NA-X
3. preferential runway system	Yes	Appendix E, Alternatives NA-S, NA-T, & NA-U
4. flight procedures	Yes	Chapter 4 Measures NA-6 & NA-7, Appendix E, Alternatives NA-A, NA-B, NA-C, NA-E, NA-F, NA-G, NA-H, NA-I, NA-J, & NA-K
5. restrictions on type/class of aircraft (at least one restriction below must be checked) a. deny use based on Federal standards	Yes	NA-Z
b. capacity limits based on noisiness	No	N/A
c. noise abatement takeoff/approach procedures	Yes	Appendix E, Alternatives NA-A, NA-B, NA-C, NA-E, NA-F, NA-G, NA-H, NA-I, NA-J, NA-K, NA-L, NA-N, NA-O, NA-P & NA-Q
d. landing fees based on noise or time of day	No	N/A
e. nighttime restrictions	No	N/A

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
6. other actions with beneficial impact	Yes	Chapter 4; Appendix E
7. other FAA recommendations	No	N/A
B. Responsible implementing authority identified for each considered alternative?	Yes	Chapter 4
C. Analysis of alternative measures:		
1. measures clearly described?	Yes	Chapter 4, Appendixes E & F
2. measures adequately analyzed?	Yes	Chapters 4, Appendixes E & F
3. adequate reasoning for rejecting alternatives?	Yes	Appendixes E & F
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: 1. alternatives recommended for implementation?	Yes	Chapter 4
2. final recommendations are airport operator's not those of consultant or third party?	Yes	Letter of Transmittal
B. Do all program recommendations: 1. relate directly or indirectly to reduction of noise and noncompatible land uses?	Yes	Chapter 4
2. contain description of contribution to overall effectiveness of program?	Yes	Chapter 4
3. 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

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
6. 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
2. 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, pages 4-3 to 4-48 & Table 4-1
2. indicates whether those agencies have agreed to implement.	Yes	Letter of Transmittal
3. 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

NOISE COMPATIBILITY PROGRAM -- CHECKLIST -- PART II

AIRPORT NAME: Port Columbus International Airport REVIEWER: _____

	Yes/No/NA	Page No.\Other Reference
I. Funding/Costs:		
1. includes costs to implement alternatives?	Yes	Chapter 4, pages 4-3 to 4-51 & Table 4-1 and Table 4-3
2. includes anticipated funding sources?	Yes	Chapter 4
VI. PROGRAM REVISION: [150.23(e)(9)] Supporting documentation includes provision for revision?	Yes	Chapter 4, page 4-47

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GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Bexley

Whitehall

Reynoldsburg

Truro Townhsip

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

75 DNL

70 DNL

65 DNL

60 DNL

Sponsor's Certification

The Noise Exposure Maps and accompanying documentation for the Noise Exposure Map for Port Columbus International Airport submitted in accordance with F.A.R. Part 150 with the best available information, are hereby certified as true and complete to the best of my knowledge and belief.

10/10/07
Date of Signature

Elaine Roberts
Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

Legend

- Existing (2006) Baseline Noise Exposure Contour
- Existing (2006) Baseline Noise Exposure Contour - 60 DNL
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home Park
- Ag/Open Space/Park
- Airport Property Boundary
- Institutional
- Industrial
- Commercial
- Exempt
- Unclassified

0 4,000' 1 Inch = 4,000 Feet N

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/10/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\NEM-1_Existing (2006) NCP Noise Exposure Contour.mxd contour:2006_Baseline_rev5

Existing (2006) Noise Exposure Map

Exhibit: **NEM-1**

GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Bexley

Whitehall

Truro Townhsip

Reynoldsburg

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

75 DNL

70 DNL

65 DNL

60 DNL

Sponsor's Certification

The Noise Exposure Maps and accompanying documentation for the Noise Exposure Map for Port Columbus International Airport submitted in accordance with F.A.R. Part 150 with the best available information, are hereby certified as true and complete to the best of my knowledge and belief.

10/10/07
Date of Signature

Elaine Roberts
Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

Legend

- Future (2012) NEM-NCP Noise Exposure Contour
- Future (2012) NEM-NCP Noise Exposure Contour - 60 DNL
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home Park
- Ag/Open Space/Park
- Airport Property Boundary
- Institutional
- Industrial
- Commercial
- Exempt
- Unclassified

0 4,000' 1 Inch = 4,000 Feet N

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/10/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\NEM-2_Future (2012) NEM-NCP Noise Exposure Contour.mxd contour:scenario-4

Future (2012) Noise Exposure Map/Noise Compatibility Program

Exhibit:
NEM-2

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GLOSSARY

Airman's Information Manual (AIM) – A publication containing basic flight information and air traffic control (ATC) procedures, designed primarily as a pilot's information and instructional manual for use in the National Airspace System.

Airport elevation – The highest point on an airport's usable runways, expressed in feet above mean sea level (MSL).

Airport Improvement Program (AIP) – A Federal funding program for airport improvements. AIP is periodically reauthorized by Congress with funding appropriated from the Aviation Trust Fund. Proceeds to the Trust Fund are derived from excise taxes on airline tickets, aviation fuel, etc.

Airport Layout Plan (ALP) – A scaled drawing of existing and proposed land and facilities necessary for the operation and development of the airport. The ALP shows boundaries and proposed additions to all areas owned or controlled by the airport operator for airport purposes, the location and nature of existing and proposed airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon.

Airport operations – Landings (arrivals) and takeoffs (departures) from an airport.

Airport Surveillance Radar (ASR) – A radar system which allows air traffic controllers to identify an arriving or departing aircraft's distance and direction from an airport.

Airport Traffic Control Tower (ATCT) – The airport traffic control facility located on an airport that is responsible for traffic separation within the immediate vicinity of the airport and on the surface of the airport.

Air Route Traffic Control Center (ARTCC or Center) – A FAA facility established to provide air traffic control service to aircraft operating on Instrument Flight Rules (IFR) flight plans within controlled airspace during the en route portion of flight.

Air Traffic Control (ATC) – A service operated to promote the safe, orderly, and expeditious flow of air traffic.

Air Traffic Control Tower (ATCT) – A tower that has been established on an airport to provide for a safe, orderly and expeditious flow of traffic on and in the vicinity of the airport.

Ambient noise – The total sum of noise from all sources in a given place and time.

Approach Light Systems (ALS) – A series of lights that assists the pilot when aligning aircraft with the extended runway centerline on final approach.

Attenuation – Acoustical phenomenon whereby sound energy is reduced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, other natural features, and man-made features (e.g., sound insulation).

Automated Radar Terminal System (ARTS) – Computer-aided radar display subsystems capable of associating alphanumeric data – such as aircraft identification, altitude, and airspeed – with aircraft radar returns.

A-weighted sound (dBA) – A system for measuring sound energy that is designed to represent the response of the human ear to sound. Energy at frequencies more readily detected by the human ear is more heavily weighted in the measurement, while frequencies less well detected are assigned lower weights. A-weighted sound measurements are commonly used in studies where the human response to sound is the object of the analysis.

Bank – A cluster of arrivals or departures in a short period of time, characteristic of an airline hub operation.

Baseline Condition – The existing condition or conditions prior to future development or the enactment of additional noise abatement procedures, which serve as a foundation for analysis.

Building Restriction Line (BRL) – A line drawn on an airport layout plan, which distinguishes, between areas that are suitable for buildings and areas that are unsuitable. The BRL is drawn to exclude the runway protection zones, the runway visibility zones required for clear line of sight from the airport traffic control tower, and all airport areas with a clearance of less than 35 feet (10.5 meters) beneath the Federal Aviation Regulation (FAR) Part 77 surfaces.

Commuter aircraft – Commuters are commercial operators that provide regularly scheduled passenger or cargo service with aircraft seating less than 60 passengers. A typical commuter flight operates over a trip distance of less than 300 miles.

Connecting passenger – An airline passenger who transfers from an arriving aircraft to a departing aircraft in order to reach his or her ultimate destination.

Controlled airspace – Airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification. Controlled airspace is designated as Class A, Class B, Class C, Class D, or Class E. Aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements as specified in FAR Part 91, depending upon the class of airspace in which they are operating.

Crosswind leg – A flight path at right angles to the approach runway end off of its upwind end.

Day-night average sound level (DNL) – A noise measure used to describe the average sound level over a 24-hour period, typically an average day over the course of a year. In computing DNL, an extra weight of 10 decibels is assigned to noise occurring between the hours of 10:00 p.m. and 7:00 a.m. to account for increased annoyance when ambient noise levels are lower and people are trying to sleep. DNL may be determined for individual locations or expressed in noise contours.

Decibel (dB) – Sound is measured by its pressure or energy in terms of decibels. The decibel scale is logarithmic. A ten-decibel increase in sound is equal to a tenfold increase in sound energy.

DGPS antenna – Differential Global Positioning System is a way to correct the various inaccuracies in the GPA system by placing a reference antenna on a point that has been accurately surveyed. This antenna receives the same GPS signals as an aircraft but corrects the GPS signal for any inaccuracies.

Displaced Threshold – A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold may be available for takeoffs in both directions and landings from the opposite direction.

Distance measuring equipment (DME) – A flight instrument that measures the line-of-sight distance of an aircraft from a navigational radio station in nautical miles.

Double-clear zone – The double-clear zone is an area on the ground, up of land up to 1,250 feet from each side of the runway centerline and extending 5,000 feet beyond each end of the primary runway surface. It is also known as the approach transitional area for runways serving or anticipated to serve turbojet aircraft or having an existing or planned precision instrument runway.

Easement – The legal right of one party to use part of the rights of a piece of real estate belonging to another party. This may include, but is not limited to, the right of passage over, on or below the property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity.

Enplanements – The number of passengers boarding an aircraft at an airport. Does not include arriving or through passengers.

En route system – That part of the National Airspace System where aircraft are operating between origin and destination airports.

En route control – The control of IFR traffic en route between two or more adjacent approach control facilities.

Environmental Assessment (EA) – A concise document that assesses the environmental impacts of a proposed Federal Action. It discusses the need for, and environmental impacts of, the proposed action and alternatives. An environmental assessment should provide sufficient evidence and analysis for a Federal determination whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). Public participation and consultation with other Federal, state, and local agencies is a cornerstone of the EA process.

Environmental Impact Statement (EIS) – An EIS is a document that provides a discussion of the significant environmental impacts which would occur as a result of a proposed project, and informs decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts. Public participation and consultation with other Federal, state, and local agencies is a cornerstone of the EIS process.

Equivalent sound level (Leq) – The average A-weighted sound level over any specified time period.

Federal Aviation Administration (FAA) – The FAA is the Federal agency responsible for insuring the safe and efficient use of the nation's airspace, for fostering civil aeronautics and air commerce, and for supporting the requirements of national defense. The activities required to carry out these responsibilities include: safety regulations; airspace management and the establishment, operation, and maintenance of a system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

Federal Aviation Regulations (FAR) – The body of Federal regulations relating to aviation. Published as Title 14 of the Code of Federal Regulations.

Final approach – A flight path that follows the extended runway centerline. It usually extends from the base leg to the runway.

Finding of No Significant Impact (FONSI) – If, following the preparation of an environmental assessment, the Federal agency determines a proposed project will not result in any significant environmental impact, a finding of no significant impact (FONSI) is issued by the Federal Agency. A FONSI is a document briefly explaining the reasons why an action will not have a significant effect on the human environment and for which an EIS, therefore, is not necessary.

Fixed-base operator (FBO) – A business located on the airport that provides services such as hangar space, fuel, flight training, repair, and maintenance to airport users.

Flight track utilization – The use of established routes for arrival and departure by aircraft to and from the runways at the airport.

FMS/GPS – Flight Management System/Global Positioning System equipment onboard an aircraft takes advantage of various radio navigation and/or GPS routes to guide the aircraft.

Glide slope (GS) – Provides vertical guidance for aircraft during approach and landing. The glide slope consists of the following:

Electronic components emitting signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as ILS, or

Visual ground aids, such as VASI, which provide vertical guidance for VFR approach or for the visual portion of an instrument approach and landing.

Geographic Information Systems (GIS) – An information system that is designed for storing, integrating, manipulating, analyzing, and displaying data referenced by spatial or geographic coordinates.

Global Positioning System (GPS) – A system of 24 satellites used as reference points to enable navigators equipped with GPS receivers to determine their latitude, longitude, and altitude. The accuracy of the system can be further refined by using a ground receiver at a known location to calculate the error in the satellite range data. This is known as differential GPS (DGPS).

Grid analysis – A type of aircraft noise analysis that evaluates the noise levels at individual points rather than through generation of noise contours.

Ground effect – Noise attenuation attributed to absorption or reflection of noise by man-made or natural features on the ground surface.

Hub – An airport that services airlines that have hubbing operations.

Hubbing – A method of airline scheduling that times the arrival and departure of several aircraft in a close period of time in order to allow the transfer of passengers between different flights of the same airline in order to reach their ultimate destination. Several airlines may conduct hubbing operations at an airport.

Infill – Urban development occurring on vacant lots in substantially developed areas. May also include the redevelopment of areas to a greater density

Instrument approach – A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually.

Instrument flight rules (IFR) – That portion of the Federal Aviation Regulations (14 CFR 91) specifying the procedures to be used by aircraft during flight in Instrument Meteorological Conditions. These procedures may also be used under visual conditions and provide for positive control by ATC. (See also VFR).

Instrument Landing System (ILS) – An electronic system installed at some airports which helps to guide pilots to runways for landing during periods of limited visibility or adverse weather.

Instrument meteorological conditions (IMC) – Weather conditions expressed in terms of visibility, distance from clouds, and cloud ceilings during which all aircraft are required to operate using instrument flight rules (IFR).

Integrated Noise Model (INM) – A computer model developed, updated and maintained by the FAA to predict the noise exposure generated by aircraft operations at an airport.

Knots – Airspeed measured as the distance in nautical miles (6,076.1 feet) covered in one hour. (Approximately equal to 1.15 miles per hour.)

Land and Hold Short Operations (LAHSO) – An air traffic control procedure intended to increase overall airport capacity without compromising safety. LAHSO include landing and holding short of an intersecting runway, taxiway, or some other designated point on a runway or taxiway.

Land use compatibility – The ability of land uses surrounding the airport to coexist with airport-related activities with minimum conflict.

Landing and takeoff (LTO) cycle – The time that an aircraft is in operation at or near an airport. An LTO cycle begins when an aircraft starts its final approach (arrival) and ends after the aircraft has made its climb-out (departure).

Ldn – See **DNL**. Ldn is used in place of DNL in mathematical equations only.

Leq – Equivalent Sound Level. The steady A-weighted sound level over any specified period of time (not necessarily 24 hours) that has the same acoustic energy as the fluctuating noise during that period (with no consideration of nighttime weighting). It is a measure of cumulative acoustical energy. Because the time interval may vary, it should be specified by a subscript (such as Leq_8 for an 8-hour exposure to noise) or be clearly understood from the context.

Local passenger – A passenger who either enters or exits a metropolitan area on flights serviced by the area's airport. A local passenger is the opposite of a connecting passenger.

Localizer – The component of an ILS which provides lateral course guidance to the runway.

Loudness – The subjective assessment of the intensity of sound.

Mean sea level (MSL) – The average height of the surface of the sea for all stages of the tide; used as a reference for elevations. Also called sea level datum.

Merge – Combining noise events that exceed a given threshold level and occur within a selected period of time.

Missed approach – A prescribed procedure to be followed by aircraft that cannot complete an attempted landing at an airport.

Narrow-body aircraft – A commercial passenger jet having a single aisle and maximum of three seats on each side of the aisle. Common narrow-body aircraft include A320, B717, B727, B737, B757, DC9, MD80, and MD90.

National Airspace System (NAS) – The common network of U.S. airspace; air navigation facilities, equipment, services, airports, or landing areas; aeronautical charts, information, and services; rules, regulations, and procedures; technical information, manpower, and materials, all of which are used in aerial navigation.

National Environmental Policy Act of 1969 **(NEPA)** – The original legislation establishing the environmental review process for proposed Federal actions.

Nautical mile – A measure of distance equal to one minute of arc on the earth's surface (6,076.1 feet or 1,852 meters).

NAVAIDs (Navigational Aids) – Any facility used by an aircraft for navigation.

Navigational fix – A geographical position determined by reference to one or more radio navigational aids.

Noise abatement – A measure or action that minimizes the amount of impact of noise on the environs of an airport. Noise abatement measures include aircraft operating procedures and use or disuse of certain runways or flight tracks.

Noise berm – A manmade soil structure designed to interrupt the direct transmission of noise from a source to a noise-sensitive area.

Noise contour map – A map representing average annual noise levels summarized by lines connecting points of equal noise exposure.

Noise Compatibility Program (NCP) – Program developed in accordance with FAR Part 150 guidance that contains provisions for the abatement of aircraft noise through aircraft operating procedures, air traffic control procedures, or airport facility modifications. It also includes provisions for land use compatibility planning and may include actions to mitigate the impact of noise on incompatible land uses and recommendations for amending local land use controls to affect future land uses and development. The program must contain provisions for updating and periodic revision.

Noise Compatibility Study – The process, methods, and procedures provided in the FAR Part 150 guidance to develop a Noise Compatibility Program, including the development of noise exposure maps, a noise compatibility program, and public participation.

Noise Exposure Map (NEM) – A geographic depiction of an airport, its noise contours for existing conditions and as forecast for five years in the future, and surrounding area developed in accordance with FAR Part 150 guidance. Documentation of the Noise Exposure Maps must include airport operating characteristics for existing conditions and all reasonable and foreseeable airport operating characteristics for the future condition.

Nondirectional beacon (NDB) – A beacon transmitting nondirectional signals whereby the pilot of an aircraft equipped with direction finding equipment can determine his bearing to and from the station. When the radio beacon is installed in conjunction with the ILS marker, it is normally called a compass locator.

Nonprecision approach – A standard instrument approach procedure providing runway alignment but no glide slope or descent information.

Operation – A takeoff or landing by an aircraft.

Outer fix – An air traffic control term for a point in the airspace from which aircraft are normally cleared to the approach fix or final approach course.

Positive control – The separation of all air traffic within designated airspace as directed by air traffic controllers.

Precision Approach Path Indicator (PAPI) – Provides visual approach slope guidance to aircraft during an approach. It is similar to a VASI but provides a sharper transition between the colored indicator lights.

Precision Approach Procedure – A standard instrument approach procedure in which an electronic glide slope/glide path is provided (e.g., ILS and PAR***).***

Precision Approach Radar (PAR) – Navigational equipment located on the ground adjacent to the runway, and consisting of one antenna, which scans the vertical plane, and a second antenna, which scans the horizontal plane. The PAR provides the controller with a picture of the descending aircraft in azimuth, distance, and elevation, permitting an accurate determination of the aircraft's alignment relative to the runway centerline and the glide slope.

Primary Commercial Service Airport – A commercial airport which enplanes 0.01 percent or more of the total annual U.S. enplanements.

Primary Runway – The runway on which the majority of operations take place.

Profile – The position of the aircraft during an approach or departure in terms of altitude above the runway and distance from the runway end.

Propagation – Sound propagation is the spreading or radiating of sound energy from the noise source. It usually involves a reduction in sound energy with increased distance from the source. Atmospheric conditions, terrain, natural objects, and manmade objects affect sound propagation.

Public use airport – An airport open to public use without prior permission, and without restrictions within the physical capabilities of the facility. It may or may not be publicly owned.

Reliever airport – An airport which, when certain criteria are met, relieves the aeronautical demand on a busier air carrier airport.

Retrofitted aircraft – An aircraft originally certified as Stage 2 and has been modified to meet Stage 3 requirements. This includes both modification of engines or the replacement of engines to meet the Stage 3 standard.

Run-up – A routine procedure for testing aircraft systems by running one or more engines at a high power setting. Engine run-ups are normally conducted by airline maintenance personnel checking an engine or other on board systems following maintenance.

Runway End Identifier Lights (REIL) – Two synchronized flashing lights, one on each side of the runway threshold, which identify the approach end of the runway.

Runway Protection Zone (RPZ) – An area, trapezoidal in shape and centered about the extended runway centerline, designated to enhance the safety of aircraft operations. It begins 200 feet (60 M) beyond the end of the area usable for takeoff or landing. The RPZ dimensions are functions of the aircraft, type of operation and visibility minimums. (Formerly known as the clear zone).

Runway Safety Area (RSA) – A defined surface surrounding the runway prepared or suitable for reducing the risk or damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

Runway threshold – The beginning of that portion of the runway usable for landing.

Runway use program – A noise abatement runway selection plan crafted to further noise abatement efforts for communities around airports. A runway selection plan is developed into a runway use program. It typically applies to all turbojet aircraft 12,500 pounds or heavier. Turbojet aircraft less than 12,500 pounds are included only if the airport proprietor determines that the aircraft creates a noise problem. These programs are coordinated with the FAA in accordance with FAA Order 8400.9, *National Safety and Operational Criteria for Runway Use Programs*, and are administered as either "formal" or "informal" programs.

Runway use program (formal) – An approved runway use program outlined in a Letter of Understanding between the FAA–Flight Standards, FAA–Air Traffic Service, the airport proprietor, and the users. It is mandatory for aircraft operators and pilots as provided for in FAR Section 91.87.

Runway use program (informal) – An approved runway use program that does not require a Letter of Understanding. Participation in the program by aircraft operators and pilots is voluntary.

Single event – One noise event. For many kinds of analysis, the sound from single events is expressed using the Sound Exposure Level (SEL) metric.

Slant-range distance – The distance along a straight line between an aircraft and a point on the ground.

Sound – Sound is the result of vibration in the air. The vibration produces alternating bands of relatively dense and sparse particles of air, spreading outward from the source in the same way as ripples do on water after a stone is thrown into it. The result of the movement is fluctuation in the normal atmospheric pressure or sound waves.

Sound exposure level (SEL) – A standardized measure of a single sound event, expressed in A-weighted decibels, that takes into account all sound above a specified threshold set at least 10 decibels below the maximum level. All sound energy in the event is integrated over one second.

Special Use Airspace – Airspace of defined dimensions identified by an area on the earth's surface wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations, which are not part of those activities.

Stage 2 aircraft – Aircraft that meet the noise levels prescribed by FAR Part 36, which is less stringent than those, established for the quieter Stage 3 designation. The Airport Noise and Capacity Act required the phase-out of all Stage 2 aircraft over 75,000 pounds by December 31, 1999, with the potential for case-by-case exceptions through the year 2003.

Stage 3 aircraft – Aircraft that meet the most stringent noise levels set in FAR Part 36.

Standard instrument departure procedure (SID) – A planned IFR air traffic control departure procedure published for pilot use in graphic and textual form. SIDs provide transition from the terminal to the en route air traffic control structure.

Standard terminal arrival route (STAR) – A planned IFR air traffic control arrival procedure published for pilot use in graphic and textual form. STARs provide transition from the en route air traffic control structure to an outer fix or an instrument approach fix in the terminal area.

Statute mile – A measure of distance equal to 5,280 feet.

TACAN – Tactical Air Navigation. A navigational system used by the military. TACAN provides both azimuth and distance information to a receiver on board an aircraft.

Terminal Radar Approach Control (TRACON) – An FAA Air Traffic Control Facility which uses radar and two-way communication to provide separation of air traffic within a specified geographic area in the vicinity of one or more airports.

Terminal Radar Service Area (TRSA) – Airspace surrounding certain airports where ATC provides radar vectoring, sequencing, and separation on a full-time basis for all IFR and participating VFR aircraft.

Through passenger – An airline passenger who arrives at an airport and departs without deplaning the aircraft.

Time Above (TA) – The amount of time that sound exceeds a given decibel level during a 24-hour period (e.g., time in minutes that the sound level is above 75 dBA).

Touchdown Zone Lighting (TDZ) – A system of two rows of transverse light bars located symmetrically about the runway centerline, usually at 100-foot intervals and extending 3,000 feet along the runway.

Traffic pattern – The traffic flow for aircraft landing and departure at an airport. Typical components of the traffic pattern include: upwind leg, crosswind leg, downwind leg, base leg, and final approach.

UNICOM – A nongovernment communication facility, which may provide airport information at certain airports. Aeronautical charts and publications show the locations and frequencies of UNICOMs.

Upwind Leg – A flight path parallel to the approach runway in the direction of approach.

Vector – Compass heading instructions issued by ATC in providing navigational guidance by radar.

Very High Frequency Omnidirectional Range (VOR) Station – A ground-based radio navigation aid transmitting signals in all directions. A VOR provides azimuth guidance to pilots by reception of electronic signals.

Very High Frequency Omnidirectional Range Station with Tactical Air Navigation (VORTAC) - A navigational aid providing VOR azimuth and TACAN distance measuring equipment (DME) at one site.

Visual approach – An approach conducted on an IFR flight plan, which authorizes the pilot to proceed visually and clear of clouds to the airport.

Visual approach slope indicator (VASI) – A visual aid to final approach to the runway threshold, consisting of two wing bars of lights on either side of the runway. Each bar produces a split beam of light – the upper segment is white, the lower is red.

Visual flight rules (VFR) – Rules and procedures specified in 14 CFR 91 for aircraft operations under visual conditions. Aircraft operations under VFR are not generally under positive control by ATC. The term VFR is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate a type of flight plan.

Visual meteorological conditions (VMC) – Weather conditions expressed in terms of visibility, distance from cloud, and cloud ceiling equal to or greater than those specified in 14 CFR 91.155 for aircraft operations under Visual Flight Rules (VFR).

Wide-body aircraft - A commercial jet with a wingspan generally greater than 155 feet and, in passenger configuration, having two aisles with 8 to 11 seats across in a row. Common wide-body aircraft include the A300, A310, B747, B767, B777, DC-10, and MD-11.

Yearly Day-Night Average Sound Level – see DNL

APPENDIX A
FAA POLICIES, GUIDANCE, AND REGULATIONS

A.1 NOISE CONTROL POLICIES AND GUIDANCE

The Federal Aviation Administration (FAA) has promulgated a series of regulations based on directions from Congress as provided in a series of authorizing statutes. Four separate Federal Aviation Regulations (FAR) have been developed to specifically address permissible aircraft noise levels, operating procedures and studies of aircraft noise levels. These regulations apply to activity within the U.S. Additionally, the International Civil Aviation Organization (ICAO) has developed and accepted similar regulations which control the noise levels generated by aircraft operating in international airspace.

A.1.1 FEDERAL AVIATION REGULATION (FAR) PART 36

FAR Part 36 sets forth noise levels that are permitted for aircraft of various weights, engine number, and date of certification. Originally released in 1974 as a result of Congress' modification of the Federal Aviation Act of 1958 through the Noise Control Act of 1972, aircraft were divided into three classes, based on the amount of noise they produced at three specific noise measurement locations during certification testing. These classes (or stages) were:

Stage 1 – the oldest and loudest aircraft, typically of the first generation of jets, designed before 1974, and having measured noise levels that exceed the standards set for the other classes of aircraft. This group included many of the first generation of jet aircraft used in passenger and cargo service, including the B-707, early B-727 and B-737 aircraft, and early DC-8s. Under FAR Part 91, all such aircraft weighing more than 75,000 pounds were removed from the U.S. operating fleet by 1985, unless modified to meet Stage 2 noise standards.

Stage 2 – aircraft that were type certified before November 15, 1975 that met noise levels defined by the FAA at takeoff, sideline, and approach measurement locations. The permissible amount of noise increased with the weight of the aircraft above 75,000 pounds and the number of engines. This category included many of the second-generation jet aircraft such as the B-727, B-737-200, and DC-9 that were extensively used in passenger and cargo service. Under FAR Part 91, all such aircraft weighing more than 75,000 pounds were removed from the U.S. operating fleet by 2000, unless modified to meet Stage 3 noise standards.

Stage 3 – aircraft that meet the most stringent noise level requirements at takeoff, sideline, and approach measurement locations for their weight and engine number. This category includes the great majority of active business jet aircraft and all aircraft in passenger and cargo service that weigh more than 75,000 pounds.

Although discussions have taken place on establishing more restrictive noise levels, no action had been taken by the end of 2005 to establish a phase out schedule for Stage 3 aircraft.

Stage 4 – all jet and transport-category airplanes with a maximum take-off weight of 12,500 pounds or more for which application of a new type design is submitted on or after January 1, 2006.

The FAA's final FAR Part 36 Stage 4 noise levels are a cumulative 10 EPNdB (effective perceived noise level in decibels) less than the current Stage 3 limits. They are based on the work of the International Civil Aviation Organization's committee on aviation environmental protection, in which the FAA and the International Business Aviation Council are active members.

All business jets currently manufactured meet Stage 3 limits (by law), and nearly all would qualify to be recertified to meet Stage 4. Although the proposal doesn't contain a Stage 4 retrofit requirement and the FAA said it has no plans to impose such a requirement, one of the committee's recommendations called for a phase-out of Stage 3 airplanes with a maximum take-off weight of more than 75,000 pounds by 2020.

A.1.2 FAR PART 91

FAR Part 91, as applied to noise, established schedules for phasing louder equipment out of the operating fleet of aircraft weighing more than 75,000 pounds. The schedules called for all Stage 1 aircraft over 75,000 pounds to be removed from the fleet by 1982, with the exception of two engine aircraft in small city service, which were allowed to continue in service until 1985. The schedule for the retirement of Stage 2 aircraft called for the removal of all such aircraft by the end of 1999, with interim retirement dates of 1994, 1996, and 1998 for the removal of portions of the Stage 2 fleet.

No retirement schedules have been imposed for aircraft weighing less than 75,000 pounds.

A.1.3 FAR PART 150

FAR Part 150 sets forth the standards under which a Part 150 Noise Compatibility Study is conducted. The background and requirements for such studies are presented in Chapter One, *Background*, of this document. Notably, the preparation of a Noise Compatibility Program (NCP) under FAR Part 150 is a voluntary action by an airport proprietor. The process of preparing the plan is intended to open/enhance lines of communication between the airport, its neighbors and users. It is the only mechanism to provide for the mitigation of aircraft noise impacts on noise-sensitive surrounding areas that is not directly tied to airfield development or airspace utilization conducted subject to the rules for preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA).

Through Fiscal Year 2003, airports receiving Federal Airport Improvement Program (AIP) grant monies as a result of approved Part 150 NCPs, completed since 1982, have received grants totaling more than $3.5 billion for the implementation of Part 150 NCP recommendations. Additionally, another $2.7 billion has been committed to noise mitigation actions funded by Passenger Facility Charges (PFCs) authorized for collection for as many as 49 years into the future at different airports.

A.1.4 FAR PART 161

FAR Part 161 was published in 1991, subsequent to passage of the Airport Capacity and Noise Act of 1990 (ACNA). That act established the requirement and schedule for the phase out of Stage 2 aircraft over 75,000 pounds. In return for that action, Congress severely restricted the ability of local communities to impose actions that would restrict the aircraft access to any airport. Different levels of requirements were established for voluntary restrictions, restrictions on Stage 2 aircraft, and restrictions on Stage 3 aircraft. These requirements are applicable to all aircraft except propeller-driven aircraft weighing less than 12,500 pounds, supersonic aircraft, and Stage 1 aircraft.

A.1.4.1 Restrictive Agreements

Subpart B of FAR Part 161 sets notification requirements for the implementation of Stage 3 restrictions through agreements between airport operators and all affected airport users. (Presumably, this same procedure would be followed for implementing agreements for Stage 2 restrictions.) Before going into effect, notice of these proposed agreements must be published in local newspapers of area wide circulation, posted prominently at the airport, and sent directly to all regular airport users; the FAA; Federal, state, and local agencies with land use control authority; community groups and business organizations; and any aircraft operators that are known to be interested in providing service to the airport (new entrants). After this notification period, the agreement can be implemented if all current users and any new entrants proposing to serve the airport within 180 days sign on to the proposed restriction.

Stage 2 Restrictions

Subpart C of FAR Part 161 sets forth the requirements for establishing restrictions on Stage 2 aircraft operations. It requires a study of the proposed restriction that must include:

1. an analysis of the costs and benefits of the proposed restriction;
2. a description of the alternative restrictions;
3. a description of the non-restrictive alternatives that were considered and a comparison of the costs and benefits of those alternatives to the costs and benefits of the proposed restriction.

It further requires that the study use the noise methodology and land use compatibility criteria established in FAR Part 150.[1] The study must also use currently accepted economic methodology. Where restrictions on Stage 2 aircraft weighing less that 75,000 pounds are involved, the study must include separate detail on how the restriction would apply to aircraft in this class.

After completing the study, the airport operator must publish a notice of the proposed restriction and an opportunity for public comment in a newspaper of general circulation in the area, post a notice prominently in the airport; and notify the FAA, local governments, all airport tenants whose operations might be affected by the proposed restrictions, and community groups and business organizations.[2] The FAA must publish an announcement of the proposed restriction in the *Federal Register*.[3]

The required study and public notice must be completed at least 180 days before the airport operator implements the proposed restriction.[4] There is no specific provision in ANCA or Part 161 for FAA action on the airport's proposed Stage 2 restriction. In practice, the FAA has reviewed Stage 2 Part 161 Studies for completeness. No specific deadlines for this review process are set in Part 161.

Stage 3 Restrictions

Subpart D of FAR Part 161 establishes the requirements that an airport operator must follow in order to implement a noise or access restriction on Stage 3 aircraft. The required analysis must include the same elements required for a proposed restriction on Stage 2 aircraft. In addition, the required Part 161 Study must demonstrate "by substantial evidence that the statutory conditions are met." These six conditions, specified in ANCA are:

- Condition 1: The restriction is reasonable, non-arbitrary, and non-discriminatory.
- Condition 2: The restriction does not create an undue burden on interstate or foreign commerce.
- Condition 3: The proposed restriction maintains safe and efficient use of the navigable airspace.
- Condition 4: The proposed restriction does not conflict with any existing Federal statute or regulation.
- Condition 5: The applicant has provided adequate opportunity for public comment on the proposed restriction.
- Condition 6: The proposed restriction does not create an undue burden on the national aviation system.[5]

[1] 14 CFR Part 161, Secs. 161.9, 161.11, and 161.205(b).
[2] 14 CFR Part 161, Sec. 161.203(b).
[3] 14 CFR Part 161, Sec. 161.203(e).
[4] 14 CFR Part 161, Sec. 161.203(a).
[5] 14 CFR Part 161, Sec. 161.305(e).

The applicant must also prepare an EA or documentation supporting a categorical exclusion.[6]

After submission by an airport operator of a complete Part 161 application package, the FAA has 30 days to review it for completeness. Notice of the proposed restriction must be published by the FAA in the *Federal Register*. After reviewing the application and public comments, the FAA must issue a decision approving or disapproving the proposed restriction within 180 days after receipt of a complete application. This decision is a final decision of the FAA Administrator for purposes of judicial review.[7]

A.1.4.2 Consequences of Failing to Comply with Part 161

Subpart F describes the consequences of an airport operator's failure to comply with Part 161. The sanction provided for in Subpart F is the termination of the airport's eligibility to receive airport grant funds and to collect PFCs.[8] Most of Subpart F describes the process for notifying airport operators of apparent violations, dispute resolution, and implementation of the required sanctions.

A.1.5 ICAO RULES

The Convention on International Civil Aviation (also known as the *Chicago Convention*), was signed on December 7, 1944 by 52 states. Pending ratification of the Chicago Convention by 26 states, the Provisional International Civil Aviation Organization (PICAO) was established. It functioned from June 6, 1945 until April 4, 1947. By March 5, 1947 the 26th ratification was received. ICAO came into being on April 4, 1947. In October of the same year, ICAO became a specialized agency of the United Nations and is now 185 nations strong.

During 2000 and 2001, ICAO's Committee on Aviation Environmental Protection (CAEP) has evaluated the introduction of a new noise standard. In September 2001, the ICAO Council met and agreed to the following:

1. Established a new Stage 4 standard that is 10 dB quieter than Stage 3 for aircraft newly-certified after 2006.

2. If a member state decides to permit noise restrictions on any Stage 3 aircraft, the ICAO Assembly recommends that such restriction:
   - Be based on the noise performance of the aircraft (the European Union has imposed a restriction based on engine by-pass ratio);
   - Be tailored to the noise problem of the airport concerned in accordance with the **balanced approach**;
   - Be partial in nature, whenever possible, rather than the complete withdrawal of operations at an airport;

[6] 14 CRF Part 161, Sec. 161.305(c).
[7] 14 CFR Part 161, Sec. 161.313(b)(2).
[8] 14 CFR Part 161, Sec. 161.501.

- Take into account possible consequences for air transport services for which there are no suitable alternatives, such as long-haul service;
- Consider the special circumstances of operators from developing countries in order to avoid undue economic hardship on them and by granting them exemptions;
- Introduce such restrictions gradually over time, where possible, in order to take into account the economic impact on affected operators;
- Give operators a reasonable period of advance notice;
- Take into account the economic and environmental impact on civil aviation in terms of recent events; and
- Inform ICAO and other states of all such restrictions imposed.

The balanced approach to noise management endorsed by the ICAO Assembly consists of "identifying the noise problem at an airport and then analyzing the various measures available to reduce noise through the exploration of four principal elements with the goal of addressing the noise problem in the most cost-effective manner." The four principal elements of the balanced approach are:

- Reduction of noise at the source
- Land-use planning and management
- Noise abatement operational procedures
- Operating restrictions

A.2 NOISE RESEARCH AND DEVELOPMENT ACTIVITY

The National Aeronautics and Space Administration (NASA) has been charged with providing pre-competitive research endeavors in long-term, high-risk, high-payoff technologies and to "provide revolutionary advancements that protect U.S. leadership for future generations. The impact of NASA's research on our national transportation system, our national security, the environment, and our economy demonstrates a clear government role in support of the public good."[9]

To that end, NASA has conducted the Advanced Subsonic Transport (AST) program which has now transformed into the Quiet Aircraft Technology (QAT) program. To help conduct research, NASA has created the Technical Working Group made up of NASA and FAA experts, industry leaders, and academia.

The goal of the QAT Program is to develop technology that, when implemented, reduces the impact of aircraft noise to benefit airport neighbors, the aviation industry, and travelers. NASA's goals for the QAT program include a balanced approach to noise reduction through determining "Community Noise Impact," "Airframe System Noise Reduction," and "Engine System Noise Reduction."

[9] Excerpt from NASA's Aeronautics & Space Transportation Technology : Three Pillars for Success, *Message from the Administrator*, Daniel S. Goldin, March 1997

Noise Reduction Goal: Reduce the perceived noise levels of future aircraft by a factor of two (10 dB) from today's subsonic aircraft within 10 years, and by a factor of four (20 dB) within 25 years relative to 1997 "best in fleet" (757, 777 aircraft).

A.3 LAND USE POLICIES AND GOVERNANCE

This section discusses the role of land use controls, responsibility for implementing those controls, and the FAA Mitigation Policy.

A.3.1 THE ROLE OF LAND USE CONTROLS IN PART 150 PLANS

The FAR Part 150 Program was established under the Aviation Safety and Noise Abatement Act of 1979 (ASNA) and allows airport operators to voluntarily submit noise exposure maps (NEMs) and NCPs to the FAA for review and approval. An NCP sets forth the measures that an airport operator "has taken" or "has proposed" for the reduction of existing incompatible land uses and the prevention of additional incompatible land uses within the area covered by NEMs. Typically recommended noise abatement measures fall into three categories:

3. **Operational** measures – these measures are applied at the airfield or to aircraft operations and include changes in runway use or changes in flight-track location.
4. **Preventive** measures – land use control measures to prevent the new noise-sensitive land uses from occurring in the existing and future airport noise contours; such measures include compatible land use zoning or noise overlay zoning within off-airport noise exposure areas.
5. **Corrective (Remedial)** measures – mitigation measures applied to existing incompatible land uses; such measures include acquisition or sound insulation of noise-sensitive property. (Noise-sensitive property is defined as houses, schools, churches, nursing homes, hospitals, and libraries.)

The FAA adopted land use compatibility guidelines relating types of land use to airport sound levels when it promulgated FAR Part 150 in 1985. These guidelines, reproduced here as **Table A-1, *Land Use Compatibility Guidelines – FAR Part 150***, show the compatibility parameters for residential, public (schools, churches, nursing homes, hospitals, libraries), commercial, manufacturing and production, and recreational land uses.

Table A-1
LAND USE COMPATIBILITY GUIDELINES - FAR PART 150

	YEARLY DAY-NIGHT AVERAGE SOUND LEVEL (DNL) IN DECIBELS					
LAND USE	**BELOW 65**	**65-70**	**70-75**	**75-80**	**80-85**	**OVER 85**
RESIDENTIAL						
Residential, other than mobile homes and transient lodgings	Y	N[1]	N[1]	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N[1]	N[1]	N[1]	N	N
PUBLIC USE						
Schools, hospitals, nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y[2]	Y[3]	Y[4]	N[4]
Parking	Y	Y	Y[2]	Y[3]	Y[4]	N
COMMERCIAL USE						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail -- building materials, hardware, and farm equipment	Y	Y	Y[2]	Y[3]	Y[4]	N
Retail trade, general	Y	Y	25	30	N	N
Utilities	Y	Y	Y[2]	Y[3]	Y[4]	N
Communication	Y	Y	25	30	N	N
MANUFACTURING AND PRODUCTION						
Manufacturing, general	Y	Y	Y[2]	Y[3]	Y[4]	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y[6]	Y[7]	Y[8]	Y[8]	Y[8]
Livestock farming and breeding	Y	Y[6]	Y[7]	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
RECREATIONAL						
Outdoor sports arenas and spectator sports	Y	Y	Y[5]	N[5]	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

Table A-1, *Continued*
LAND USE COMPATIBILITY GUIDELINES - FAR PART 150

The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key To Table A-1

Y (Yes) Land use and related structures compatible without restrictions.

N (No) Land use and related structures are not compatible and should be prohibited.

NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure

25, 30, 35 Land use and related structures generally compatible; measures to achieve a NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

Notes for Table A-1

1. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as five, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
2. Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
4. Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
5. Land use compatible provided special sound reinforcement systems are installed.
6. Residential buildings require a NLR of 25 dB.
7. Residential buildings require a NLR of 30 dB.
8. Residential buildings not permitted.

Source: FAR Part 150 Airport Noise Compatibility Planning, Appendix A, Table 1.

The Part 150 guidelines are the basis for defining areas potentially eligible for Federal funding through the AIP. The *Airport Improvement Handbook* states, "Noise compatibility projects usually must be located in areas where noise measured in day-night average sound level (DNL) is 65 (dB) or greater."[10] Federal funding is available at noise levels below 65 DNL if the airport operator (Sponsor) determines that incompatible land uses exist below 65 DNL and the FAA concurs with the Sponsor's determination.

As shown in Table A-1, all land uses within areas below 65 DNL are considered to be compatible with airport operations. Residential land uses are generally incompatible with noise levels above 65 DNL. In some areas, residential land use may be permitted in the 65 to 70 DNL with appropriate sound insulation measures implemented. This is done at the discretion of local communities. Schools and other public use facilities located between 65 and 75 DNL are generally incompatible without sound insulation. Above 75 DNL, schools, hospitals, nursing homes, and churches are considered incompatible land uses. The information presented in Table 1 is meant to act as a guideline. According to FAR Part 150, "Adjustments or modifications of the descriptions of the land-use categories may be desirable after consideration of specific local conditions."[11]

Therefore, specific land use controls are implemented at the discretion of local governments. An airport sponsor typically does not have the authority to implement local land use controls.

Land use management measures used for Part 150 purposes include both preventive and corrective techniques. Preventive land use management techniques seek to prevent the introduction of additional noise-sensitive land uses within existing and future airport noise contours. Preventive measures include two categories – regulatory and policy:

Regulatory

- Compatible Use Zoning: commercial, industrial, or farmland zoning
- Zoning Changes, Residential Density: large-lot zoning, planned development, multi-family zoning
- Noise Overlay Zoning: special regulations within high-noise areas
- Transfer of Development Rights: zoning framework to authorize private sale of development rights to encourage sparse development in high-noise areas
- Environmental Zoning: environmental protection zoning to support airport land use compatibility
- Subdivision Regulation Changes: require dedication of noise and avigation easements, plat notes
- Building Code Changes: require soundproofing in new construction

[10] FAA Order 5300.38C, Chapter 7, paragraph 706.
[11] FAR Part 150, Part B Noise Exposure Map Development, Section A150.101 Noise contours and land usages, paragraph (c).

- Dedicated Noise and Avigation Easements: require for development permits
- Fair Disclosure Regulations: require seller to notify buyer of aircraft noise

Policy

- Comprehensive Planning: policies supporting land use compatibility. Can involve specific land use plans and policies to guide rezoning, variances, conditional uses, public projects
- Capital Improvement Programming: public investments which support airport land use compatibility

Corrective land use management techniques seek to remedy existing and projected future unavoidable noise impacts in existing areas of incompatible land use. Corrective land use management techniques can also be classified in one of two general categories: modify use and maintain use. Corrective measures include:

Modify Existing Use

- Guaranteed Purchase (Fee Simple): outright purchase of property with the intent of removing incompatible use by demolition of structure
- Development Rights Purchase: purchase of rights to develop property
- Land Banking: acquisition of vacant land for long-term airport facility needs
- Redevelopment: acquisition and redevelopment of property

Maintain Existing Use

- Purchase Assurance: airport Sponsor acts as buyer of last resort, sound insulates house, sells property, retains easement
- Sales Assistance: airport Sponsor sound insulates house, guarantees that the property owner will receive the appraised value, or some increment thereof, regardless of final sales value that is negotiated with a buyer, retains easement
- Sound Attenuation: sound insulation of homes, noise-sensitive public facilities, retains easement
- Noise and Avigation Easement Purchase: purchase of easement only

A.3.2 FAA FINAL POLICY ON PART 150 NOISE MITIGATION MEASURES

The FAA issued a final policy to establish a distinction between remedial and preventive noise mitigation measures proposed by airport operators and submitted for approval by the FAA under noise compatibility planning regulations. In the notice of final policy[12] effective October 1, 1998, the FAA stated the following:

[12] FAA Notice of Final Policy, October 1, 1998.

- As of October 1, 1998, the FAA will approve under 14 CFR Part 150 only remedial noise mitigation measures for existing incompatible development and only preventive noise mitigation measures in areas of potential new incompatible development.
- The FAA will not approve remedial noise mitigation measures for new incompatible development that occurs in the vicinity of airports.
- The use of AIP funds will be affected to the extent that such use depends on approval under Part 150.

The Airport Noise Compatibility Planning Program (14 CFR Part 150) was established under the Aviation Safety and Noise Abatement Act of 1979 (49 U.S.C. 47501 through 47509, hereinafter referred to as ASNA). The Part 150 program allows airport operators to submit NEMs and NCPs to the FAA voluntarily. According to the ASNA, an NCP sets forth the measures that an airport operator has taken or has proposed for the reduction of existing incompatible land uses and the prevention of additional incompatible land uses within the area covered by NEMs.

The ASNA embodies strong concepts of local initiative and flexibility. The submission of NEMs and NCPs is left to the discretion of local airport operators. Airport operators also may choose to submit NEMs without preparing and submitting an NCP. The types of measures that airport operators may include in an NCP are not limited by the ASNA, allowing airport operators substantial latitude to submit a broad array of measures--including innovative measures--that respond to local needs and circumstances.

The criteria for approval or disapproval of measures submitted in a Part 150 program are set forth in the ASNA. The ASNA directs the Federal approval of an NCP, except for measures relating to flight procedures: (1) if the program measures do not create an undue burden on interstate or foreign commerce; (2) if the program measures are reasonably consistent with the goal of reducing existing incompatible land uses and preventing the introduction of additional incompatible land uses; and (3) if the program provides for its revision if necessitated by the submission of a revised NEM. Failure to approve or disapprove an NCP within 180 days, except for measures relating to flight procedures, is deemed to be an approval under the ASNA. Finally, the ASNA sets forth criteria under which grants may be made to carry out noise compatibility projects, consistent with ASNA's overall deference to local initiative and flexibility.

The FAA is authorized, but not obligated, to fund projects via the AIP to carry out measures in an NCP that are not disapproved by the FAA. Such projects also may be funded with local PFC revenue upon the FAA's approval of an application filed by a public agency that owns or operates a commercial service airport, although the use of PFC revenue for such projects does not require an approved NCP under Part 150.

In establishing the airport noise compatibility planning program, which became embodied in FAR Part 150, the ASNA did not change the legal authority of state and local governments to control the uses of land within their jurisdictions. Public controls on the use of land are commonly exercised by zoning. Zoning is a power

reserved to the states under the U. S. Constitution. It is an exercise of the police powers of the states that designates the uses permitted on each parcel of land. This power is usually delegated in states enabling legislation to local levels of government.

Many local land use control authorities (cities, counties, etc.) have not adopted zoning ordinances or other controls to prevent incompatible development (primarily residential) within the noise impact areas of airports. An airport noise impact area, identified within noise contours on an NEM, may extend over a number of different local jurisdictions that individually control land uses.

While airport operators have included measures in NCPs submitted under Part 150 to prevent the development of new incompatible land uses through zoning and other controls under the authorities of appropriate local jurisdictions, success in implementing these measures has been mixed.

One or more of the factors hindering effective land use controls may be of sufficient importance to preclude some jurisdictions from following through on the land use recommendations of an airport's Part 150 NCP. When either an airport sponsor's or a non-airport sponsor's jurisdiction allows additional incompatible development within the airport noise impact area, it can result in noise problems for the people who move into the area. This can, in turn, result in noise problems for the airport operator in the form of inverse condemnation or noise nuisance lawsuits, public opposition to proposals by the airport operator to expand the airport's capacity, and local political pressure for airport operational and capacity limitations to reduce noise. Some airport operators have taken the position that they will not provide any financial assistance to mitigate aviation noise for new incompatible development. Other airport operators have determined that it is a practical necessity for them to include at least some new residential areas within their noise assistance programs to mitigate noise impacts that they were unable to prevent in the first place. Over a relatively short period of time, the distinctions blur between what is "new" and what is "existing" residential development with respect to airport noise issues.

Airport operators currently may include new incompatible land uses, as well as existing incompatible land uses, within their Part 150 NCPs and recommend that remedial noise mitigation measures--usually either property acquisition or noise insulation--be applied to both situations. These measures have been considered to qualify for approval by the FAA under 49 USC 47504 and 14 CFR Part 150. The Part 150 approval enables noise mitigation measures to be considered for Federal funding under the AIP, although it does not guarantee that Federal funds will be provided.

Final Policy

Therefore, as of October 1, 1998, the FAA will approve remedial noise mitigation measures under Part 150 only for incompatible development which exists as of that date. Incompatible development that potentially may occur on or after October 1, 1998, may only be addressed in Part 150 programs with preventive noise mitigation measures. This policy will affect the use of AIP funds to the extent

that such funding is dependent on approval under Part 150. Approval of remedial noise mitigation measures for bypassed lots or additions to existing structures within noise impacted neighborhoods, additions to existing noise impacted schools or other community facilities required by demographic changes within their service areas, and formerly noise compatible uses that have been rendered incompatible as a result of airport expansion or changes in airport operations, and other reasonable exceptions to this policy on similar grounds must be justified by airport operators in submittals to the FAA and will be considered by the FAA on a case-by-case basis. This policy does not affect AIP funding for noise mitigation projects that do not require Part 150 approval, that can be funded with PFC revenue, or that are included in FAA-approved environmental documents for airport development.

APPENDIX B
FIELD NOISE MEASUREMENTS AND NOISE COMPLAINTS

This appendix provides the results of temporary monitoring conducted to provide information to the development of noise contour modeling and the complaints about aircraft noise documented by the airport's management staff.

B.1 NOISE MEASUREMENTS

A noise measurement program was conducted the weeks of June 19, 2006 and June 4, 2007, following Federal Aviation Regulations (FAR) Part 150 Guidelines. This field measurement program was intended to provide numerous measurements of individual aircraft overflight events. The measurements were compared with pre-existing database information related to aircraft noise level and performance characteristics. The information collected during the measurement program included acoustical output, as measured at known locations, as well as flight trajectory data (the aircraft's three-dimensional location) relative to the noise measurement site.

Measurements made for short periods are unique to that one period, and may not represent the average of the events that would occur at that location over a longer period of time. The relationship between field measurements and computer-modeled average noise levels is comparable to that between a book and its cover. While the cover (single-event measurements) may indicate something of the character of a book, and receive inordinate attention based on its color or graphics, the total story (average noise level) is in all the words that constitute the story. It is on the total story that the critic makes his assessment. In other words, the modeling process simulates overall average annual conditions (the book) while field measurements (the cover) reflect only a small part of the whole story.

Aircraft noise measurements concentrated on the collection of a variety of single overflight noise information, with emphasis on the noise generated by air carrier aircraft during arrival and departure east and west of the airport. Measurements occurred during all times that the airport was operating.

B.1.2 NOISE MEASUREMENT SITES

Noise monitoring sites were chosen at 43 locations based on their proximity to the airport, the flow of aircraft operations during the measurement program, and areas of historic noise concerns. **Exhibit B-1, *Noise Measurement Sites***, illustrates the location of the noise measurement sites. General sites were selected on the basis of ambient noise level (or more specifically, the absence of loud ambient noise), locations of flight tracks derived from preliminary early analysis of Aircraft Noise

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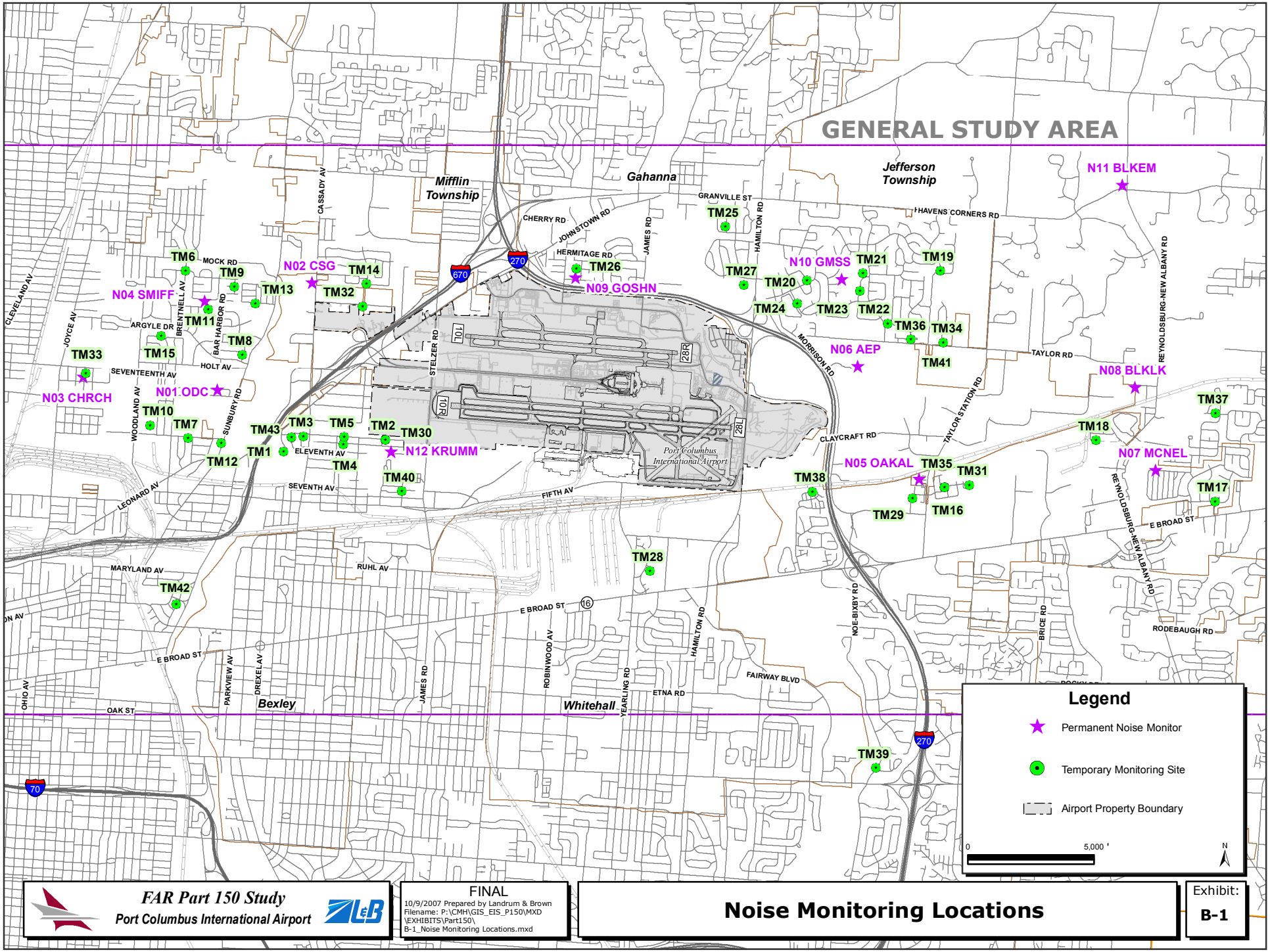

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\B-1_Noise Monitoring Locations.mxd

Noise Monitoring Locations

Exhibit: B-1

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and Operations Monitoring System (ANOMS) [1] information, locations of noise complaints received by the airport, and the locations of concentrations of residential use in overflown areas. Specific locations were selected through application of consultant experience. Criteria for the selection of specific locations included:

- Emphasis on areas of numerous aircraft noise events according to earlier evaluations.
- Representative sampling of all major types of operations and aircraft using the Port Columbus International Airport (CMH).
- Screening of each site for local noise sources or unusual terrain characteristics, which could affect measurements.
- Location in or near areas from which complaints about aircraft noise were received, or where there are concentrations of people exposed to numerous aircraft overflights.

While there is no end to the number of locations available for monitoring, the selected sites fulfill the above criteria and provide a representative sampling of the varying aircraft noise conditions in the vicinity of the airport. Information collected during the noise measurement program included single-event peak decibel (dB) levels (Lmax), Sound Exposure Levels (SEL), event duration, time of occurrence and aircraft type.[2]

B.1.3 ACOUSTICAL MEASUREMENTS

This section provides a technical description of the acoustical measurements that were performed for this Part 150 study. Described here are the instrumentation that was employed, calibration procedures followed, and related data collection items and procedures.

B.1.3.1 Instrumentation

Three sets of acoustical instrumentation and analysis equipment were used in order to obtain acoustical data to compare with standard data associated with aircraft noise. The major instrumentation that was used is listed in **Table B-1, *Acoustical Measurement Instrumentation***.

[1] The CMH ANOMS system collects radar data for operations arriving, departing and enroute through CMH airspace. The data collected includes runway use, aircraft type, operation type, time of arrival or departure, airline, and flight track location.

[2] Lmax refers to the maximum A-weighted noise level recorded for a single noise event. SEL is a logarithmic expression of the all the sound energy for a single noise event compressed into one second. Durations are expressed in seconds and the identification of aircraft types was done visually from the ground as the aircraft passed over head.

Table B-1
ACOUSTICAL MEASUREMENT INSTRUMENTATION
Port Columbus International Airport

NUMBER	INSTRUMENT TYPE
2	Larson Davis 814 Type 1 Integrating Sound Level Meter/Real-Time Analyzer
2	Larson Davis ½" PRM902 w/ Windscreens
2	Type 1 Precision Microphone Calibrator, 94 or 114 db output, 1kHz, ½" opening

Source: Landrum & Brown, 2007.

B.1.3.2 MEASUREMENT PROCEDURES

Aircraft noise levels were recorded using the equipment indicated in the above table for each of the 43 sites. ANOMS data was obtained from CMH for the time period when measurements were conducted. The noise-monitoring program was designed to provide a sampling of single events throughout the study area. It was not designed to record cumulative noise levels. The monitors were attended while active to ensure that only aircraft noise events were recorded. The monitoring procedure called for the operator to record information such as aircraft type, airline, if the operation was an arrival or departure, and duration (as available) when a noise event first became audible. The start and end time of when the event was audible was also recorded.

Noise measurement programs must be conducted for relatively long sampling periods (at least one week per location several times a year), and at a large number of dispersed locations before they can be used to define the location of Day-Night Average Sound Level (DNL) noise contours. Even then, a computer-generated set of noise contours is necessary and long-term measurement data is used to adjust these contours. As applied at CMH, the noise contours were not created by or adjusted to reflect long-term measured data.

The CMH program provided for the collection of a large number of single-event measurements at a variety of locations throughout the community at distances ranging from several hundred feet to several miles between the aircraft and the monitoring site. This information, when correlated with the ANOMS data and operating schedules, allowed the determination of applicable noise curves and performance characteristics within the Integrated Noise Model (INM) database for the most significant aircraft and operators. The measured data generally reflected the noise levels within the INM database for those aircraft operated by the jet operators at the airport. Therefore no data was identified to support modification of any noise curves or standard operational data.

B.1.3.3 Weather Information

The noise measurements taken during this study were obtained during a period that saw typical sky and wind conditions. The measurements were recorded during both clear and overcast sky conditions and during both easterly and westerly winds.

B.1.3.4 Measurement Results Summary

The noise measurement program revealed a wide range of noise exposure levels from aircraft activity within the airport environs. The measured noise levels from departing aircraft tended to produce SEL and peak dB levels several dB higher than those of arriving aircraft. This difference is caused by two characteristics of the separate operations. First, exposure to noise above the background levels from arriving aircraft is typically shorter than from departing aircraft, resulting in less cumulative energy to be factored into the SEL exposure level. Second, the power settings used during approach are less than those necessary to climb during the takeoff, resulting in lower sound levels that are several dB lower than measured at similar locations during departure.

An evaluation of the SEL and peak dB (Lmax) levels measured at the various locations indicates that the SEL always runs several dB louder than the Lmax. When the Lmax is low, the SEL may be as much as 10 to 15 dB higher than the peak level, but when the Lmax is high, the SEL is typically only 6 to 12 dB louder. Again, this characteristic is the result of longer exposure to noise levels above background levels during takeoff events. **Table B-2, *Temporary Noise Monitoring Results***, provides a synopsis of the measurements.

During the daytime (7:00 a.m. to 9:59 p.m.), the airport is operated in one of two operating configurations—west flow (75 percent of the time) or east flow (25 percent of the time). When the airport operated in west flow, aircraft arrive from the east heading west and depart to the west on Runways 28L and 28R. During east flow operations, aircraft arrive from the west heading east and depart to the east on Runways 10L and 10R. Therefore, the majority of the measurements taken to the west of the airport recorded departure operations; whereas measurements taken on the east side of the airport recorded arrivals, which tend to be quieter than departure operations. Measurements recorded to the west of the airport in Columbus and Mifflin Township resulted in Lmax noise levels ranging from the middle 46 to 93 dB. To the east in Columbus, Gahanna and Truro Township, lower Lmax noise levels were recorded, ranging from 45 to 85 dB.

Measurement sites were also selected to the north in Gahanna and to the south in Whitehall. Both arrival and departure operations were recorded at these sites. The Lmax noise levels at the sites to the north ranged from 54 to 62 dB and the noise levels at the sites to the south ranged from 50 to 62 dB.

The loudest aircraft event recorded was a McDonnell-Douglas DC-9 departure. Other loud aircraft monitored included McDonnell-Douglas MD-80 series aircraft and Boeing 737-300's.

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Table B-2
TEMPORARY NOISE MONITORING RESULTS
Port Columbus International Airport

Site Number	Location	Ambient Noise Level (dB)	Date Monitored	Time Monitored	Type of Events	Lmax (loudest noise event)	Loudest aircraft	SEL Range
TM1	Lutheran Village	48.7	06/19/06	10:10 AM - 11:00 AM	Departures	80.2	A320	67.4 - 88.9
TM2	3193 E. 13th Avenue	50.4	06/19/06	10:10 AM - 11:15 AM	Departures	82.2	Business Jet	51.7 - 89.9
TM3	2715 Kenilworth Avenue	52.0	06/19/06	11:05 AM - 12:02 PM	Departures	76.9	MD-80	70.2 - 85.4
TM4	2978 E. 12th Avenue	56.5	06/19/06	11:05 AM - 12:05 PM	Departures	74.7	737-300	66.4 - 82.9
TM5	2985 E. 13th Avenue	42.8	06/19/06	11:25 AM - 12:25 PM	Departures	93.7	DC-9	65.6 - 102.3
TM6	Delavan Dr.& Brentnell	56.5	06/19/06	2:25 PM - 3:25 PM	Departures	78.6	A320	59.5 - 87.9
TM7	Woodward Road	45.0	06/19/06	2:30 PM - 3:30 PM	Departures	75.4	A319	68.8 - 84.3
TM8	1551 Thames Drive	46.9	06/19/06	2:30 PM - 3:30 PM	Departures	82.9	737-300	74.4 - 90.2
TM9	Brocton Road & Brocton Court	48.9	06/19/06	3:28 PM - 4:30 PM	Departures	77.6	EMB-145	74.4 - 82.9
TM10	Eastlawn Cemetery	39.0	06/19/06	3:30 PM - 4:15 PM	Departures	74.6	EMB-170	63.5 - 84.5
TM11	South Mifflin Elementary	35.8	06/19/06	3:40 PM - 4:40 PM	Departures	88.8	MD-80	62.0 - 96.5
TM12	1095 Sunbury Road	50.0	06/19/06	4:30 PM - 5:45 PM	Departures	83.7	MD-80	67.9 - 91.9
TM13	Sunset Park Drive & Sparrow Hill Drive	44.6	06/19/06	4:33 PM - 5:30 PM	Departures	80	737-300	83.1 - 89.7
TM14	Lone Spruce Drive & Mountain Oak Drive	54.0	06/19/06	5:35 PM - 6:10 PM	Departures	79.9	737-300	65.2 - 79.9
TM15	1704 Marina Drive	56.5	06/19/06	5:10 PM - 6:20 PM	Departures	82.4	MD-80	72.0 - 91.9

Table B-2, *Continued*
TEMPORARY NOISE MONITORING RESULTS
Port Columbus International Airport

Site Number	Location	Ambient Noise Level (dB)	Date Monitored	Time Monitored	Type of Events	Lmax (loudest noise event)	Loudest aircraft	SEL Range
TM16	358 Hoskins Drive	48.7	06/19/06	9:27 PM - 10:27 PM	Arrivals	76.3	MD-80	64.9 - 83.6
TM17	Tayside Drive	41.0	06/20/06	10:00 AM - 11:00 AM	Arrivals	74.6	MD-80	64.5 - 83.7
TM18	6932 Onyx Bluff Drive	43.3	06/20/06	10:00 AM - 11:00 AM	Arrivals	82.1	Turbo Prop	74.1 - 89.5
TM19	1117 Caroway Drive	39.1	06/20/06	11:30 AM - 12:15 PM	Arrivals	66.5	Business Jet	51.1 - 73.3
TM20	631 Dunoon Drive	50.0	06/20/06	11:30 AM - 12:30 PM	Arrivals	58.2	MD-80	63.9 - 69.2
TM21	Gahanna Middle School South	44.0	06/20/06	12:30 PM - 1:45 PM	Arrivals	60.3	Cessna 150	48.5 - 68.3
TM22	510 Sutterton Drive	50.0	06/20/06	12:35 PM - 1:35 PM	Arrivals	66.9	EMB-170	70.4 - 73.9
TM23	Shady Spring Drive	40.0	06/20/06	1:50 PM - 2:50 PM	Arrivals & Departures	62.9	737-300	55.6 - 72.7
TM24	Havelock Drive	51.8	06/20/06	2:15 PM - 2:55 PM	Arrivals & Departures	63.5	EMB-170	60.4 - 71.4
TM25	Sierra Drive	37.4	06/20/06	3:00 PM - 4:00 PM	Departures	61.8	737-300	51.5 - 69.2
TM26	Goshen Elementary School	54.0	06/20/06	3:10 PM - 4:10 PM	Departures	62.3	GA Prop	66.7 - 74.5
TM27	Shepherd Church Of The Nazarene	53.7	06/20/06	4:06 PM - 5:10 PM	Arrivals & Departures	74.3	MD-88	66.2 - 81.4
TM28	Emerick Court	49.2	06/21/06	6:21 AM - 6:51 AM	Departures	59.5	737-300	62.0 - 69.3
TM29	Directory Drive	57.5	06/21/06	8:00 AM - 9:00 AM	Departures	83.3	MD-80	67.6 - 94.9
TM30	3193 E. 13th Avenue	48.4	06/21/06	9:29 AM - 10:30 AM	Arrivals & Departures	79.6	EMB-145	64.5 - 88.9

Table B-2, *Continued*
TEMPORARY NOISE MONITORING RESULTS
Port Columbus International Airport

Site Number	Location	Ambient Noise Level (dB)	Date Monitored	Time Monitored	Type of Events	Lmax (loudest noise event)	Loudest aircraft	SEL Range
TM31	Lakes At Taylor Crossing	52.0	06/21/06	9:30 AM - 10:30 AM	Departures	70.2	EMB-145	76.0 - 81.3
TM32	2765 Drake Road	55.1	06/21/06	10:45 AM - 11:40 AM	Arrivals & Departures	80.9	Business Jet	66.8 - 88.4
TM33	1548 Wentworth Road	52.5	06/21/06	12:45 PM - 1:45 PM	Arrivals	80.7	Business Jet	71.1 - 88.3
TM34	Taylor Road	49.0	06/21/06	2:25 PM - 3:20 PM	Departures	82.8	737-300	70.4 - 90.4
TM35	358 Hoskins Way	53.5	06/21/06	2:45 PM - 3:45 PM	Departures	76.6	EMB-170	70.7 - 85.9
TM36	Howland Drive	49.0	06/21/06	3:30 PM - 4:15 PM	Departures	79.8	A320	72.9 - 85.2
TM37	7690 Sherridon Drive	47.7	06/21/06	4:05 PM - 5:05 PM	Departures	85.5	MD-80	59.0 - 92.8
TM38	466 Winding Woods Blvd.	52.5	06/22/06	9:10 AM - 10:10 AM	Arrivals & Departures	66.6	A320	61.8 - 74.0
TM39	Noe-Bixby Road	46.0	06/23/06	9:20 AM - 10:20 AM	Departures	62.9	EMB-135	65.8 - 72.1
TM40	Krumm Avenue & Sterling Court	51.9	06/24/06	12:20 PM - 1:45 PM	Departures	75.8	GA Prop	63.9 - 82.0
TM41	5969 Taylor Road	46.5	06/05/07	3:00 PM - 6:00 PM	Arrivals	85.5	A319	57.7 - 91.9
TM42	272 Sherborne Drive	48.6	06/06/07	6:00 AM - 10:00 AM	Departures	79.5	MD80	60.6 - 87.0
TM43	2702 Roxbury Road	44.9	06/06/07	3:00 PM - 6:00 PM	Departures	86.0	DC-9	62.5 - 93.5

DBA = A-Weighted Decibels Lmax = Maximum Noise Level SEL = Sound Exposure Level

1. Ambient Noise levels were recorded at each site and include noises other than aircraft events such as traffic, birds, and lawnmowers.

Source: Landrum & Brown, 2007.

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B.1.4 FLIGHT PROCEDURES AND TAKEOFF PROFILES

The INM includes standard flight procedure data for each aircraft that represents each phase of flight to or from an airport. Information related to aircraft speed, altitude, thrust settings, flap settings, and distance are available and used by the INM to calculate noise levels on the ground. Standard aircraft departure profiles are supplied from the runway (field elevation) up to 10,000 feet above field elevation (AFE). Aircraft arrival profiles are supplied from 6,000 feet AFE down to the runway including the application of reverse thrust and rollout. The Federal Aviation Administration (FAA) requires that these standard arrival and departure profiles be used unless there is evidence that they are not applicable.

The INM uses a distance of flight as a surrogate for assigning departure profiles that determine aircraft weight, as well as speed, thrust, and altitude during different stages of flight.[3] The INM groups trip lengths into seven categories; these categories are:

Category	Stage Length
1	0-500 nautical miles
2	500-1000 nautical miles
3	1000-1500 nautical miles
4	1500-2500 nautical miles
5	2500-3500 nautical miles
6	3500-4500 nautical miles
7	4500+ nautical miles

An analysis of the departures at CMH was conducted in which actual flight profiles and noise levels were compared with flight profiles and predicted noise levels generated by the INM. The results of the analysis indicated that several aircraft were consistently lower in altitude on departure and produced higher noise levels than what was predicted by the noise model for those particular aircraft based upon the distance method. For example, a 737-300 departing to the Nashville International Airport (BNA) would be assigned a Stage 1 profile based upon the flight distance of 293 nautical miles. However, based upon observations made during the noise measurement program, it was noted that a 737-300 en-route to BNA more closely matched a higher stage profile (stage 2). Therefore all 737-300 aircraft departing to BNA were assigned a stage profile of 2 rather than 1. **Table B-3, *Selection of Departure Profiles***, shows the changes that were made to those aircraft and destination combinations where the distance method was found to be inaccurate.

[3] INM standard stage length assumptions are described on page 8-19 of the INM 6.0 Users Guide.

Table B-3
SELECTION OF DEPARTURE PROFILES
Port Columbus International Airport

INM AIRCRAFT ID	DESTINATION AIRPORT	DISTANCE FROM CMH TO DESTINATION	INM ASSIGNED STAGE	INM STAGE WEIGHT	OBSERVED STAGE[1]	OBSERVED STAGE WEIGHT
737300	BNA	293	1	108,800	2	114,100
737300	BWI	292	1	108,800	2	114,100
737300	MDW	245	1	108,800	2	114,100
737300	TPA	721	2	114,100	3	119,900
A319	ORD	256	1	128,800	4	141,100
MD82	ORD	256	1	117,000	2	124,000
MD83	ATL	388	1	125,000	4	158,000
MD83	CVG	100	1	125,000	4	158,000
MD83	DFW	803	2	133,000	4	158,000

1. Observed stage reflects the INM flight profile and noise level that most closely aligned with the observed flight profile and noise levels collected in the field. The observed weight is the INM assigned weight according to its stage length.

B.1.5 PERMANENT NOISE MONITORING SYSTEM

CMH has 12 permanent noise monitors located at various sites to the north, south, east, and west of the airport. Monthly noise reports are produced for each of the permanent monitors. The reports provide the number of noise events, the number of hourly summaries, airport DNL, community DNL, and total DNL for each monitor. **Exhibit B-2, *Permanent Noise Monitor Locations***, shows the location of the 12 monitors currently in use in the vicinity of CMH.

Table B-4, *Permanent Noise Monitors*, shows the recorded aircraft DNL (during the period of June 2, 2006 through September 30, 2006) compared to the INM modeled DNL for the Existing (2006) Baseline for each of the 12 monitoring sites. The period of June 2, 2006 through September 30, 2006 was used in the comparison because it is the period that most closely matched the conditions modeled for the Existing (2006) Baseline operating period. The operating levels for the Existing (2006) Baseline period were developed from Official Airline Guide (OAG) data, landing fee reports, and the ANOMS data for the period from May 2005 through April 2006. Runway use for the Existing (2006) Baseline period was derived for all aircraft categories except large jets from ANOMS data from April 2005 through March 2006. Runway use for large jets was derived from ANOMS data from June 2, 2006 through September 16, 2006 to include changes that occurred when Southwest Airlines relocated their operations from Concourse C (on the north side of the airport) to Concourse B (on the south side of the airport). This move resulted in increased use of the south runway (Runway 10R/28L).

The comparison shows that at eleven of the twelve permanent noise monitor locations INM modeled noise levels were within approximately 2.0 dB of the monitored noise levels at each of the locations. The average noise level across all of the sites was modeled to be 60.3 DNL, while the average monitored noise level

was 57.9 DNL. Because a difference of 1.2 dB is generally imperceptible to the human ear, it was determined that the modeled and monitored noise levels are within an acceptable tolerance. The INM modeled noise levels are higher at most sites due to the number of operations in the average-annual day being higher than the average number of operations during the time period of monitored levels. Because the Existing (2006) Baseline condition is comprised of various types of data from several different time periods, it is impossible for the modeled DNL and the monitored DNL to match exactly.

Table B-4
NOISE LEVELS AT PERMANENT NOISE MONITOR SITES
PORT COLUMBUS INTERNATIONAL AIRPORT

Monitor Number	Location	Latitude	Longitude	INM Modeled DNL	Monitored DNL[1]	Difference
PM1	ODC	39.99724	-82.94329	64.1	62.3	1.8
PM2	CSG	40.00895	-82.92997	61.6	60.4	1.2
PM3	CHRCH	39.99862	-82.96229	61.3	59.8	1.5
PM4	SMIFF	40.00689	-82.94512	61.8	61.5	0.3
PM5	OAKAL	39.98789	-82.84401	57.3	55.0	2.3
PM6	AEP	40.00011	-82.85276	63.4	62.6	0.8
PM7	MCNEL	39.98893	-82.81061	58.9	58.1	0.8
PM8	BLKLK	39.99796	-82.81354	58.4	57.7	0.7
PM9	GOSHN	40.00963	-82.89276	54.2	54.6	-0.4
PM10	GMSS	40.00961	-82.85506	50.6	50.4	0.2
PM11	BLKEM	40.01944	-82.81861	43.7	47.1	-3.4
PM12	KRUMM	39.99083	-82.91972	61.5	59.3	2.2
AVERAGE				**60.3**	**59.1**	**1.2**

1. Actual Average Aircraft DNL Value Recorded by Permanent Noise Monitor from 6/1/2006 to 9/30/2006

Source: Columbus Regional Airport Authority & Landrum & Brown Analysis, 2007

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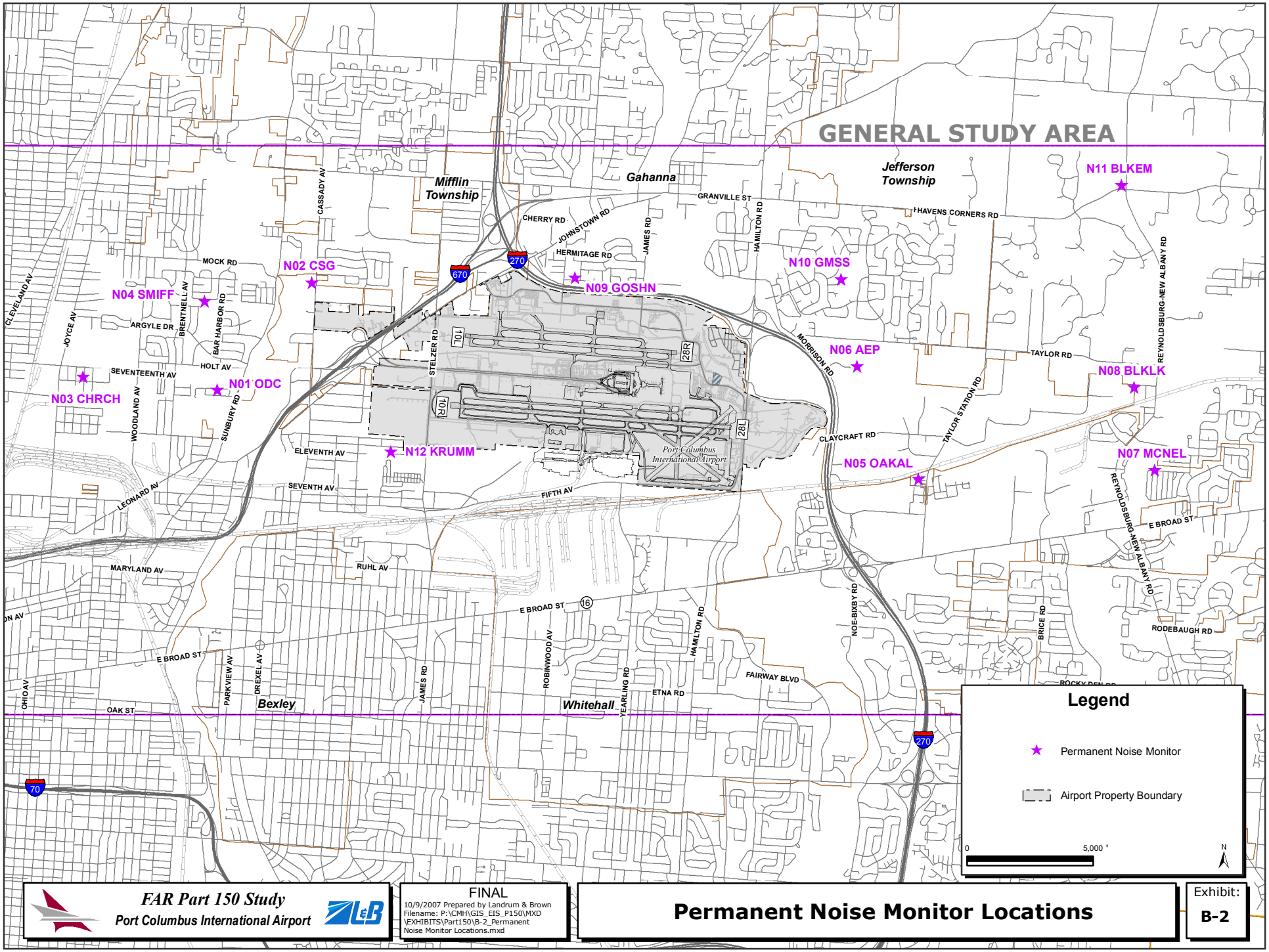

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Port Columbus International Airport

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10/9/2007 Prepared by Landrum & Brown
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Permanent Noise Monitor Locations

Exhibit: B-2

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B.1.6 NOISE COMPLAINT HISTORY

Noise complaint records dating back to 1996 were gathered in a database format for analysis in this study. **Table B-5** ***Summary of Noise Complaints*** provides a summary of the number of noise complaints received each year. **Exhibit B-3,** ***Location of Noise Complaints (2005 through 2006)***, illustrates the geographic locations of the noise complaints from January 2005 through December 2006.

Table B-5
SUMMARY OF NOISE COMPLAINTS
Port Columbus International Airport

Year	Number of Noise Complaints
1996	155
1997	187
1998	268
1999	231
2000	159
2001	120
2002	169
2003	113
2004	116
2005	88
2006	40

Source: Columbus Regional Airport Authority, 2007

On average the total annual number of noise complaints has decreased from 1998 when the airport received the most noise complaints, 268. The decline in complaints since 2002 has coincided with the reduction in operations due to America West's downsizing at CMH and AirNet's relocation to Rickenbacker International Airport. Other factors that may have led to a reduction in complaints included industry trends toward operating quieter aircraft and the continued implementation of the Residential Sound Insulation Program. The largest number of complaints occurred in the Columbus and Gahanna areas.

The noise complaint database was used to assist in the identification of noise concerns and in the development of mitigation and noise abatement measures.

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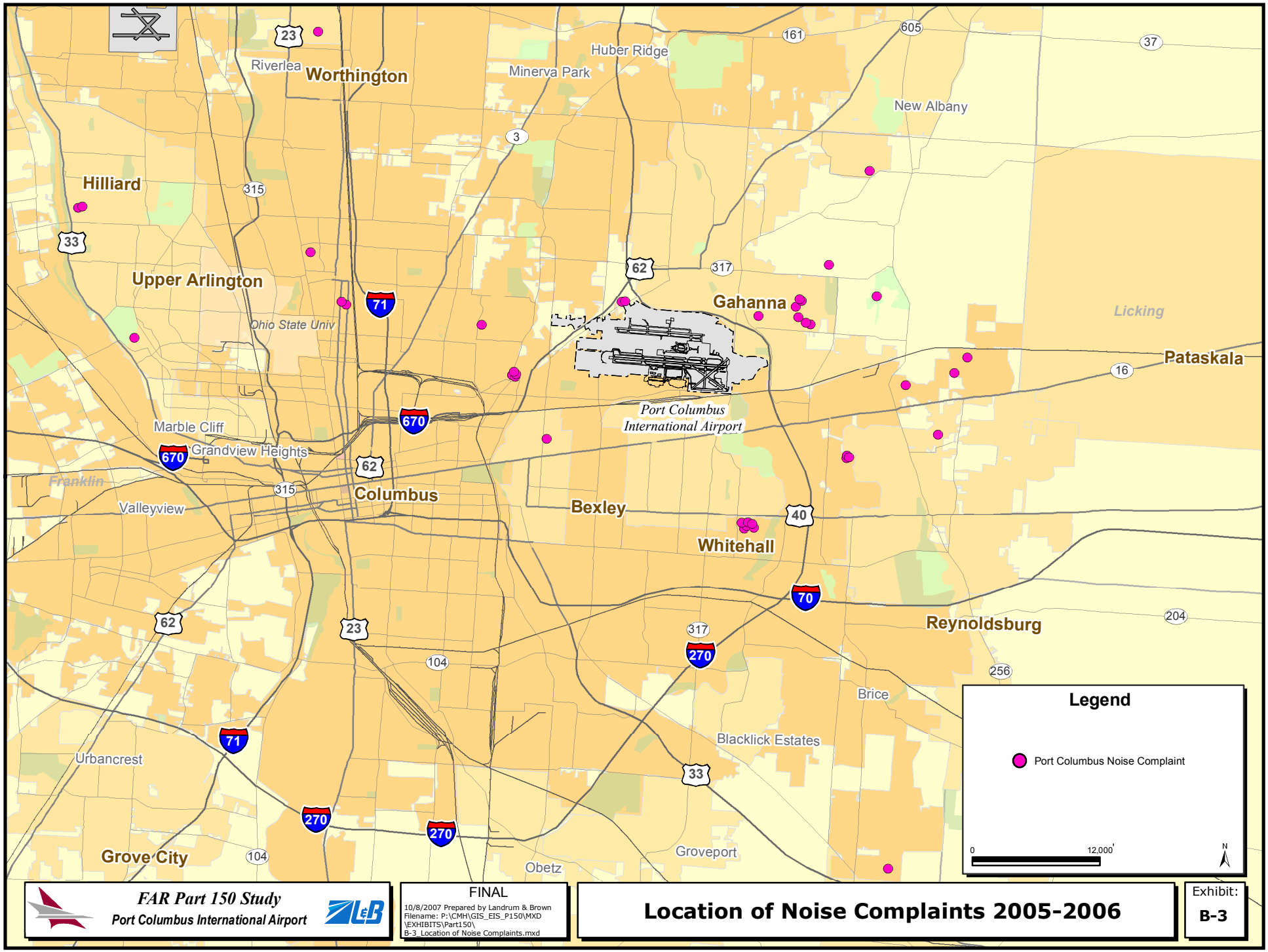
Worthington
Riverlea
Huber Ridge
Minerva Park
New Albany
Hilliard
Upper Arlington
Ohio State Univ
Gahanna
Licking
Pataskala
Port Columbus
International Airport
Marble Cliff
Grandview Heights
Franklin
Valleyview
Columbus
Bexley
Whitehall
Reynoldsburg
Brice
Blacklick Estates
Urbancrest
Grove City
Groveport
Obetz
Legend
Port Columbus Noise Complaint
0
12,000'
N
FAR Part 150 Study
Port Columbus International Airport
FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\
B-3 Location of Noise Complaints.mxd
Location of Noise Complaints 2005-2006
Exhibit:
B-3

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APPENDIX C
NOISE MODELING METHODOLOGY

This appendix sets forth the background material necessary for the reader to understand the principles of noise, the preparation of noise exposure contours and the development of estimates of noise impacts associated with those contours. The data is derived from a variety of sources including, but not limited to, records maintained by Columbus Regional Airport Authority (CRAA) airport management and the Federal Aviation Administration (FAA), and mapping available from Port Columbus International Airport (CMH) and local planning agencies.

Section C.1 and C.2 provides background information necessary to understand the properties of sound and noise, including how noise levels are measured and expressed mathematically.

Section C.3 provides basic information on the noise metric and computer model used to compute noise and a statement relative to the comparability of baseline information and the years indicated on the official noise mapping for the airport.

Section C.4 sets forth the detailed input data that was used to prepare noise exposure contours for 2006 and year 2012 baseline conditions as shown in Chapter Three, *Baseline Noise Exposure*.

Section C.5 summarizes operating information related to the proposed Noise Compatibility Program (NCP) contours that are shown in Chapter Four, *Noise Compatibility Plan*.

C.1 SOUND AND NOISE

Sound is created by a vibrating source that induces vibrations in the air. The vibration produces alternating bands of relatively dense and sparse particles of air, spreading outward from the source like ripples on a pond. Sound waves dissipate with increasing distance from the source. Sound waves can also be reflected, diffracted, refracted, or scattered. When the source stops vibrating, the sound waves disappear almost instantly and the sound ceases.

Sound conveys information to listeners. It can be instructional, alarming, pleasant and relaxing, or annoying. Identical sounds can be characterized by different people, or even by the same person at different times, as desirable or unwanted. Unwanted sound is commonly referred to as “noise.”

Sound can be defined in terms of three components:

1. Level (amplitude)
2. Pitch (frequency)
3. Duration (time pattern)

C.1.1 SOUND LEVEL

The level of sound is measured by the difference between atmospheric pressure (without the sound) and the total pressure (with the sound). Amplitude of sound is like the relative height of the ripples caused by the stone thrown into the water. Although physicists typically measure pressure using the linear Pascal scale, sound is measured using the logarithmic decibel (dB) scale. This is because the range of sound pressures detectable by the human ear can vary from *1 to 100 trillion units*. A logarithmic scale allows us to discuss and analyze noise using more manageable numbers. The range of audible sound ranges from approximately 1 to 140 dB, although everyday sounds rarely rise above about 120 dB. The human ear is extremely sensitive to sound pressure fluctuations. A sound of 140 dB, which is sharply painful to humans, contains *100 trillion (10^{14}) times more* sound pressure than the least audible sound.

By definition, a 10 dB increase in sound is equal to a tenfold (10^1) increase in the mean square sound pressure of the reference sound. A 20 dB increase is a 100-fold (10^2) increase in the mean square sound pressure of the reference sound. A 30 dB increase is a 1,000-fold (10^3) increase in mean square sound pressure.

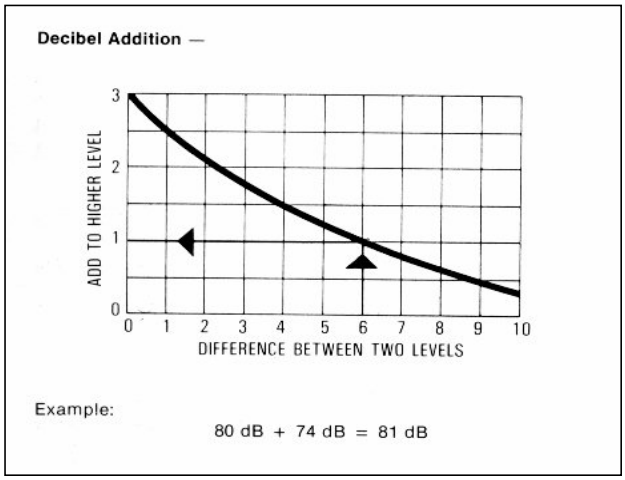
A logarithmic scale requires different mathematics than used with linear scales. The sound pressures of two separate sounds, expressed in dB, are not arithmetically additive. For example, if a sound of 80 dB is added to another sound of 74 dB, the total is a 1 dB increase in the louder sound (81 dB), not the arithmetic sum of 154 dB (See **Exhibit C-1**). If two equally loud noise events occur simultaneously, the sound pressure level from the combined events is 3 dB higher than the level produced by either event alone.

Logarithmic averaging also yields results that are quite different from simple arithmetic. Consider the example shown in **Exhibit C-2**. Two sound levels of equal duration are averaged. One has an Lmax of 100 dB, the other 50 dB. Using conventional arithmetic, the average would be 75 dB. The true result, using logarithmic math, is 97 dB. This is because 100 dB has far more energy than 50 dB (100,000 times as much!) and is overwhelmingly dominant in computing the average of the two sounds.

Human perceptions of changes in sound pressure are less sensitive than a sound level meter. People typically perceive a tenfold increase in sound pressure, a 10 dB increase, as a doubling of loudness. Conversely, a 10 dB decrease in sound pressure is normally perceived as half as loud. In community settings most people perceive a 3 dB increase in sound pressure (a doubling of the sound pressure or energy) as just noticeable. (In laboratory settings, people with good hearing are able to detect changes in sounds of as little as 1 dB.)

Exhibit C-1:

EXAMPLE OF ADDITION OF TWO DECIBEL LEVELS



Source: *Information on Levels*. USEPA. March 1974.

C.1.2 SOUND FREQUENCY

The pitch (or frequency) of sound can vary greatly from a low-pitched rumble to a shrill whistle. If we consider the analogy of ripples in a pond, high frequency sounds are vibrations with tightly spaced ripples, while low rumbles are vibrations with widely spaced ripples. The rate at which a source vibrates determines the frequency. The rate of vibration is measured in units called "Hertz" -- the number of cycles, or waves, per second. One's ability to hear a sound depends greatly on the frequency composition. Humans hear sounds best at frequencies between 1,000 and 6,000 Hertz. Sound at frequencies above 10,000 Hertz (high-pitched hissing) and below 100 Hertz (low rumble) are much more difficult to hear.

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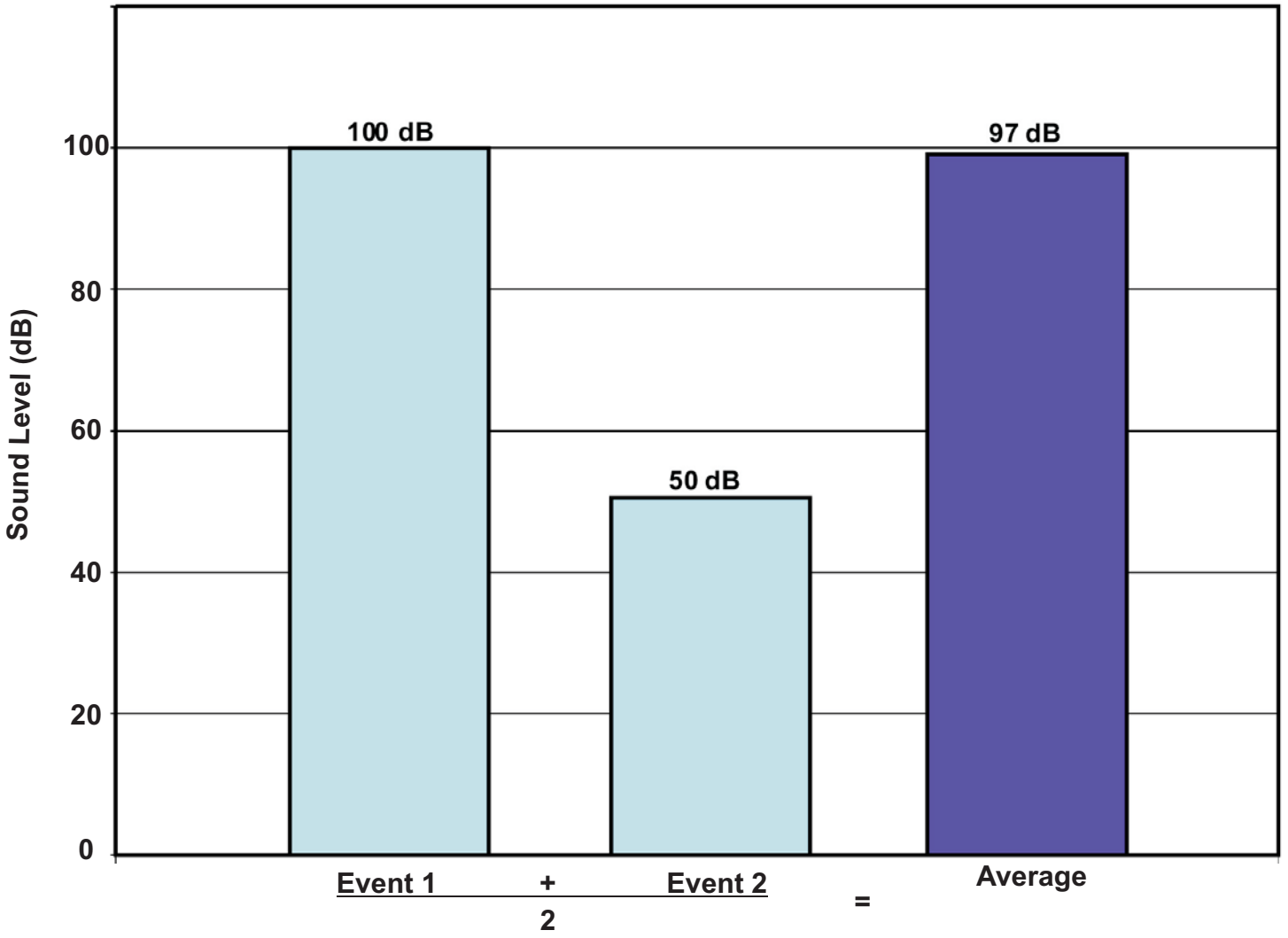
Assume two sound levels of equal duration...
What is the average level?



(100dB + 50dB) / 2 = 97dB

The decibel (dB) scale is logarithmic -
100 dB is 100,000 times more energy than 50 dB!

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If we are attempting to measure sound in a way that approximates what our ears hear, we must give more weight to sounds at the frequencies we hear well and less weight to sounds at frequencies we do not hear well. Acousticians have developed several weighting scales for measuring sound. The A-weighted scale was developed to correlate with the judgments people make about the loudness of sounds. The A-weighted decibel scale (dBA) is used in studies where audible sound is the focus of inquiry. The U.S. Environmental Protection Agency (USEPA) has recommended the use of the A-weighted decibel scale in studies of environmental noise.[1] Its use is required by the FAA in airport noise studies.[2] For the purposes of this analysis, dBA was used as the noise metric and dB and dBA are used interchangeably.

C.1.3 DURATION OF SOUNDS

The duration of sounds – their patterns of loudness and pitch over time – can vary greatly. Sounds can be classified as *continuous* like a waterfall, *impulsive* like a firecracker, or *intermittent* like aircraft overflights. Intermittent sounds are produced for relatively short periods, with the instantaneous sound level during the event roughly appearing as a bell-shaped curve. An aircraft event is characterized by the period during which it rises above the background sound level, reaches its peak, and then recedes below the background level.

C.2 STANDARD NOISE DESCRIPTORS

Given the multiple dimensions of sound, a variety of descriptors, or metrics, have been developed for describing sound and noise. Some of the most commonly used metrics are discussed in this section. They include:

1. Maximum Level (**Lmax**)
2. Time Above Level (**TA**)
3. Sound Exposure Level (**SEL**)
4. Equivalent Sound Level (**Leq**)
5. Day-Night Average Sound Level (**DNL**)

C.2.1 MAXIMUM LEVEL (Lmax)

Lmax is simply the highest sound level recorded during an event or over a given period of time. It provides a simple and understandable way to describe a sound event and compare it with other events. In addition to describing the peak sound level, Lmax can be reported on an appropriate weighted decibel scale (A-weighted, for example) so that it can disclose information about the frequency range of the sound event in addition to the loudness.

Lmax, however, fails to provide any information about the duration of the sound event. This can be a critical shortcoming when comparing different sounds. Even if they have identical Lmax values, sounds of greater duration contain more sound

[1] Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety. U.S. Environmental Protection Agency, Office of Noise Abatement and Control. 1974, P. A-10.

[2] "Airport Noise Compatibility Planning." 14 CFR Part 150, Sec. A150.3.

energy than sounds of shorter duration. Research has demonstrated that for many kinds of sound effects, the total sound energy, not just the peak sound level, is a critical consideration.

C.2.2 TIME ABOVE LEVEL (TA)

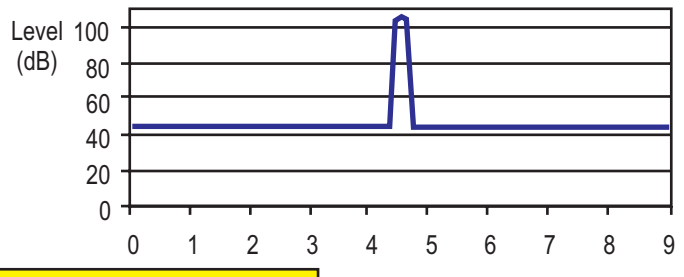
The "time above," or TA, metric indicates the amount of time that sound at a particular location exceeds a given sound level threshold. TA is often expressed in terms of the total time per day that the threshold is exceeded. The TA metric explicitly provides information about the duration of sound events, although it conveys no information about the peak levels during the period of observation.

C.2.3 SOUND EXPOSURE LEVEL (SEL)

The sound exposure level, or SEL metric, provides a way of describing the total sound energy of a single event. In computing the SEL value, all sound energy occurring during the event, within 10 dB of the peak level (Lmax), is mathematically integrated over one second. (Very little information is lost by discarding the sound below the 10 dB cut-off, since the highest sound levels completely dominate the integration calculation.) Consequently, the SEL is always greater than the Lmax for events with a duration greater than one second. SELs for aircraft overflights typically range from five to 10 dB higher than the Lmax for the event.

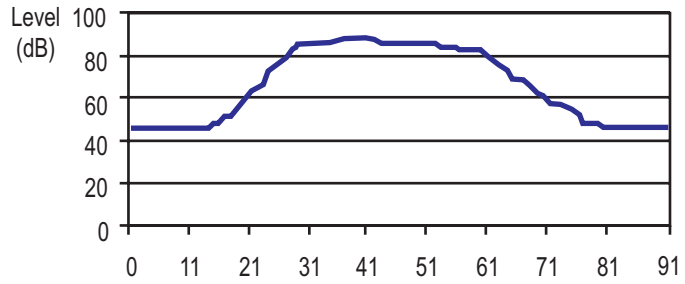
Exhibit C-3 shows graphs of instantaneous sound levels for three different events: an aircraft flyover, roadway noise, and a firecracker. The Lmax and the duration of each event differ greatly. The pop of the firecracker is quite loud, 102 dB but lasts less than a second. The aircraft flyover has a considerably lower Lmax at 90 dB, but the event lasts for over a minute. The Lmax from the roadway noise is even quieter at only 72 dB, but it lasts for 15 minutes. By considering the loudness and the duration of these very different events simultaneously, the SEL metric reveals that the total sound energy of all three is identical. This can be a critical finding for studies where total noise dosage is the focus of study. As it happens, research has shown conclusively that noise dosage is crucial in understanding the effects of noise on animals and humans.

Firecracker



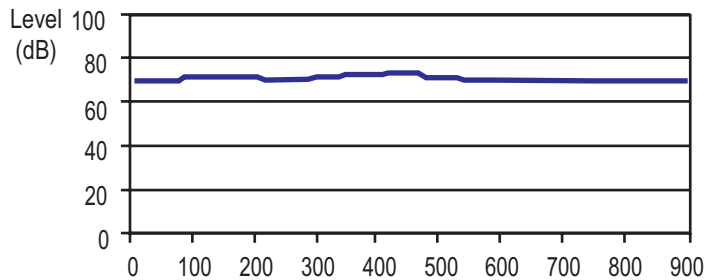
Lmax=102 dB
SEL=100 dB
Leq=105
Event Duration=0.3 seconds

Aircraft Flyover



Lmax=90 dB
SEL=100 dB
Leq=82
Event Duration=70 seconds

Roadway Noise



Lmax=72 dB
SEL=100 dB
Leq=71
Event Duration=900 seconds

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Comparison of Different Types of Sound

Exhibit: C-3

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C.2.4 EQUIVALENT SOUND LEVEL (Leq)

The equivalent sound level (Leq) metric may be used to define cumulative noise dosage, or noise exposure, over a period of time. In computing Leq, the total noise energy over a given period of time, during which numerous events may have occurred, is logarithmically averaged over the time period. The Leq represents the steady sound level that is equivalent to the varying sound levels actually occurring during the period of observation. For example, an 8-hour Leq of 67 dB indicates that the amount of sound energy in all the peaks and valleys that occurred in the 8-hour period is equivalent to the energy in a continuous sound level of 67 dB. Leq is typically computed for measurement periods of 1 hour, 8 hours, or 24 hours, although any time period can be specified.

Exhibit C-4 shows the relationship of Leq to Lmax and SEL. In this example, four noise events occur during one hour. The SELs for each event range from 90dB to 108 dB. The Leq for this one-hour period would be 75 dB. Note that this Leq value is derived from only four events during the one-hour period. When converted to SELs, the sound events accounted for only four seconds during the hour; silence occurred during the remaining 3,596 seconds. This again indicates the dominance of loud events in noise summation and averaging computations.

Leq is a critical noise metric for many kinds of analysis where total noise dosage, or noise exposure, is under investigation. As already noted, noise dosage is important in understanding the effects of noise on both animals and people. Indeed, research has led to the formulation of the "equal energy rule." This rule states that it is the total acoustical energy to which people are exposed that explains the effects the noise will have on them. That is, a very loud noise with a short duration will have the same effect as a lesser noise with a longer duration if they have the same total sound energy.

C.2.5 DAY-NIGHT AVERAGE SOUND LEVEL (DNL)

The DNL metric is really a variation of the 24-hour Leq metric. Like Leq, the DNL metric describes the total noise exposure during a given period. Unlike Leq, however, DNL, by definition, can only be applied to a 24-hour period. In computing DNL, an extra weight of 10 dB is assigned to any sound levels occurring between the hours of 10:00 p.m. and 7:00 a.m. This is intended to account for the greater annoyance that nighttime noise is presumed to cause for most people. Recalling the logarithmic nature of the dB scale, this extra weight treats one nighttime noise event as equivalent to 10 daytime events of the same magnitude.

As with Leq, DNL values are strongly influenced by the loud events. For example, 30 seconds of sound of 100 dB, followed by 23 hours, 59 minutes, and 30 seconds of silence would compute to a DNL value of 65 dB. If the 30 seconds occurred at night, it would yield a DNL of 75 dB.

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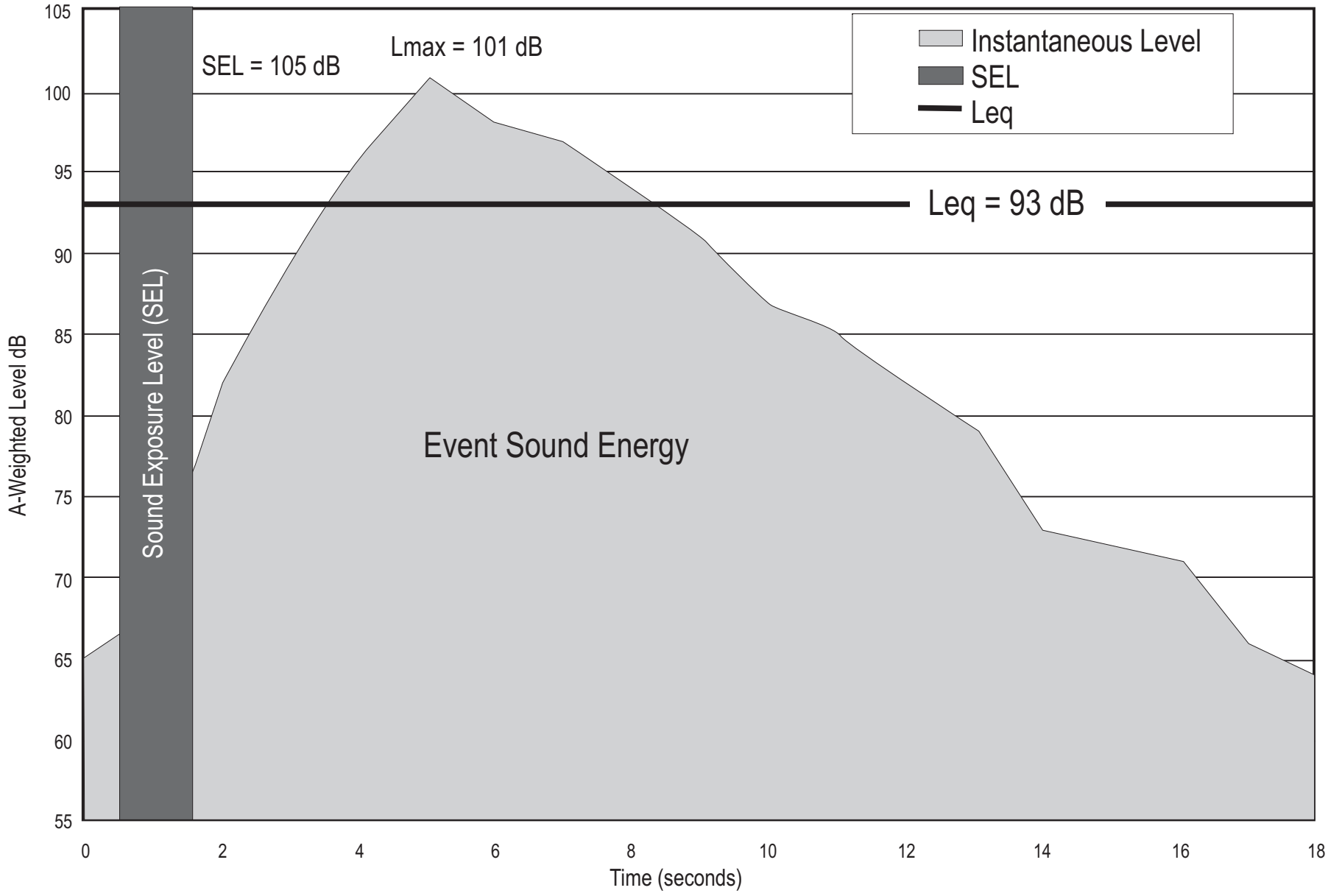

FAR Part 150 Study
Port Columbus International Airport

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Relationship Among Sound Metrics

Exhibit: **C-4**

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This example can be roughly equated to an airport noise environment. Recall that an SEL is the mathematical compression of a noise event into one second. Thus, 30 SELs of 100 dB during a 24-hour period would equal DNL 65 dB, or DNL 75 dB if they occurred at night. This situation could actually occur in places around a real airport. If the area experienced 30 overflights during the day, each of which produced an SEL of 100 dB, it would be exposed to DNL 65 dB. Recalling the relationship of SEL to the peak noise level (Lmax) of an aircraft overflight, the Lmax recorded for each of those overflights (the peak level a person would actually hear) would typically range from 90 to 95 dB.

C.2.5.1 Federal Requirements to Use DNL in Environmental Noise Studies

DNL is the standard metric used for environmental noise analysis in the U.S. This practice originated with the USEPA's effort to comply with the Noise Control Act of 1972. The USEPA designated a task group to "consider the characterization of the impact of airport community noise and develop a community noise exposure measure."[3] The task group recommended using the DNL metric. The USEPA accepted the recommendation in 1974, based on the following considerations:

1. The measure is applicable to the evaluation of pervasive, long-term noise in various defined areas and under various conditions over long periods of time.
2. The measure correlates well with known effects of the noise environment on individuals and the public.
3. The measure is simple, practical, and accurate.
4. Measurement equipment is commercially available.
5. The metric at a given location is predictable, within an acceptable tolerance, from knowledge of the physical events producing the noise.[4]

Soon thereafter, the Department of Housing and Urban Development (HUD), Department of Defense, and the Veterans Administration adopted the use of DNL.

At about the same time, the Acoustical Society of America developed a standard (ANSI S3.23-1980) which established DNL as the preferred metric for outdoor environments. This standard was reevaluated in 1990 and they reached the same conclusions regarding the use of DNL (ANSI S12.40-1990).

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[3] *Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety.* U.S. Environmental Protection Agency, Office of Noise Abatement and Control. 1974, P. A-10.

[4] *Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety*. U.S. Environmental Protection Agency, Office of Noise Abatement and Control. 1974, Pp. A-1–A-23.

In 1980, the Federal Interagency Committee on Urban Noise (FICUN) met to consolidate Federal guidance on incorporating noise considerations in local land use planning. The committee selected DNL as the best noise metric for the purpose, thus endorsing the USEPA's earlier work and making it applicable to all Federal agencies.[5]

In response to the requirements of the Aviation Safety and Noise Abatement (ASNA) Act of 1979 and the recommendations of FICUN and USEPA, the FAA established DNL in 1981 as the single metric for use in airport noise and land use compatibility planning. This decision was incorporated into the final rule implementing ASNA, Federal Aviation Regulation FAR Part 150, in 1985.

In the early 1990s, Congress authorized the creation of a new interagency committee to study airport noise issues. The Federal Interagency Committee on Noise (FICON) was formed with membership from the USEPA, the FAA, the U.S. Air Force, the U.S. Navy, HUD, the Department of Veterans Affairs (VA), and others. FICON concluded in its 1992 report that Federal agencies should "continue the use of the DNL metric as the principal means for describing long term noise exposure of civil and military aircraft operations."[6] FICON further concluded that there were no new sound descriptors of sufficient scientific standing to substitute for the DNL cumulative noise exposure metric.[7]

In 1993, the FAA issued its *Report to Congress on Effects of Airport Noise*. Regarding DNL, the FAA stated, "Overall, the best measure of the social, economic, and health effects of airport noise on communities is the Day-Night Average Sound Level (DNL)."[8]

C.3 GENERAL INFORMATION

The same noise metrics and noise model was used to compute all noise contours and other evaluations prepared for the Part 150 Study Update for CMH.

C.3.1 NOISE METRICS

The FAA has stipulated that noise exposure maps prepared for Part 150 studies will be based on the annual DNL. This noise metric (measurement description) was developed under the auspices of the USEPA and embodies extensive information regarding the physical description of transportation noise as related to human annoyance in residential areas. DNL is defined as the average A-weighted sound level during a 24-hour period with a 10 dB penalty applied to noise events that occur at night (10:00 p.m. to 6:59 a.m.). Noise contours are lines connecting points of equal noise level; typically, for Part 150 studies, these levels are 65, 70, and 75 DNL. Airports may choose to show noise impacts at levels lower than

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5 *Guidelines for Considering Noise in Land Use Planning and Control*. Federal Interagency Committee on Urban Noise (FICUN). 1980.

6 *Federal Agency Review of Selected Airport Noise Analysis Issues*. Federal Interagency Committee on Noise (FICON). August 1992, Pp. 3-1.

7 *Federal Agency Review of Selected Airport Noise Analysis Issues*, Technical Report, Volume 2. Federal Interagency Committee on Noise (Technical). August 1992, Pp. 2-3.

8 *Report to Congress on Effects of Airport Noise*. Federal Aviation Administration. 1993, P. 1.

65 DNL. Showing noise levels below 65 DNL does not change the FAA's policy on eligibility for mitigation; rather it provides a broader picture of noise exposure in the community. This information is useful in land use planning exercises. For this Part 150 Study Update the 60 DNL is shown for land use planning purposes.

C.3.2 NOISE MODEL

The noise levels were computed during this study using Version 6.2 of the Integrated Noise Model (INM), which was the latest version of the model at the time the study was initiated. The INM was developed under the guidance of the FAA and is the only model generally approved by the FAA for use in Part 150 studies. The noise pattern calculated by the INM for an airport is a function of several factors, including; the number of aircraft operations during the period evaluated, the types of aircraft flown, the time of day when they are flown, the way they are flown, how frequently each runway is used for landing and takeoff, and the routes of flight used to and from the runways. Substantial variations in any one of these factors may, when extended over a long period of time, cause marked changes to the noise pattern.

C.3.3 COMPARABILITY OF CONDITIONS

Total operations used in the modeling of the Existing (2006) Baseline condition are based on actual operating levels for the period of May 2005 through April 2006. The total annual operations during this period was 196,592. The FAA's Terminal Area Forecast projects annual operations to be approximately 197,093 operations for calendar year 2007. Based on this, the operating levels used to prepare the Existing (2006) Baseline are essentially the same as the projected operating levels for 2007 (<1 percent difference). As a result of the relocation to Concourse A of Southwest Airlines (from Concourse C on the north side of the terminal) and Continental Airlines (from Concourse B on the northeast side of the terminal), the use of the south runway (Runway 10R/28L) is higher in 2007 than it was in 2005 and 2006. Analysis of the runway use data from June 2006 to June 2007 has resulted in modifications to runway use percentages that are reflective of the conditions that are present today and expected to continue in the future. In addition, no significant changes in runway layout, fleet mix, or flight tracks have occurred therefore the Existing (2006) Baseline condition is representative of 2007 operating conditions.

C.4 BASELINE NOISE EXPOSURE PATTERNS

Several types of operational information are required to produce baseline noise exposure patterns for the airport. These include estimates of the numbers of actual operations by specific aircraft types at different periods of the day, flight path locations, runway and flight path utilization, and aircraft operating characteristics.

C.4.1 RUNWAY DEFINITION

CMH has two east/west parallel runways (10L/28R and 10R/28L) spaced 2,800 feet apart. Runway 10R/28L is the longest runway on the airfield at 10,125 feet in length and is 150 feet wide. Runway 10L/28R is 8,000 feet long and 150 feet wide.

All existing runway ends are equipped with a CAT I ILS. **Exhibit C-5** shows the existing airfield layout. The following provides the current runways and lengths at CMH that were included in the Existing (2006) Baseline:

Runway	Length (feet)
10L/28R	8,000
10R/28L	10,125

The FAA is currently conducting an Environmental Impact Statement (EIS) to assess the impacts of relocating the south runway (Runway 10R/28L) 702 feet south of its current location. If approved, construction is anticipated to be complete by 2012. In an effort to analyze and develop noise abatement recommendations for the future, the CRAA has chosen to incorporate the proposed 702-foot relocation of Runway 10R/28L in the Future (2012) Baseline condition. The proposed runway would be 10,113 feet and would be separated from the north runway by 3,502 feet. For discussion purposes in this document the proposed relocated runway will be referred to as Runway 10X/28X. The runway layout that was modeled for the Future (2012) Baseline is shown below:

Runway	Length (feet)
10L/28R	8,000
10X/28X	10,113

C.4.2 NUMBER OF OPERATIONS AND FLEET MIX

The number of annual operations at CMH was based on Air Traffic Control Tower (ATCT) counts for the period from May 2005 through April 2006. During that period, 196,592 annual operations occurred at CMH. When these operations are divided by 365, the result is 540 average-annual day operations. Specific aircraft types and times of operation were developed from a combination of Official Airline Guide (OAG) data, landing fee reports, and the Airports Noise and Operations Management System (ANOMS)[9] data for the same period. **Table C-1**, which provides a summary of the average annual day operations by aircraft category and time of day, shows that commuter jets made up the majority (42 percent) of all operations at CMH for the Existing (2006) Baseline period. **Table C-2**, shows the average daily number of arrivals and departures by the individual aircraft types. Aircraft that were most commonly flown at CMH during the Existing (2006) Baseline period include the Embraer 145, the Embraer 170, and the Canadair Regional Jet.

[9] The CMH ANOMS system collects radar data for operations arriving, departing and enroute through CMH airspace. The data collected includes runway use, aircraft type, operation type, time of arrival or departure, airline, and flight track location.

Table C-1
AVERAGE DAY OPERATIONS
EXISTING (2006) BASELINE
Port Columbus International Airport

Aircraft Category	Arrivals		Departures		Total		Grand Total	Percent of Total
	Day	Night	Day	Night	Day	Night		
Large Jet	44	14	52	6	96	20	116	21%
Commuter Jet	91	23	93	21	184	44	228	42%
Commuter Prop	14	2	14	2	28	4	32	6%
General Aviation Jet	36	4	36	4	72	8	80	15%
General Aviation Prop	38	4	32	4	76	8	84	16%
Total	**223**	**47**	**227**	**37**	**456**	**84**	**540**	**100%**

Day: 7:00 a.m. to 9:59 p.m.
Night: 10:00 p.m. to 6:59 a.m.

Source: Landing Fee Reports, ATCT records, Landrum & Brown, 2007.

Table C-2
AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE –
EXISTING (2006) BASELINE
Port Columbus International Airport

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
Large Jet							
Airbus 319	A319	3	0	3	0	6	0
Airbus 320	A32023	1	2	3	0	4	2
Boeing 737-300	737300	10	4	12	2	22	6
Boeing 737-300	7373B2	2	0	1	1	3	1
Boeing 737-400	737400	2	1	3	0	5	1
Boeing 737-500	737500	1	0	1	0	2	0
Boeing 737-700	737700	9	3	11	1	20	4
Boeing 737-800	737800	2	0	2	0	4	0
Boeing 757-300	757300	1	0	1	0	2	0
McDonnell-Douglas DC-9	DC93LW	4	1	4	1	8	2
McDonnell-Douglas DC-9	DC95HW	1	1	2	0	3	1
McDonnell-Douglas MD-82	MD82	1	0	1	0	2	0
McDonnell-Douglas MD-83	MD83	5	2	6	1	11	3
Military Tanker	KC135R	2	0	2	0	4	0
Subtotal		***44***	***14***	***52***	***6***	***96***	***20***
Commuter Jet							
BAe Avro RJ-85	BAE146	2	0	2	0	4	0
Dessault Falcon 2000	CL600	2	0	2	0	4	0
Canadair Regional Jet / Embraer ERJ-170	CL601	23	4	24	3	47	7
Embraer 135 / 145	EMB145	10	1	9	2	19	3
Embraer 145	EMB14L	44	15	44	15	88	30
Cessna Citation / BAE125 Hawker	LEAR35	2	1	3	0	5	1
Cessna 560	MU3001	8	2	9	1	17	3
Subtotal		***91***	***23***	***93***	***21***	***184***	***44***
Commuter Prop							
Twin-Engine Prop	BEC58P	3	1	3	1	6	2
Beech 1900D	DHC6	5	0	5	0	10	0
Bombardier Dash-8 Series	DHC8	4	1	4	1	8	2
Saab 340B	SF340	2	0	2	0	4	0
Subtotal		***14***	***2***	***14***	***2***	***28***	***4***

Table C-2, *Continued*
AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE –
EXISTING (2006) BASELINE
Port Columbus International Airport

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
General Aviation Jet							
Business Jet	CL600	5	2	5	2	10	4
Business Jet	CNA500	1	1	2	0	3	1
Business Jet	FAL20	2	0	2	0	4	0
Business Jet	GIIB	2	0	2	0	4	0
Business Jet	GIV	3	0	2	1	5	1
Business Jet	LEAR25	9	0	9	0	18	0
Business Jet	LEAR35	7	1	7	1	14	2
Business Jet	MU3001	7	0	7	0	14	0
Subtotal		***36***	***4***	***36***	***4***	***72***	***8***
General Aviation Prop							
Twin-Engine Prop	BEC58P	6	2	6	2	12	4
Twin-Engine Turbo Prop	CNA441	3	0	3	0	6	0
Twin-Engine Turbo Prop	DHC6	2	1	2	1	4	2
Single-Engine Prop	PA28	2	0	2	0	4	0
Twin-Engine Prop	PA31	1	0	1	0	2	0
Single-Engine Prop	GASEPF	15	1	15	1	30	2
Single-Engine Prop	GASEPV	9	0	9	0	18	0
Subtotal		***38***	***4***	***32***	***4***	***76***	***8***
Grand Total		**223**	**47**	**227**	**37**	**456**	**84**

Source: FAA Tower Counts, Official Airline Guide (OAG), and Landing Fee Reports, Landrum & Brown, 2007.

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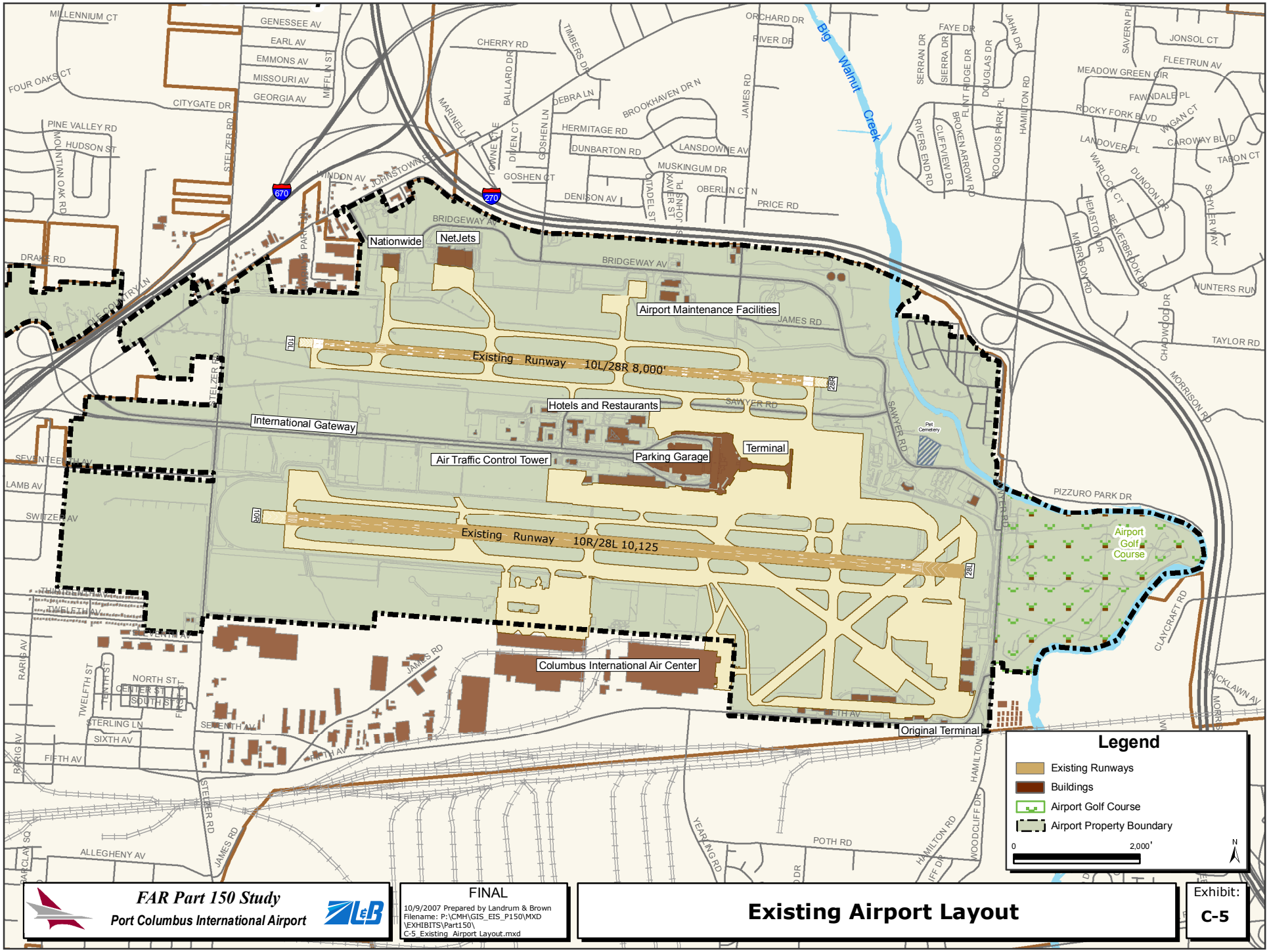

FAR Part 150 Study

Port Columbus International Airport

FINAL

10/9/2007 Prepared by Landrum & Brown
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C-5_Existing_Airport_Layout.mxd

Existing Airport Layout

Exhibit:
C-5

Table C-3 and **Table C-4** provide the operating levels and fleet mix for the Future (2012) Baseline. The 2012 operations are based on the forecast prepared for the Part 150 Study and the ongoing EIS. The forecast was approved on January 9, 2007 and is included in Appendix J. The forecast is based upon aviation industry trends and specific airline activity at CMH. The Future (2012) Baseline includes 241,600 annual operations or 662 average annual operations, an increase of 22.9 percent from the Existing (2006) Baseline operating levels. The forecast shows a projected increase in the percentage of commuter jet aircraft as airlines are expected to continue the trend of replacing large jets with commuter jets. The percentage of commuter jets in the fleet mix increases from 42 percent in the Existing (2006) Baseline to 51 percent in the Future (2012) Baseline. For large jets, there is an overall increase in total numbers, but the percentage decreases from 21 percent in the Existing (2006) Baseline to 19 percent in the Future (2012) Baseline. Embraer 145s, Embraer 170s and Canadair Regional Jets are expected to continue to be the most common aircraft at CMH.

Table C-3
AVERAGE DAY OPERATIONS – FUTURE (2012) BASELINE
Port Columbus International Airport

Aircraft Category	Arrivals		Departures		Total		Grand Total	Percent of Total
	Day	Night	Day	Night	Day	Night		
Large Jet	49	15	55	9	104	24	128	19%
Commuter Jet	144	26	141	29	285	55	340	51%
Commuter Prop	5	2	5	2	10	4	14	2%
General Aviation Jet	39	6	39	6	78	12	90	14%
General Aviation Prop	41	4	41	4	82	8	90	14%
Total	**278**	**53**	**281**	**50**	**559**	**103**	**662**	**100%**

Day: 7:00 a.m. to 9:59 p.m.

Night: 10:00 p.m. to 6:59 a.m.

Source: FAA Tower Counts, Official Airline Guide (OAG), and Landing Fee Reports, Landrum & Brown, 2007.

Table C-4
AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE -
FUTURE (2012) BASELINE
Port Columbus International Airport

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
Large Jet							
Boeing 737-300	737300	11	4	12	3	23	7
Boeing 737-300	7373B2	3	0	3	0	6	0
Boeing 737-400	737400	4	1	5	0	9	1
Boeing 737-500	737500	3	1	3	1	6	2
Boeing 737-700	737700	14	3	14	3	28	6
Boeing 737-800	737800	5	1	6	0	11	1
Boeing 757-300	757300	1	0	1	0	2	0
Airbus 320	A320	0	1	1	0	1	1
Airbus 320	A32023	0	1	1	0	1	1
McDonnell-Douglas DC-9	DC93LW	5	1	5	1	10	2
Military Tanker	KC135R	1	0	1	0	2	0
McDonnell-Douglas MD-83	MD83	2	2	3	1	5	3
Subtotal		***49***	***15***	***55***	***9***	***104***	***24***
Commuter Jet							
BAe Avro RJ-85	BAE146	1	0	1	0	2	0
Dessault Falcon 2000	CL600	3	0	3	0	6	0
Canadair Regional Jet / Embraer ERJ-170 / 190	CL601	43	4	42	5	85	9
Embraer 135 / 145	EMB145	6	0	4	2	10	2
Embraer 145	EMB14L	62	17	62	17	124	34
Commuter Jet	GIV	3	0	2	1	5	1
Commuter Jet	LEAR25	4	2	6	0	10	2
Cessna Citation / BAE125 Hawker	LEAR35	10	1	10	1	20	2
Cessna 560	MU3005	12	2	11	3	23	5
Subtotal		***144***	***26***	***141***	***29***	***285***	***55***
Commuter Prop							
Beech 1900D	DHC6	2	1	2	1	4	2
Bombardier Dash-8 Series	DHC8	1	1	1	1	2	2
Commuter Turbo Prop	HS748A	2	0	2	0	4	0
Subtotal		***5***	***2***	***5***	***2***	***10***	***4***
General Aviation Jet							
Business Jet	CIT3	3	0	3	0	6	0
Business Jet	CL600	5	2	5	2	10	4
Business Jet	CNA500	1	1	2	0	3	1
Business Jet	FAL20	2	0	2	0	4	0
Business Jet	GIIB	2	0	2	0	4	0
Business Jet	GIV	3	0	2	1	5	1
Business Jet	LEAR25	10	0	9	1	19	1
Business Jet	LEAR35	6	3	7	2	13	5
Business Jet	MU3001	7	0	7	0	14	0
Subtotal		***39***	***6***	***39***	***6***	***78***	***12***

Table C-4, C*ontinued*

**AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE -
FUTURE (2012) BASELINE
Port Columbus International Airport**

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
General Aviation Prop							
Twin-Engine Prop	BEC58P	11	2	11	2	22	4
Twin-Engine Turbo Prop	CNA441	3	0	3	0	6	0
Single-Engine Prop	GASEPF	15	2	15	2	30	4
Single-Engine Prop	GASEPV	9	0	9	0	18	0
Single-Engine Prop	PA28	2	0	2	0	4	0
Twin-Engine Prop	PA31	1	0	1	0	2	0
Subtotal		***41***	***4***	***41***	***4***	82	8
Grand Total		**278**	**53**	**281**	**50**	**559**	**103**

Daytime = 7:00 a.m. – 9:59 p.m.
Nighttime = 10:00 p.m. – 6:59 a.m.

Source: Landing Fee Reports, ATCT records, ANOMS data, Landrum & Brown, 2007.

C.4.3 RUNWAY END UTILIZATION

Average annual runway end utilization was derived from analysis of ANOMS data from 2005 through 2007. Runway use was derived for all aircraft categories except large jets from ANOMS data from April 1, 2005 through March 31, 2006. Runway use for large jets was supplemented with ANOMS data from June 2, 2006 through September 16, 2006 to include changes that occurred when Southwest Airlines relocated their operations from Concourse C to Concourse A. This resulted in increased use of the south runway by large jets. **Table C-5** summarizes the percentage of use by each aircraft category on the various runways at CMH during both the daytime (7:00 a.m. – 9:59 p.m.) and nighttime (10:00 p.m. – 6:59 a.m.). The proposed relocation of Runway 10R/28L is not expected to affect runway use percentages, therefore Table C-5 is also representative of Future (2012) Baseline conditions.

During the daytime (7:00 a.m. to 9:59 p.m.), the airport is operated in one of two operating configurations—west flow (approximately 75 percent of the time) or east flow (approximately 25 percent of the time). The primary flow during the Existing (2006) Baseline period was west flow due to the prevailing southwest winds. When the airport operated in this configuration, aircraft arrive from the east heading west and depart to the west on Runways 28L and 28R. During east flow operations, aircraft arrive from the west heading east and depart to the east on Runways 10L and 10R.

Table C-5
RUNWAY END UTILIZATION
EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

Daytime Arrivals				
Aircraft Category	**10L**	**10R/10X**	**28L/28X**	**28R**
Large Jet	8.4%	16.6%	47.9%	27.1%
Commuter Jet	15.8%	7.3%	22.4%	54.5%
Commuter Prop	12.8%	11.3%	30.5%	45.4%
General Aviation Jet	5.0%	17.5%	56.8%	20.7%
General Aviation Prop	5.7%	17.6%	54.3%	22.4%
Nighttime Arrivals				
Aircraft Category	**10L**	**10R/10X**	**28L/28X**	**28R**
Large Jet	10.2%	40.3%	38.5%	11.0%
Commuter Jet	24.8%	9.6%	20.2%	45.4%
Commuter Prop	14.6%	28.0%	33.2%	24.2%
General Aviation Jet	6.2%	25.6%	49.2%	19.0%
General Aviation Prop	12.0%	37.1%	31.9%	19.0%
Daytime Departures				
Aircraft Category	**10L**	**10R/10X**	**28L/28X**	**28R**
Large Jet	5.5%	16.2%	53.1%	25.2%
Commuter Jet	13.5%	8.4%	28.6%	49.5%
Commuter Prop	12.6%	11.7%	33.8%	41.9%
General Aviation Jet	4.4%	16.8%	59.1%	19.7%
General Aviation Prop	5.9%	17.6%	54.5%	22.0%
Nighttime Departures				
Aircraft Category	**10L**	**10R/10X**	**28L/28X**	**28R**
Large Jet	4.6%	13.3%	55.3%	26.8%
Commuter Jet	9.5%	11.4%	21.3%	57.8%
Commuter Prop	4.6%	20.6%	43.1%	31.7%
General Aviation Jet	4.3%	19.8%	57.7%	18.2%
General Aviation Prop	4.3%	23.3%	46.0%	26.4%

Daytime = 7:00 a.m. – 9:59 p.m.

Nighttime = 10:00 p.m. – 6:59 a.m.

Note: 10X/28X denotes the proposed relocated runway 10R/28L
Source: 2005, 2006 ANOMS data, Landrum & Brown, 2007.

C.4.4 FLIGHT TRACKS AND UTILIZATION

A flight track is the path over the ground as an aircraft flies to or from the airport. For this Part 150 Study, the existing flight tracks were evaluated to ensure that the flight tracks used in the modeling of aircraft noise are representative of where aircraft are flying at CMH. ANOMS radar data was gathered for the period from May 2005 through April 2006 and analyzed to verify the location, density, and width of existing flight corridors. Consolidated flight tracks were developed from this radar data and used in the INM to model the flight corridors present around the airport.

Exhibit C-6, **Exhibit C-7**, and **Exhibit C-8** depict the flight corridors representative of arrival and departure flight corridors in east flow operations for all large jets, regional jets and propeller aircraft, respectively. **Exhibit C-9**, **Exhibit C-10**, and **Exhibit C-11** depict flight corridors for west flow operations. **Exhibit C-12** depicts flight tracks representative of touch-and-go operations. In order to model the flight corridors in INM, consolidated flight tracks were developed from this radar data. The tracks are composed of both backbone[10] and sub-tracks that account for the dispersion of operations across a corridor of flight, rather than along a single constrained path. This is most useful at airports where wide flight corridors are present, such as are used by departures at CMH. The use of sub-tracks for the definition of baseline noise patterns allows a more definitive description of overall operating characteristics. **Table C-6**, **Table C-7**, and **Table C-8** provide the proportion of operations assigned to each of the flight tracks indicated on the exhibits for the Existing (2006) Baseline condition.

Current procedures instruct departures by jet aircraft to follow runway heading until reaching five miles or 3,500 feet Mean Sea Level (MSL) before turning on course. This results in aircraft being at a higher altitude before turning over residential land uses. Propeller aircraft departures, in both east and west flow, turn as soon as directed by ATCT to allow jet aircraft to depart more quickly. The arrival corridors for jet and propeller aircraft generally follow a straight in procedure on their final approach for approximately five nautical miles.

There are two components to flight tracks used for noise modeling, track definition and percentage of use. The proposed relocation of Runway 10R/28L included in the Future (2012) Baseline would not affect the percentage of flight track utilization. However it would affect location of flight tracks in relation to the proposed relocated runway. **Exhibits C-13 through C-18** show flight tracks modeled for the Future (2012) Baseline condition, which includes the proposed relocated runway. The touch-and-go tracks shown on Exhibit C-12 remained the same for the Future (2012) Baseline. **Table C-9**, **Table C-10**, and **Table C-11** provide the proportion of operations assigned to each of the flight tracks indicated on the exhibits for the Future (2012) Baseline condition.

[10] The FAA's INM v6.2 uses a backbone and sub-track system to represent dispersed flight corridors. A backbone and sub-tracks are a set of flight tracks that represent a wide corridor, allowing the user to define a percentage of use for each sub-track. The use of this tool results in more accurately modeled flight corridors.

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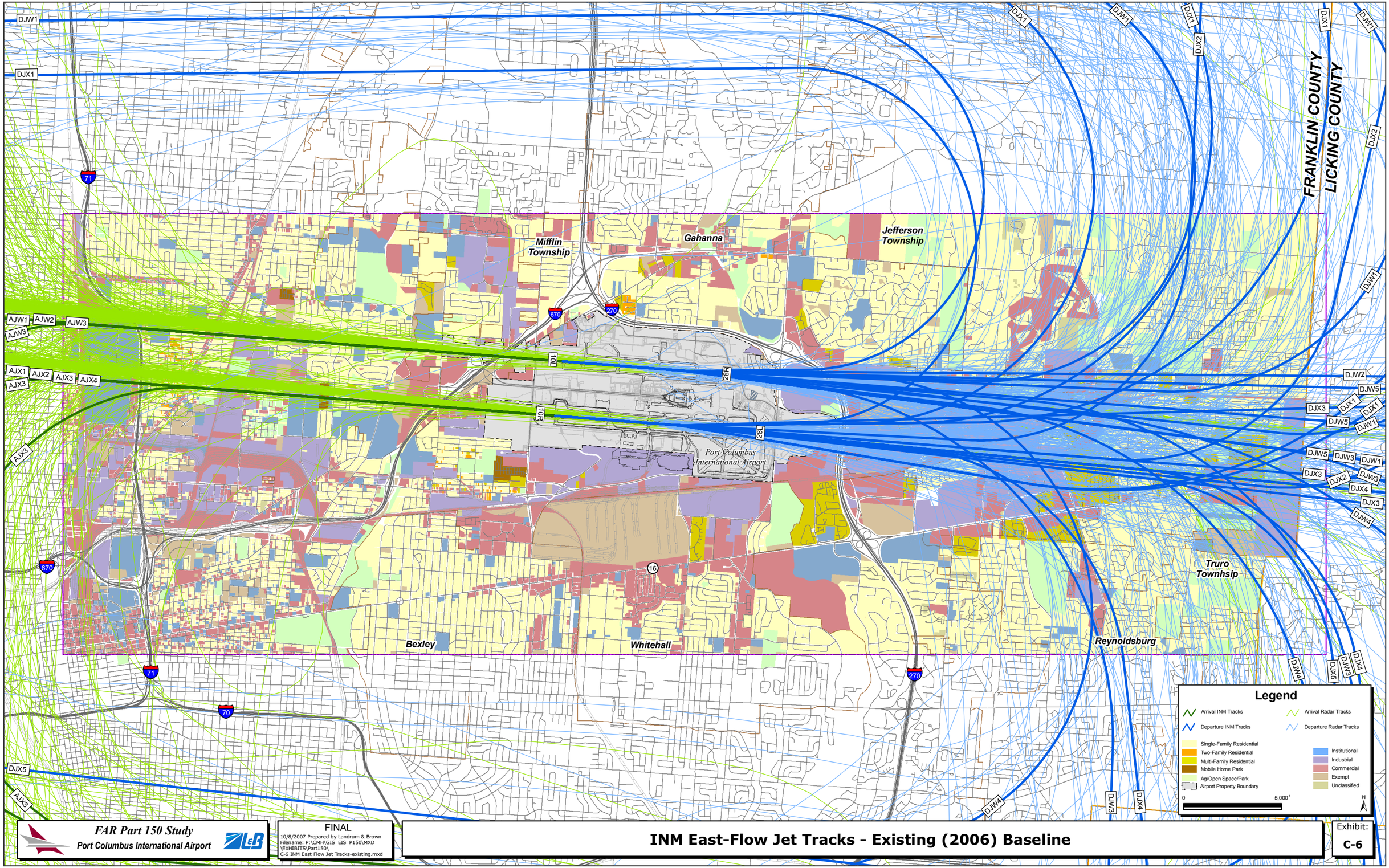

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INM East-Flow Jet Tracks - Existing (2006) Baseline

Exhibit: **C-6**

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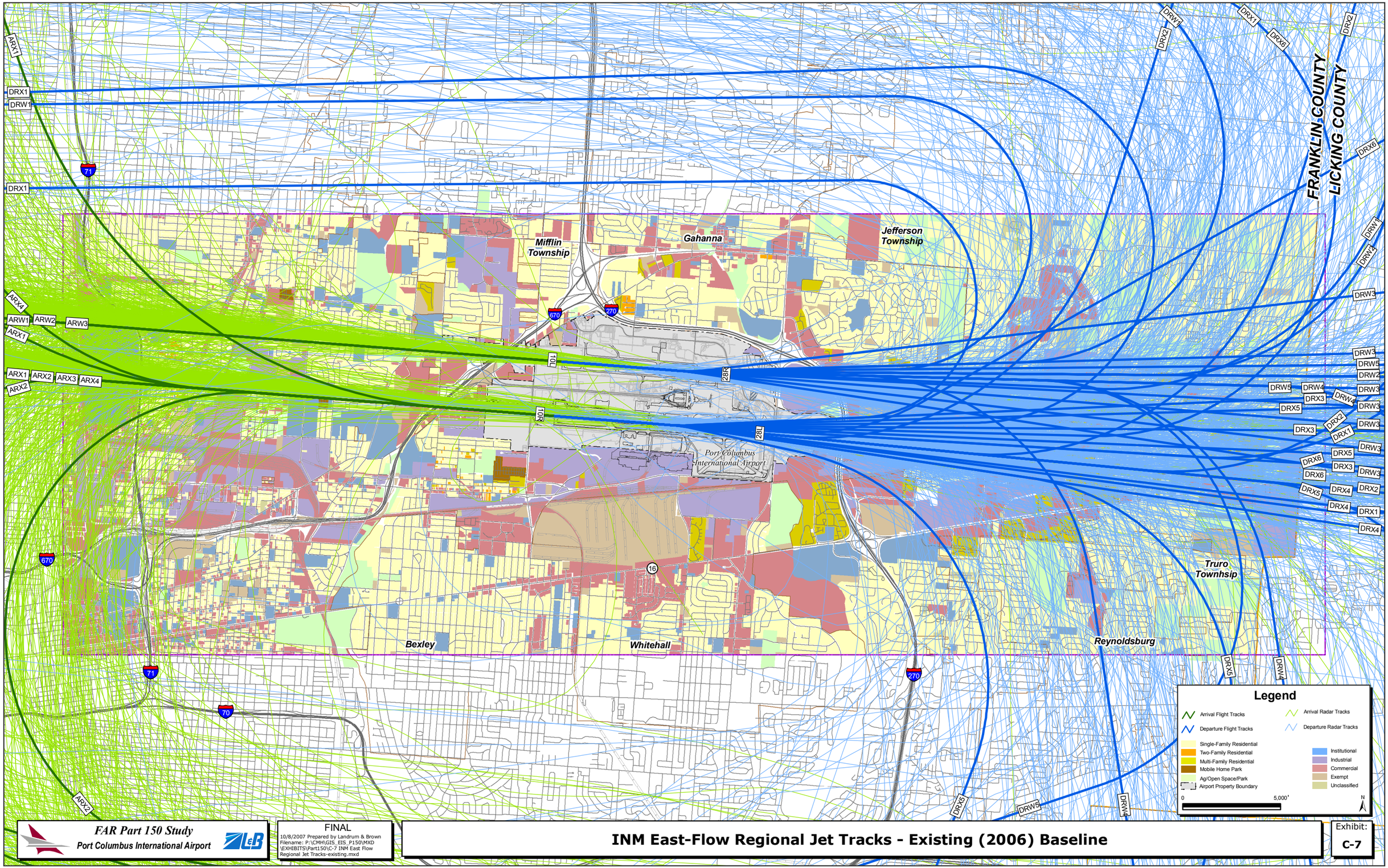

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Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-7 INM East Flow Regional Jet Tracks-existing.mxd

INM East-Flow Regional Jet Tracks - Existing (2006) Baseline

Exhibit:
C-7

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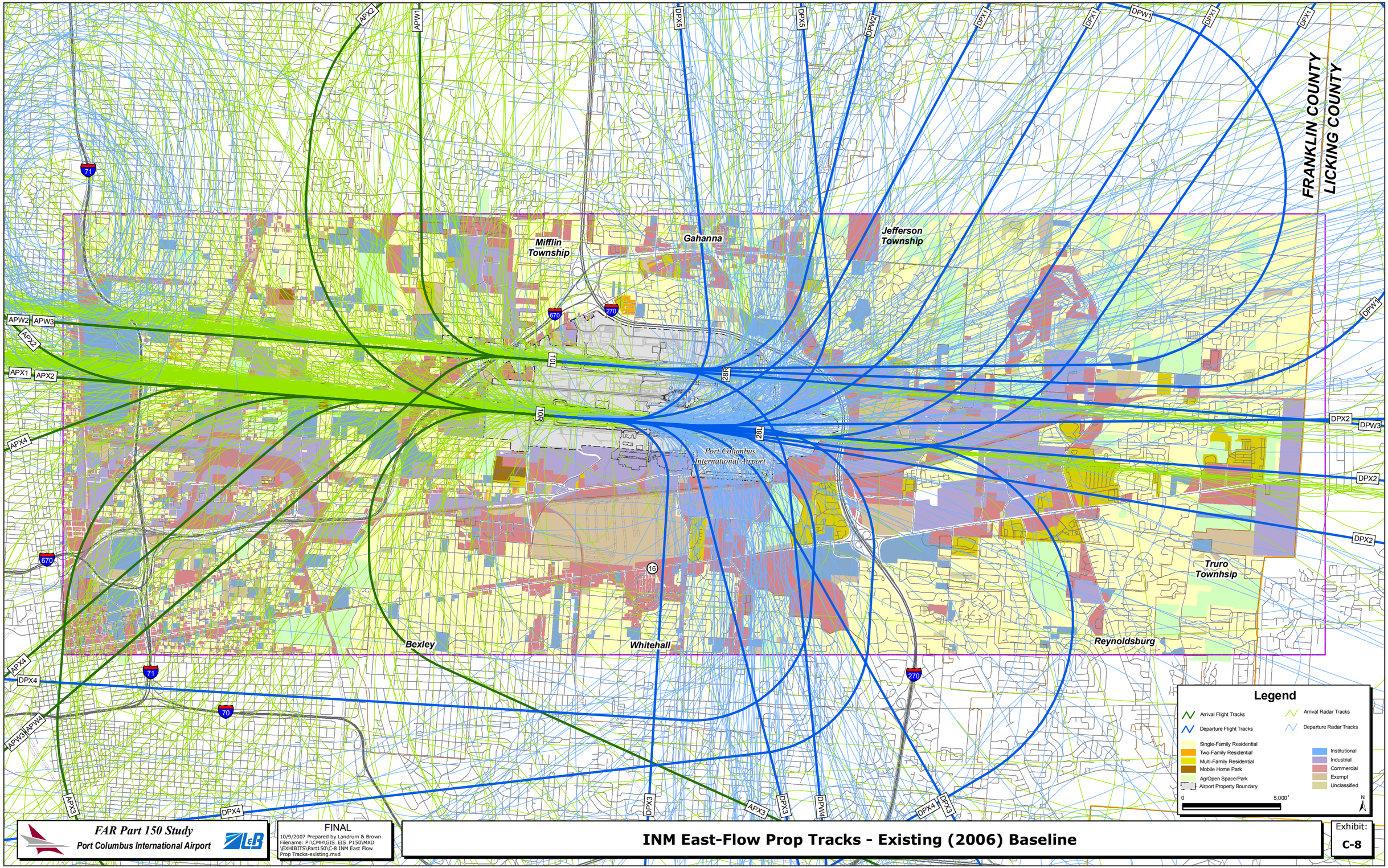

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INM East-Flow Prop Tracks - Existing (2006) Baseline

Exhibit:
C-8

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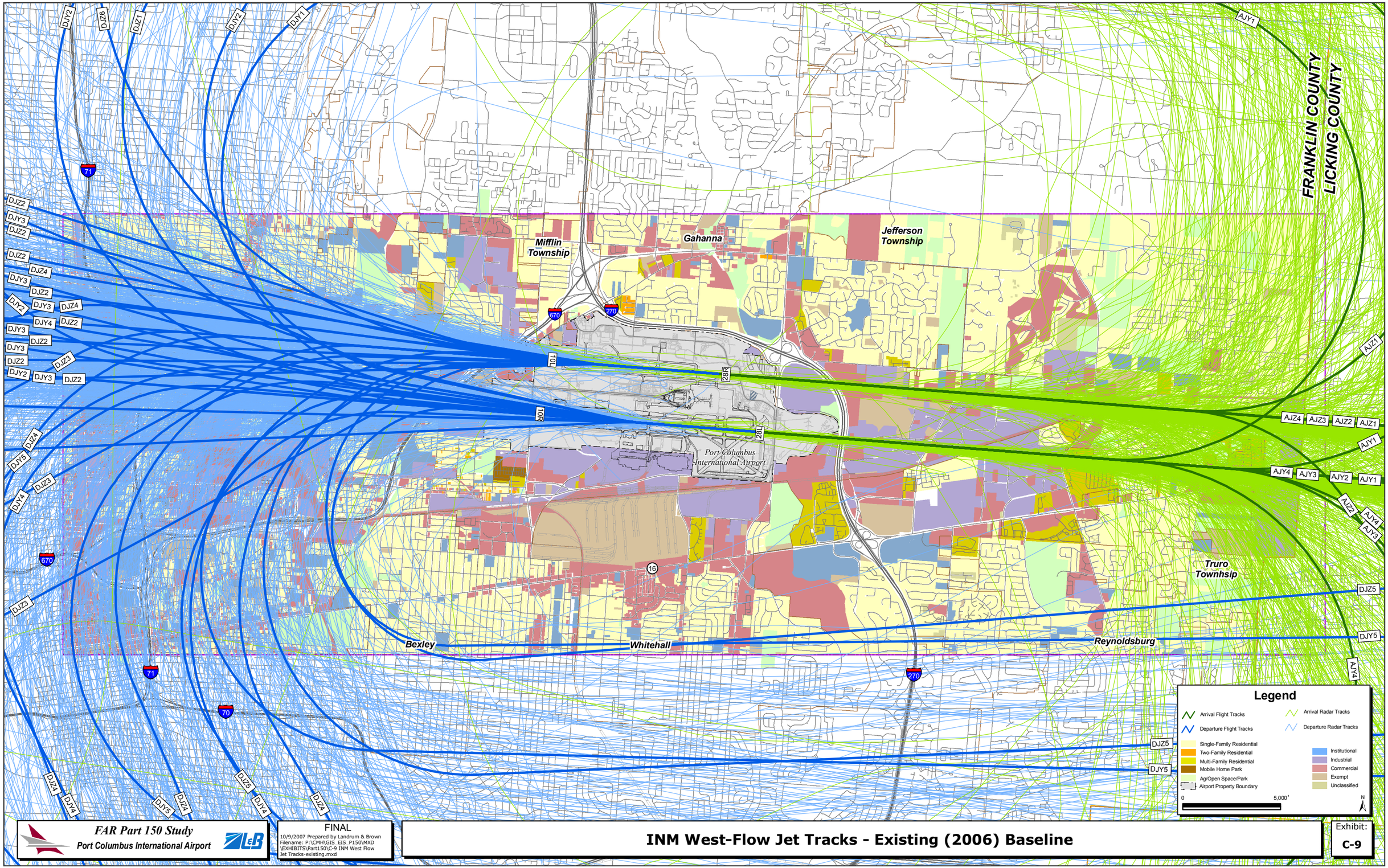

Legend

- Arrival Flight Tracks
- Departure Flight Tracks
- Arrival Radar Tracks
- Departure Radar Tracks
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home Park
- Ag/Open Space/Park
- Airport Property Boundary
- Institutional
- Industrial
- Commercial
- Exempt
- Unclassified

0 5,000' N

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INM West-Flow Jet Tracks - Existing (2006) Baseline

Exhibit:
C-9

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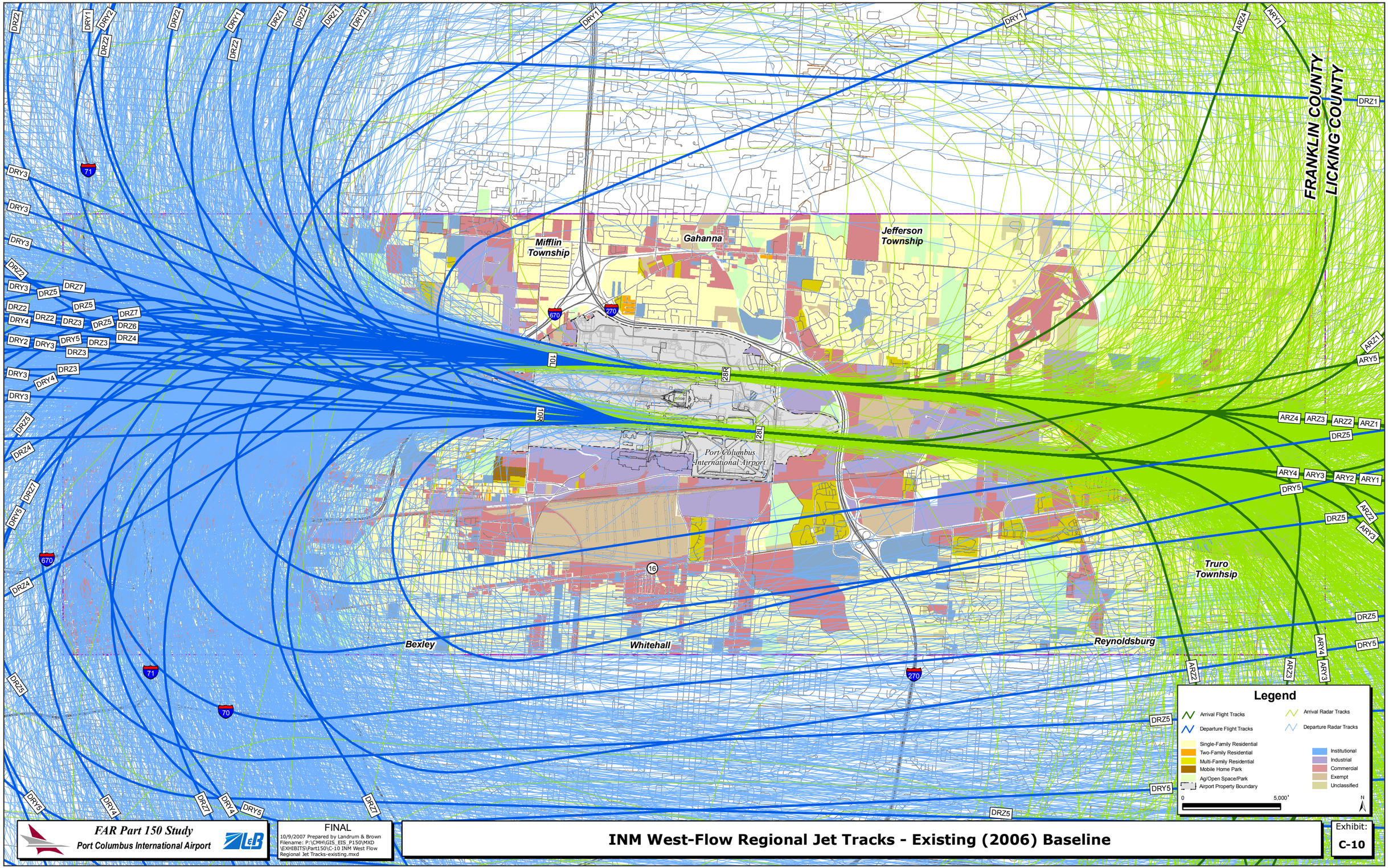

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Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-10 INM West Flow Regional Jet Tracks-existing.mxd

INM West-Flow Regional Jet Tracks - Existing (2006) Baseline

Exhibit:
C-10

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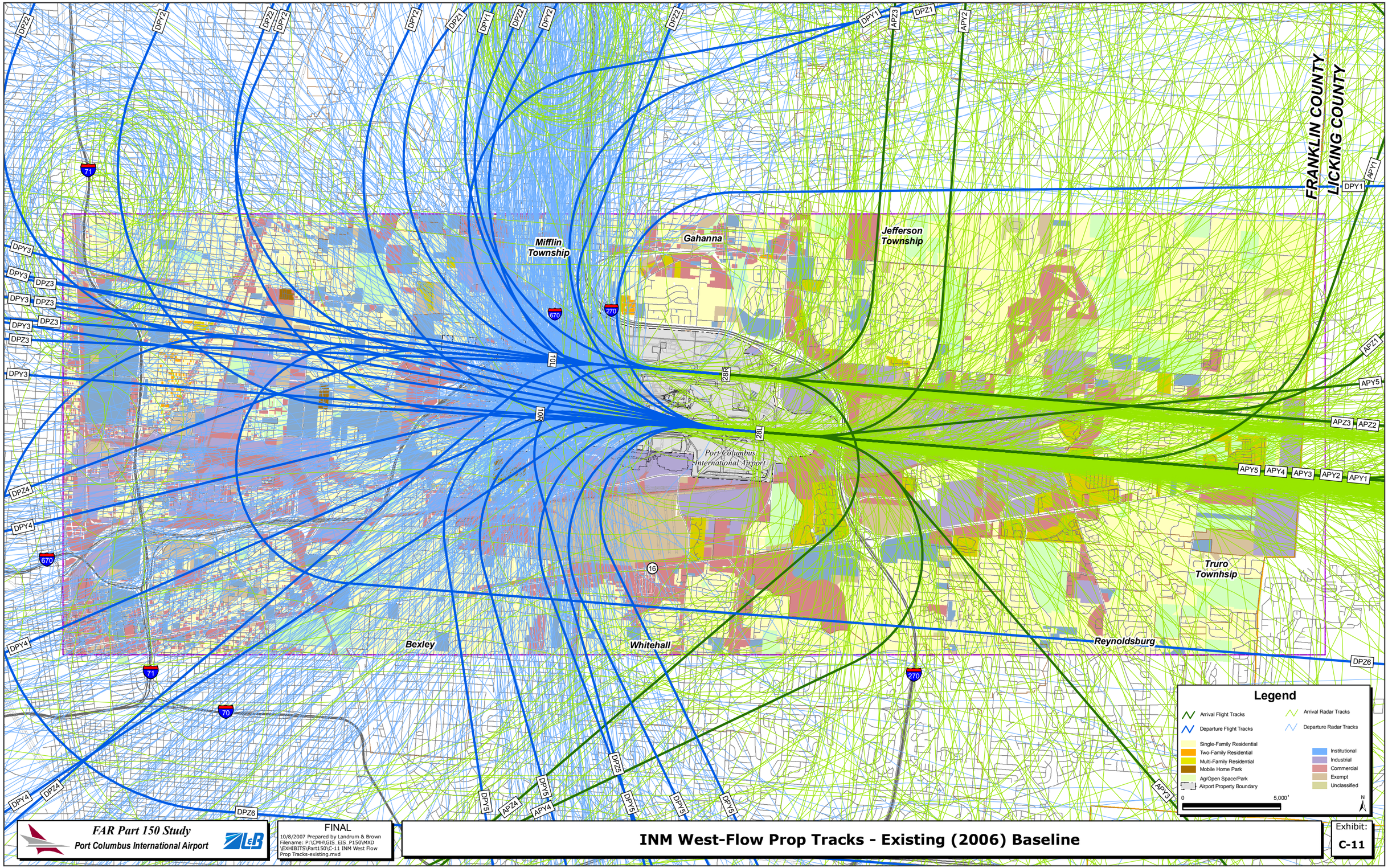

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Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-11 INM West Flow Prop Tracks-existing.mxd

INM West-Flow Prop Tracks - Existing (2006) Baseline

Exhibit:
C-11

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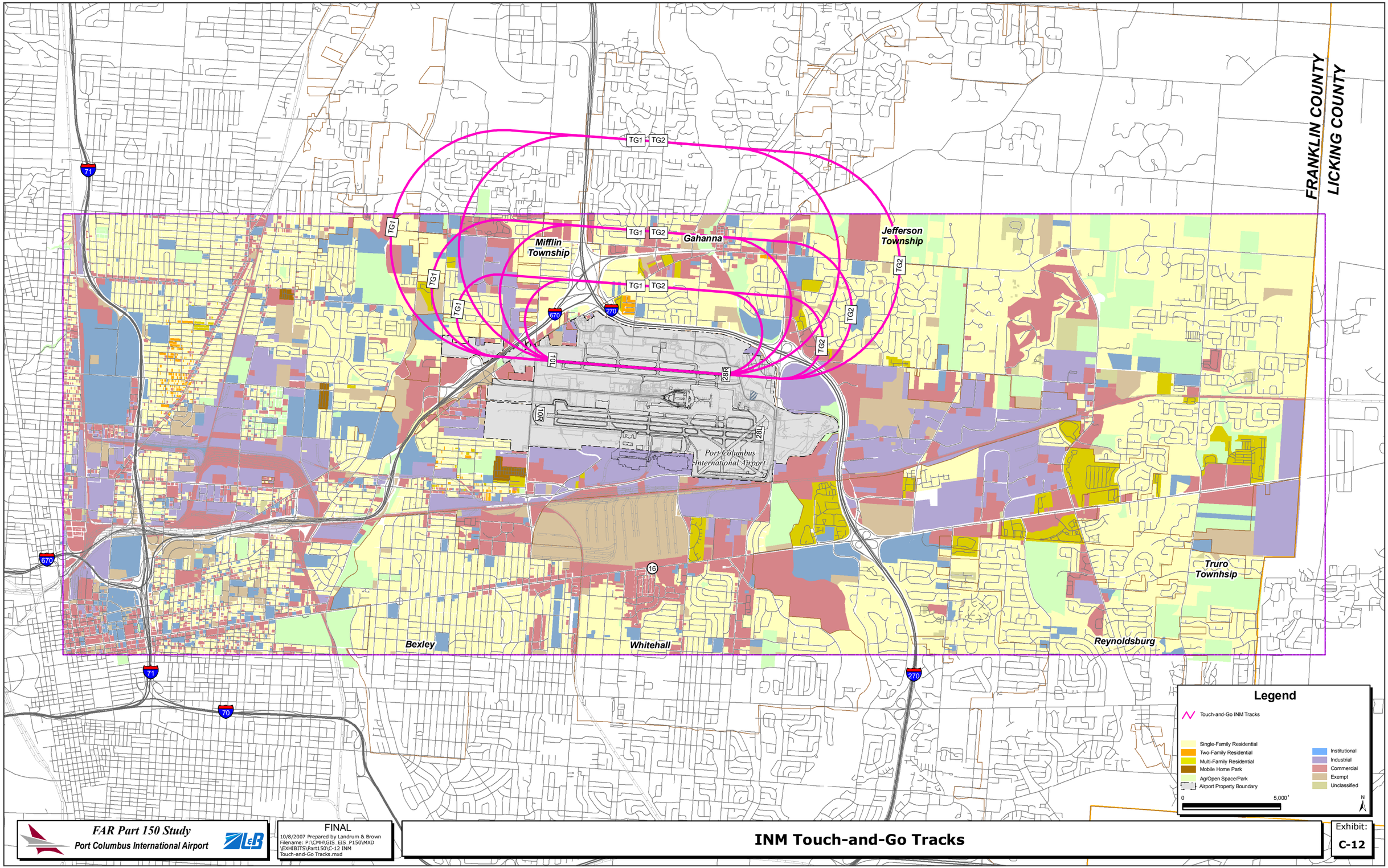

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Port Columbus International Airport

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INM Touch-and-Go Tracks

Exhibit:
C-12

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Table C-6
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - EXISTING (2006) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	AJW1	3.0%	0.0%	0.0%	0.0%	0.0%
10L	AJW2	3.5%	0.0%	0.0%	0.0%	0.0%
10L	AJW3	2.3%	0.0%	0.0%	0.0%	0.0%
10L	APW1	0.0%	0.0%	10.1%	0.0%	3.0%
10L	APW2	0.0%	0.0%	3.0%	0.0%	2.9%
10L	APW3	0.0%	0.0%	0.0%	0.0%	0.1%
10L	APW4	0.0%	0.0%	0.0%	0.0%	0.5%
10L	ARW1	0.0%	2.1%	0.0%	0.0%	0.0%
10L	ARW2	0.0%	13.1%	0.0%	4.9%	0.0%
10L	ARW3	0.0%	2.5%	0.0%	0.2%	0.0%
10R	AJX1	7.2%	0.0%	0.0%	0.0%	0.0%
10R	AJX2	9.4%	0.0%	0.0%	0.0%	0.0%
10R	AJX3	1.4%	0.0%	0.0%	0.0%	0.0%
10R	AJX4	4.3%	0.0%	0.0%	0.0%	0.0%
10R	APX1	0.0%	0.0%	3.5%	0.0%	0.0%
10R	APX2	0.0%	0.0%	9.5%	0.0%	12.9%
10R	APX3	0.0%	0.0%	0.9%	0.0%	5.4%
10R	APX4	0.0%	0.0%	0.0%	0.0%	1.5%
10R	ARX1	0.0%	1.2%	0.0%	0.0%	0.0%
10R	ARX2	0.0%	3.3%	0.0%	8.2%	0.0%
10R	ARX3	0.0%	1.2%	0.0%	1.1%	0.0%
10R	ARX4	0.0%	2.1%	0.0%	8.8%	0.0%
28L	AJY1	14.1%	0.0%	0.0%	0.0%	0.0%
28L	AJY2	9.6%	0.0%	0.0%	0.0%	0.0%
28L	AJY3	4.1%	0.0%	0.0%	0.0%	0.0%
28L	AJY4	17.9%	0.0%	0.0%	0.0%	0.0%
28L	APY1	0.0%	0.0%	9.4%	0.0%	0.8%
28L	APY2	0.0%	0.0%	19.2%	0.0%	26.2%
28L	APY3	0.0%	0.0%	2.3%	0.0%	12.1%
28L	APY4	0.0%	0.0%	0.0%	0.0%	3.8%
28L	APY5	0.0%	0.0%	0.0%	0.0%	9.0%
28L	ARY1	0.0%	2.5%	0.0%	0.0%	0.0%
28L	ARY2	0.0%	2.3%	0.0%	18.9%	0.0%
28L	ARY3	0.0%	8.5%	0.0%	21.9%	0.0%
28L	ARY4	0.0%	3.8%	0.0%	3.9%	0.0%
28L	ARY5	0.0%	4.8%	0.0%	11.6%	0.0%
28R	AJZ1	7.0%	0.0%	0.0%	0.0%	0.0%
28R	AJZ2	2.3%	0.0%	0.0%	0.0%	0.0%
28R	AJZ3	8.8%	0.0%	0.0%	0.0%	0.0%
28R	AJZ4	5.1%	0.0%	0.0%	0.0%	0.0%

Table C-6, *Continued*
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - EXISTING (2006) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28R	APZ1	0.0%	0.0%	14.0%	0.0%	0.0%
28R	APZ2	0.0%	0.0%	3.5%	0.0%	6.8%
28R	APZ3	0.0%	0.0%	24.7%	0.0%	13.3%
28R	APZ4	0.0%	0.0%	0.0%	0.0%	1.9%
28R	ARZ1	0.0%	5.4%	0.0%	0.0%	0.0%
28R	ARZ2	0.0%	21.5%	0.0%	13.7%	0.0%
28R	ARZ3	0.0%	6.8%	0.0%	0.6%	0.0%
28R	ARZ4	0.0%	18.9%	0.0%	6.3%	0.0%
Total		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Day: 7:00 a.m. to 9:59 p.m.
Night: 10:00 p.m. to 6:59 a.m.

Source: ANOMS data, Landrum & Brown, 2007.

Table C-7
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - EXISTING (2006) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	DJW1	1.9%	0.0%	0.0%	0.0%	0.0%
10L	DJW2	0.6%	0.0%	0.0%	0.0%	0.0%
10L	DJW3	0.5%	0.0%	0.0%	0.0%	0.0%
10L	DJW4	1.8%	0.0%	0.0%	0.0%	0.0%
10L	DJW5	0.7%	0.0%	0.0%	0.0%	0.0%
10L	DPW1	0.0%	0.0%	3.9%	0.0%	0.1%
10L	DPW2	0.0%	0.0%	3.3%	0.0%	1.5%
10L	DPW3	0.0%	0.0%	3.3%	0.0%	2.7%
10L	DPW4	0.0%	0.0%	1.0%	0.0%	1.4%
10L	DRW1	0.0%	1.4%	0.0%	0.0%	0.0%
10L	DRW2	0.0%	1.5%	0.0%	1.5%	0.0%
10L	DRW3	0.0%	6.0%	0.0%	2.0%	0.0%
10L	DRW4	0.0%	2.4%	0.0%	0.9%	0.0%
10L	DRW5	0.0%	1.4%	0.0%	0.0%	0.0%
10R	DJX1	3.7%	0.0%	0.0%	0.0%	0.0%
10R	DJX2	1.3%	0.0%	0.0%	0.0%	0.0%
10R	DJX3	2.7%	0.0%	0.0%	0.0%	0.0%
10R	DJX4	4.4%	0.0%	0.0%	0.0%	0.0%
10R	DJX5	3.7%	0.0%	0.0%	0.0%	0.0%
10R	DPX1	0.0%	0.0%	4.3%	0.0%	5.4%
10R	DPX2	0.0%	0.0%	4.3%	0.0%	7.5%
10R	DPX3	0.0%	0.0%	0.9%	0.0%	3.9%
10R	DPX4	0.0%	0.0%	1.8%	0.0%	1.5%
10R	DPX5	0.0%	0.0%	1.8%	0.0%	0.0%
10R	DRX1	0.0%	1.0%	0.0%	0.0%	0.0%
10R	DRX2	0.0%	0.8%	0.0%	3.9%	0.0%
10R	DRX3	0.0%	2.1%	0.0%	3.6%	0.0%
10R	DRX4	0.0%	1.8%	0.0%	4.1%	0.0%
10R	DRX5	0.0%	2.6%	0.0%	3.1%	0.0%
10R	DRX6	0.0%	0.6%	0.0%	2.3%	0.0%
28L	DJY1	4.6%	0.0%	0.0%	0.0%	0.0%
28L	DJY2	4.6%	0.0%	0.0%	0.0%	0.0%
28L	DJY3	31.2%	0.0%	0.0%	0.0%	0.0%
28L	DJY4	7.3%	0.0%	0.0%	0.0%	0.0%
28L	DJY5	5.5%	0.0%	0.0%	0.0%	0.0%
28L	DPY1	0.0%	0.0%	6.9%	0.0%	23.3%
28L	DPY2	0.0%	0.0%	16.7%	0.0%	18.1%
28L	DPY3	0.0%	0.0%	10.4%	0.0%	0.8%
28L	DPY4	0.0%	0.0%	0.0%	0.0%	5.3%
28L	DPY5	0.0%	0.0%	1.3%	0.0%	6.1%

Table C-7, *Continued*
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - EXISTING (2006) BASELINE
Port Columbus International Airport

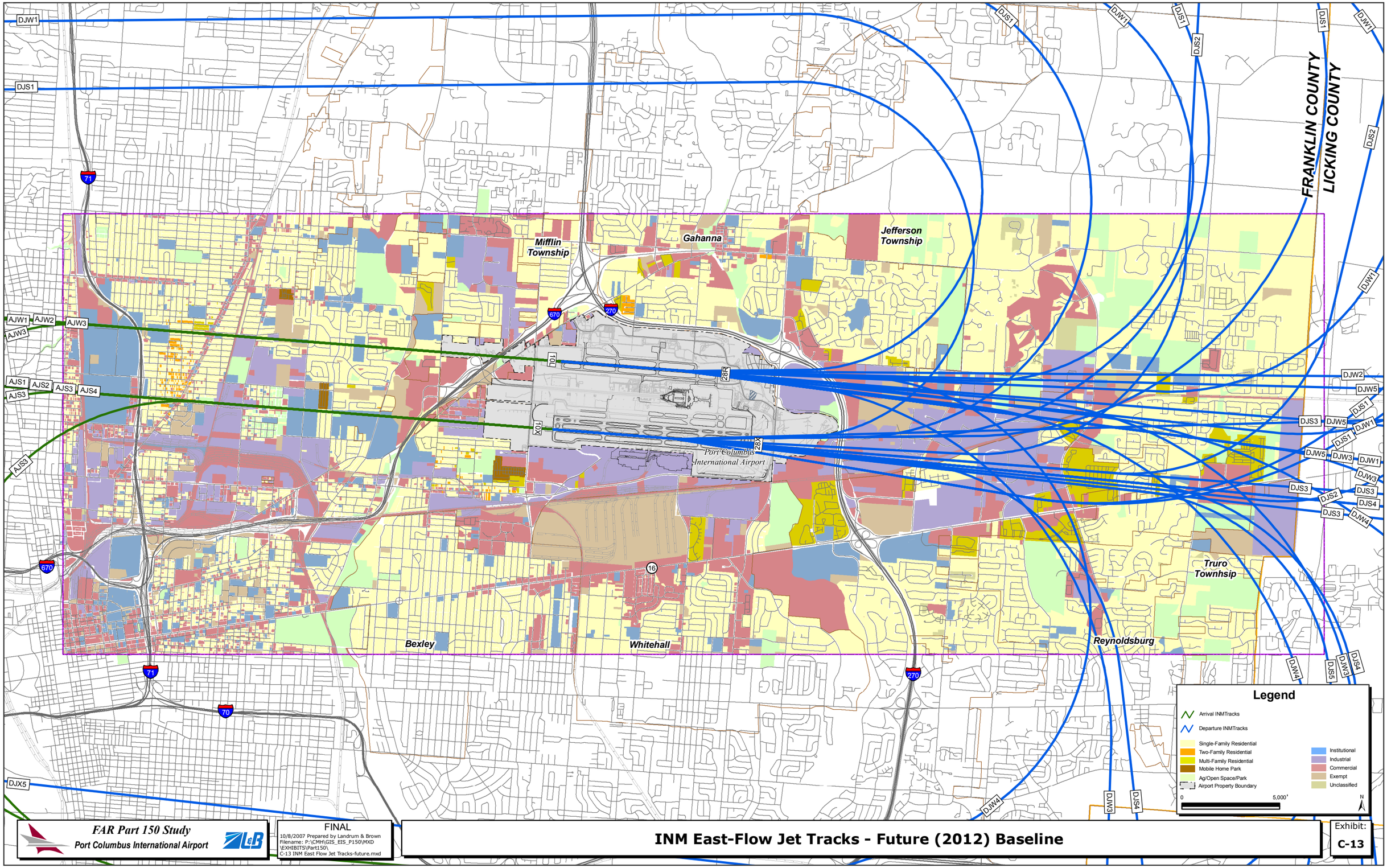
Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28L	DRY1	0.0%	8.5%	0.0%	20.6%	0.0%
28L	DRY2	0.0%	2.3%	0.0%	13.4%	0.0%
28L	DRY3	0.0%	3.8%	0.0%	0.0%	0.0%
28L	DRY4	0.0%	6.0%	0.0%	8.0%	0.0%
28L	DRY5	0.0%	6.6%	0.0%	17.0%	0.0%
28R	DJZ1	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DJZ2	10.5%	0.0%	0.0%	0.0%	0.0%
28R	DJZ3	6.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ4	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DJZ5	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DJZ6	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DPZ1	0.0%	0.0%	6.1%	0.0%	4.0%
28R	DPZ2	0.0%	0.0%	18.2%	0.0%	8.1%
28R	DPZ3	0.0%	0.0%	12.9%	0.0%	0.3%
28R	DPZ4	0.0%	0.0%	0.0%	0.0%	2.1%
28R	DPZ5	0.0%	0.0%	1.6%	0.0%	2.4%
28R	DPZ6	0.0%	0.0%	1.6%	0.0%	5.5%
28R	DRZ1	0.0%	6.6%	0.0%	2.3%	0.0%
28R	DRZ2	0.0%	7.0%	0.0%	6.7%	0.0%
28R	DRZ3	0.0%	4.2%	0.0%	0.0%	0.0%
28R	DRZ4	0.0%	2.6%	0.0%	0.0%	0.0%
28R	DRZ5	0.0%	17.1%	0.0%	7.1%	0.0%
28R	DRZ6	0.0%	2.6%	0.0%	0.0%	0.0%
28R	DRZ7	0.0%	10.9%	0.0%	3.5%	0.0%
Total		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: ANOMS data, Landrum & Brown, 2007.

Table C-8
TOUCH-AND-GO FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2006) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	TG1	0.0%	0.0%	0.0%	0.0%	23.6%
28R	TG2	0.0%	0.0%	0.0%	0.0%	76.4%

Source: ANOMS data, Landrum & Brown, 2007.



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C-13 INM East Flow Jet Tracks-future.mxd

INM East-Flow Jet Tracks - Future (2012) Baseline

Exhibit:
C-13

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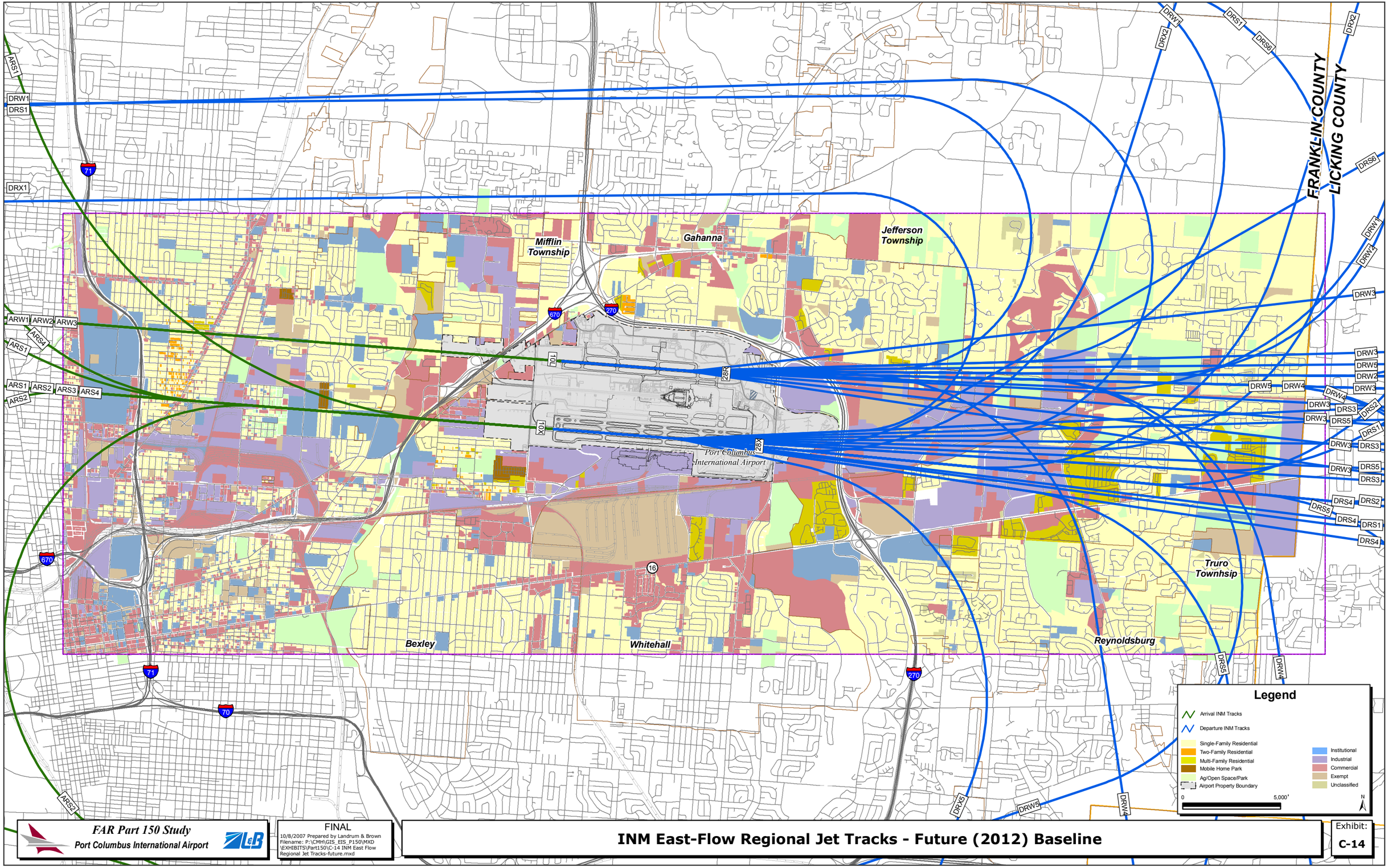

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Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-14 INM East Flow Regional Jet Tracks-future.mxd

INM East-Flow Regional Jet Tracks - Future (2012) Baseline

Exhibit:
C-14

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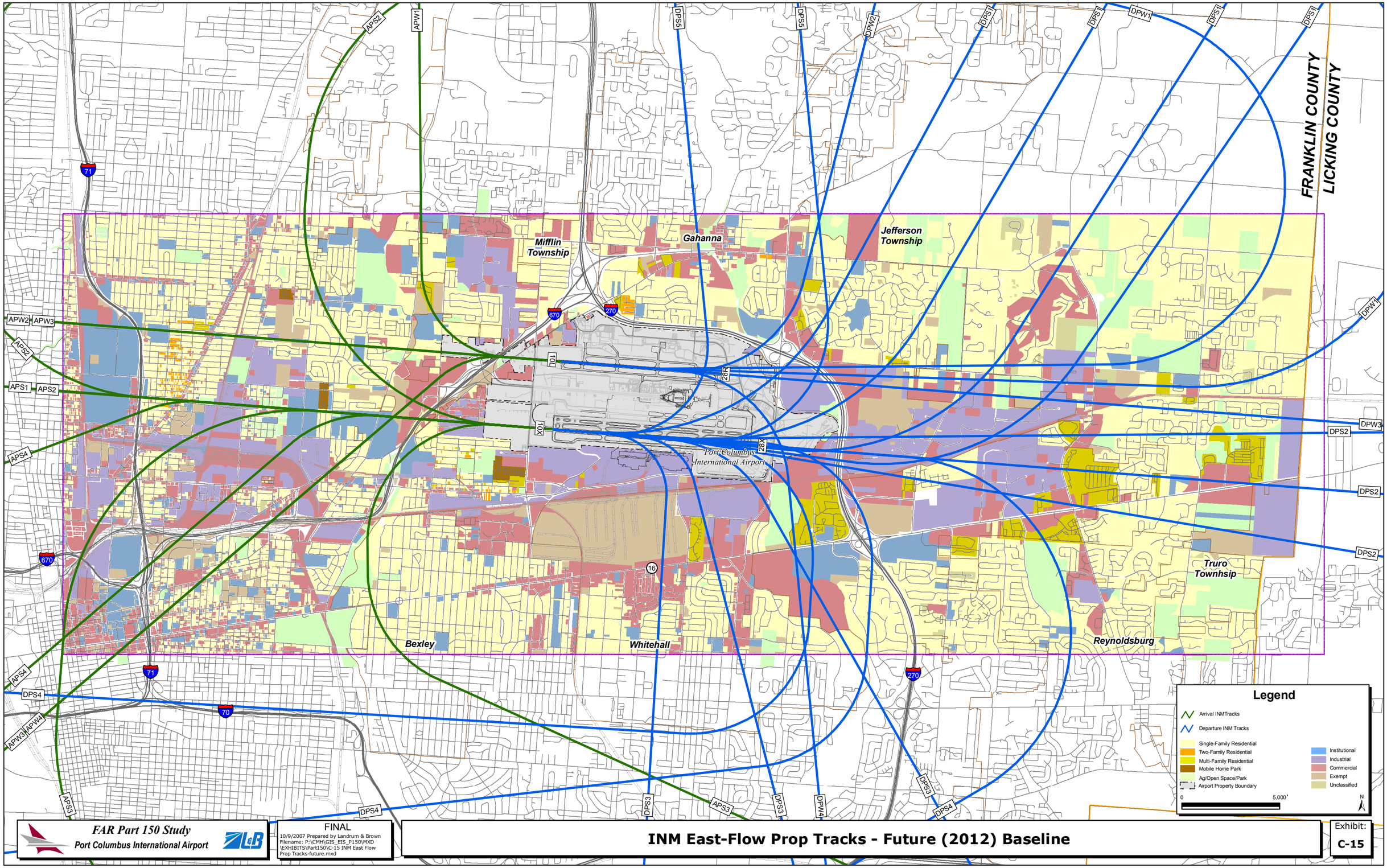

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Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-15 INM East Flow Prop Tracks-future.mxd

INM East-Flow Prop Tracks - Future (2012) Baseline

Exhibit:
C-15

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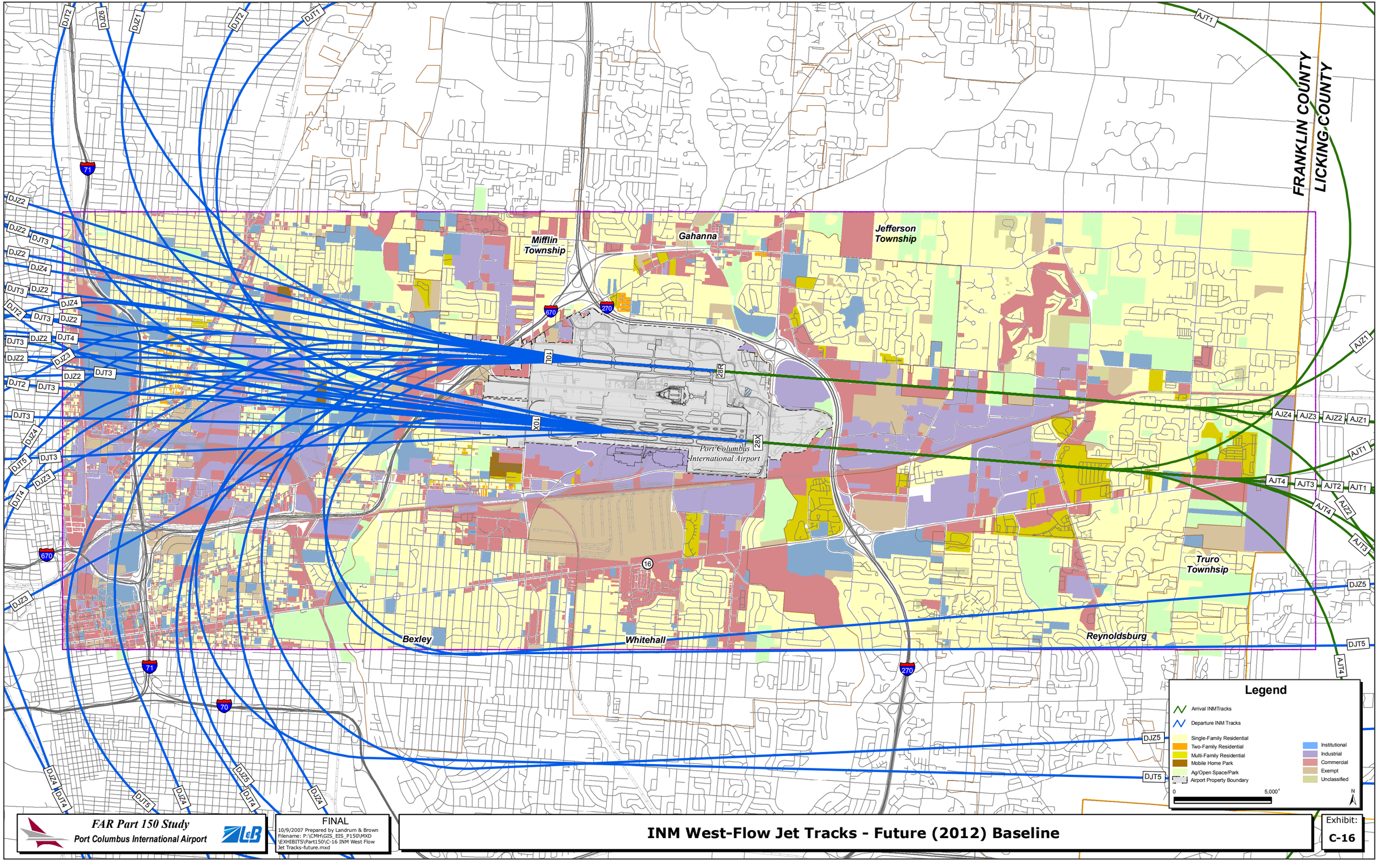

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10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-16 INM West Flow Jet Tracks-future.mxd

INM West-Flow Jet Tracks - Future (2012) Baseline

Exhibit:
C-16

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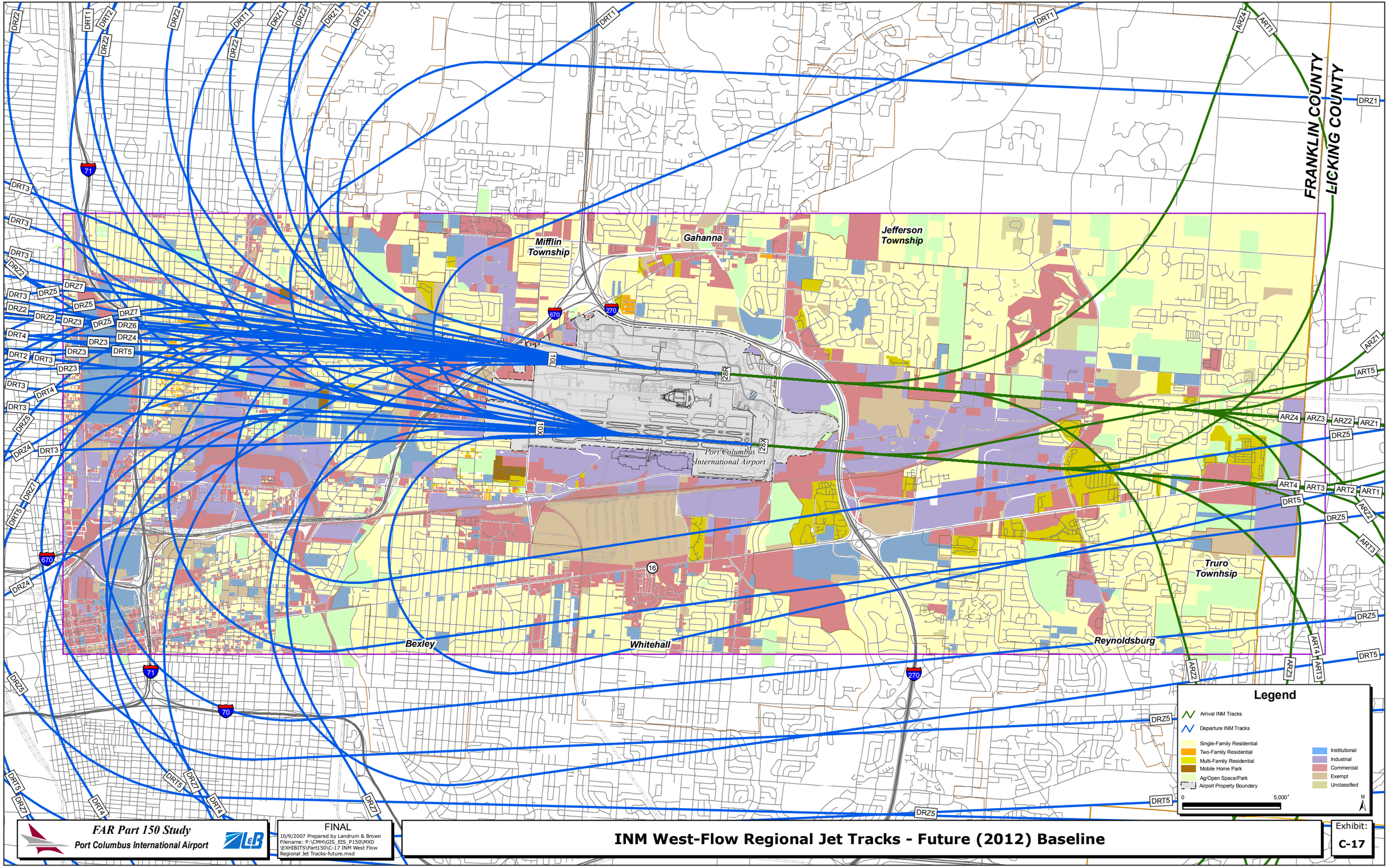

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Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-17 INM West Flow Regional Jet Tracks-future.mxd

INM West-Flow Regional Jet Tracks - Future (2012) Baseline

Exhibit: **C-17**

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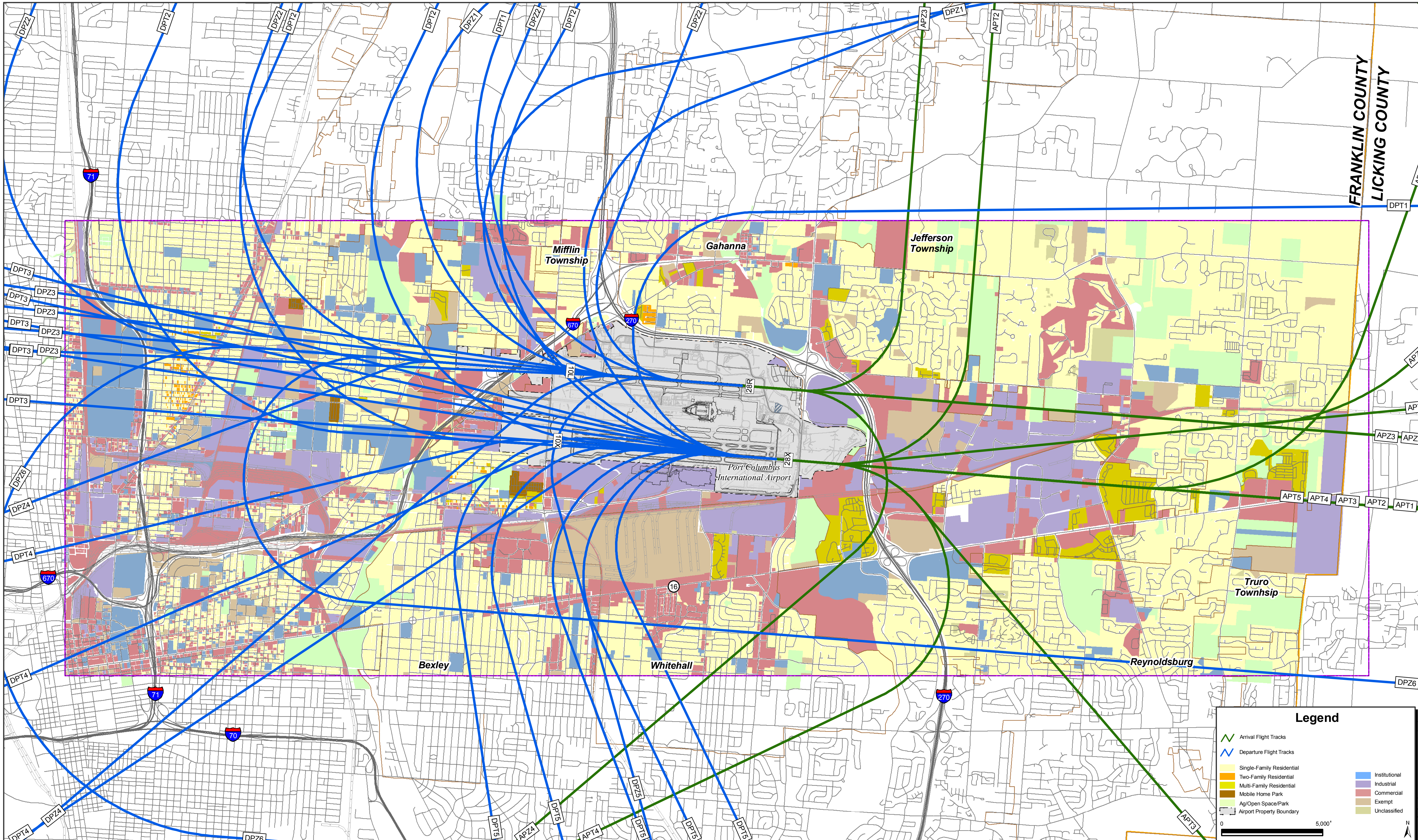

FRANKLIN COUNTY
LICKING COUNTY
Mifflin Township
Gahanna
Jefferson Township
Port Columbus International Airport
Truro Township
Bexley
Whitehall
Reynoldsburg
10L
10X
28R
28X
DPT1
DPT2
DPT3
DPT4
DPT5
DPZ1
DPZ2
DPZ3
DPZ4
DPZ5
DPZ6
APT1
APT2
APT3
APT4
APT5
APZ1
APZ2
APZ3
APZ4
Legend
Arrival Flight Tracks
Departure Flight Tracks
Single-Family Residential
Two-Family Residential
Multi-Family Residential
Mobile Home Park
Ag/Open Space/Park
Airport Property Boundary
Institutional
Industrial
Commercial
Exempt
Unclassified
0
5,000'
N

FAR Part 150 Study

Port Columbus International Airport

FINAL

10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-18 INM West Flow Prop Tracks-future.mxd

INM West-Flow Prop Tracks - Future (2012) Baseline

Exhibit: C-18

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Table C-9
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	AJW1	2.8%	0.0%	0.0%	0.0%	0.0%
10L	AJW2	3.8%	0.0%	0.0%	0.0%	0.0%
10L	AJW3	2.3%	0.0%	0.0%	0.0%	0.0%
10L	APW1	0.0%	0.0%	6.7%	0.0%	3.2%
10L	APW2	0.0%	0.0%	4.2%	0.0%	2.6%
10L	APW3	0.0%	0.0%	0.0%	0.0%	0.1%
10L	APW4	0.0%	0.0%	0.0%	0.0%	0.5%
10L	ARW1	0.0%	2.0%	0.0%	0.0%	0.0%
10L	ARW2	0.0%	12.4%	0.0%	7.9%	0.0%
10L	ARW3	0.0%	2.8%	0.0%	0.0%	0.0%
10X	AJS1	6.8%	0.0%	0.0%	0.0%	0.0%
10X	AJS2	10.0%	0.0%	0.0%	0.0%	0.0%
10X	AJS3	1.6%	0.0%	0.0%	0.0%	0.0%
10X	AJS4	3.9%	0.0%	0.0%	0.0%	0.0%
10X	APS1	0.0%	0.0%	1.6%	0.0%	0.0%
10X	APS2	0.0%	0.0%	15.9%	0.0%	13.4%
10X	APS3	0.0%	0.0%	1.6%	0.0%	4.9%
10X	APS4	0.0%	0.0%	0.0%	0.0%	1.5%
10X	ARS1	0.0%	1.1%	0.0%	0.0%	0.0%
10X	ARS2	0.0%	2.9%	0.0%	7.3%	0.0%
10X	ARS3	0.0%	1.4%	0.0%	0.2%	0.0%
10X	ARS4	0.0%	2.2%	0.0%	8.5%	0.0%
28R	AJZ1	6.8%	0.0%	0.0%	0.0%	0.0%
28R	AJZ2	2.5%	0.0%	0.0%	0.0%	0.0%
28R	AJZ3	9.4%	0.0%	0.0%	0.0%	0.0%
28R	AJZ4	4.6%	0.0%	0.0%	0.0%	0.0%
28R	APZ1	0.0%	0.0%	6.5%	0.0%	0.0%
28R	APZ2	0.0%	0.0%	6.5%	0.0%	6.2%
28R	APZ3	0.0%	0.0%	19.1%	0.0%	13.9%
28R	APZ4	0.0%	0.0%	0.0%	0.0%	1.9%
28R	ARZ1	0.0%	5.8%	0.0%	0.0%	0.0%
28R	ARZ2	0.0%	20.1%	0.0%	15.1%	0.0%
28R	ARZ3	0.0%	8.0%	0.0%	0.0%	0.0%
28R	ARZ4	0.0%	19.3%	0.0%	12.6%	0.0%
28X	AJT1	13.5%	0.0%	0.0%	0.0%	0.0%
28X	AJT2	8.7%	0.0%	0.0%	0.0%	0.0%
28X	AJT3	4.5%	0.0%	0.0%	0.0%	0.0%
28X	AJT4	19.0%	0.0%	0.0%	0.0%	0.0%

Table C-9, *Continued*
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28X	APT1	0.0%	0.0%	4.4%	0.0%	0.8%
28X	APT2	0.0%	0.0%	29.2%	0.0%	27.7%
28X	APT3	0.0%	0.0%	4.4%	0.0%	10.6%
28X	APT4	0.0%	0.0%	0.0%	0.0%	3.8%
28X	APT5	0.0%	0.0%	0.0%	0.0%	9.0%
28X	ART1	0.0%	2.6%	0.0%	0.0%	0.0%
28X	ART2	0.0%	3.2%	0.0%	15.7%	0.0%
28X	ART3	0.0%	8.0%	0.0%	17.6%	0.0%
28X	ART4	0.0%	4.2%	0.0%	2.6%	0.0%
28X	ART5	0.0%	4.1%	0.0%	12.5%	0.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%

Note: 10X/28X denotes the proposed relocated runway 10R/28L

Source: ANOMS data, Landrum & Brown, 2007.

Table C-10
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	DJW1	1.9%	0.0%	0.0%	0.0%	0.0%
10L	DJW2	0.4%	0.0%	0.0%	0.0%	0.0%
10L	DJW3	0.5%	0.0%	0.0%	0.0%	0.0%
10L	DJW4	1.8%	0.0%	0.0%	0.0%	0.0%
10L	DJW5	0.7%	0.0%	0.0%	0.0%	0.0%
10L	DPW1	0.0%	0.0%	1.8%	0.0%	0.1%
10L	DPW2	0.0%	0.0%	1.5%	0.0%	1.7%
10L	DPW3	0.0%	0.0%	5.1%	0.0%	2.3%
10L	DPW4	0.0%	0.0%	0.0%	0.0%	1.7%
10L	DRW1	0.0%	1.5%	0.0%	0.0%	0.0%
10L	DRW2	0.0%	1.9%	0.0%	1.7%	0.0%
10L	DRW3	0.0%	5.6%	0.0%	3.2%	0.0%
10L	DRW4	0.0%	2.5%	0.0%	1.3%	0.0%
10L	DRW5	0.0%	1.3%	0.0%	0.0%	0.0%
10X	DJS1	3.8%	0.0%	0.0%	0.0%	0.0%
10X	DJS2	1.0%	0.0%	0.0%	0.0%	0.0%
10X	DJS3	2.7%	0.0%	0.0%	0.0%	0.0%
10X	DJS4	3.7%	0.0%	0.0%	0.0%	0.0%
10X	DJS5	4.5%	0.0%	0.0%	0.0%	0.0%
10X	DPS1	0.0%	0.0%	5.8%	0.0%	5.9%
10X	DPS2	0.0%	0.0%	8.8%	0.0%	6.3%
10X	DPS3	0.0%	0.0%	0.0%	0.0%	4.6%
10X	DPS4	0.0%	0.0%	0.8%	0.0%	1.5%
10X	DPS5	0.0%	0.0%	0.8%	0.0%	0.0%
10X	DRS1	0.0%	1.1%	0.0%	0.0%	0.0%
10X	DRS2	0.0%	1.0%	0.0%	4.3%	0.0%
10X	DRS3	0.0%	2.0%	0.0%	2.4%	0.0%
10X	DRS4	0.0%	1.7%	0.0%	4.9%	0.0%
10X	DRS5	0.0%	2.5%	0.0%	2.2%	0.0%
10X	DRS6	0.0%	0.6%	0.0%	1.6%	0.0%
28R	DJZ1	1.6%	0.0%	0.0%	0.0%	0.0%
28R	DJZ2	11.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ3	6.0%	0.0%	0.0%	0.0%	0.0%
28R	DJZ4	2.4%	0.0%	0.0%	0.0%	0.0%
28R	DJZ5	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DJZ6	2.2%	0.0%	0.0%	0.0%	0.0%
28R	DPZ1	0.0%	0.0%	12.8%	0.0%	4.0%
28R	DPZ2	0.0%	0.0%	13.7%	0.0%	8.7%
28R	DPZ3	0.0%	0.0%	6.0%	0.0%	0.3%

Table C-10, *Continued*
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28R	DPZ4	0.0%	0.0%	0.0%	0.0%	2.1%
28R	DPZ5	0.0%	0.0%	0.0%	0.0%	3.7%
28R	DPZ6	0.0%	0.0%	0.0%	0.0%	3.7%
28R	DRZ1	0.0%	6.4%	0.0%	2.2%	0.0%
28R	DRZ2	0.0%	8.2%	0.0%	8.5%	0.0%
28R	DRZ3	0.0%	3.8%	0.0%	0.0%	0.0%
28R	DRZ4	0.0%	2.5%	0.0%	0.0%	0.0%
28R	DRZ5	0.0%	15.9%	0.0%	11.4%	0.0%
28R	DRZ6	0.0%	3.3%	0.0%	0.0%	0.0%
28R	DRZ7	0.0%	10.9%	0.0%	4.4%	0.0%
28X	DJT1	4.6%	0.0%	0.0%	0.0%	0.0%
28X	DJT2	3.4%	0.0%	0.0%	0.0%	0.0%
28X	DJT3	31.7%	0.0%	0.0%	0.0%	0.0%
28X	DJT4	8.3%	0.0%	0.0%	0.0%	0.0%
28X	DJT5	5.4%	0.0%	0.0%	0.0%	0.0%
28X	DPT1	0.0%	0.0%	14.2%	0.0%	18.8%
28X	DPT2	0.0%	0.0%	23.7%	0.0%	19.6%
28X	DPT3	0.0%	0.0%	4.8%	0.0%	0.8%
28X	DPT4	0.0%	0.0%	0.0%	0.0%	5.3%
28X	DPT5	0.0%	0.0%	0.0%	0.0%	9.1%
28X	DRT1	0.0%	8.3%	0.0%	13.3%	0.0%
28X	DRT2	0.0%	3.0%	0.0%	13.8%	0.0%
28X	DRT3	0.0%	3.9%	0.0%	0.0%	0.0%
28X	DRT4	0.0%	5.8%	0.0%	5.9%	0.0%
28X	DRT5	0.0%	6.3%	0.0%	18.9%	0.0%
Total		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: 10X/28X denotes the proposed relocated runway 10R/28L
Source: ANOMS data, Landrum & Brown, 2007.

Table C-11
TOUCH-AND-GO FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	TG1	0.0%	0.0%	0.0%	0.0%	23.6%
28R	TG2	0.0%	0.0%	0.0%	0.0%	76.4%

Source: ANOMS data, Landrum & Brown, 2007.

C.4.5 AIRCRAFT WEIGHT AND TRIP LENGTH

Aircraft weight during departure is a factor in the dispersion of noise because it impacts the rate at which an aircraft is able to climb. Generally, heavier aircraft, have a slower rate of climb and a wider dispersion of noise along their flight routes. Where specific aircraft weights are unknown, the INM uses the distance flown to the first stop as a surrogate for the weight, by assuming that the weight has a direct relationship with the fuel load necessary to reach the first destination. The INM groups trip lengths into seven stage categories and assigns standard aircraft weights to each stage category. These categories are:

Stage Category	Stage Length
1	0-500 nautical miles
2	500-1000 nautical miles
3	1000-1500 nautical miles
4	1500-2500 nautical miles
5	2500-3500 nautical miles
6	3500-4500 nautical miles
7	4500+ nautical miles

The trip lengths flown from CMH are based on scheduled operations for the baseline period. **Table C-12** and **Table C-13** indicate the proportion of the operations that fell within each of the seven trip length categories for both the Existing (2006) Baseline and the Future (2012) Baseline operation levels. Both tables show a similar distribution of aircraft flight distances. For the Existing (2006) Baseline 45 percent of all large jet departures and 80 percent of all commuter jet departures operated to destinations with a stage length of one; whereas for the Future (2012) Baseline 53 percent of all large jets and 84 percent of all commuter jets departed to destinations with a stage length of one. This is due to an increase in commuter jet operations particularly larger commuter jets that are capable of serving destinations that are farther away.

Results from the correlation of noise levels and altitude distances from the noise measurements (see Appendix B) found that in most cases the standard approach to assigning aircraft weights adequately represent the activity at CMH, however,

during aircraft monitoring sessions it was noted that the Boeing 737-300, Airbus 320, and McDonnell Douglass MD-80 Series aircraft were consistently lower (and presumably heavier) than their distance-based stage length would define them to be. Therefore, a higher stage length was assigned when modeling these aircraft to more accurately reflect their measured noise levels and departure profiles. A complete discussion of the aircraft monitoring results is included in Appendix B.

Table C-12
DEPARTURE TRIP LENGTH DISTRIBUTION –
EXISTING (2006) BASELINE
Port Columbus International Airport

Stage Category	Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
1	45%	80%	100%	100%	100%
2	17%	20%	0%	0%	0%
3	16%	0%	0%	0%	0%
4	22%	0%	0%	0%	0%
5	0%	0%	0%	0%	0%
6	0%	0%	0%	0%	0%
7	0%	0%	0%	0%	0%

Source: Landrum & Brown, 2007

Table C-13
DEPARTURE TRIP LENGTH DISTRIBUTION –
FUTURE (2012) BASELINE
Port Columbus International Airport

Stage Length	Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
1	53%	84%	100%	100%	100%
2	20%	16%	0%	0%	0%
3	13%	0%	0%	0%	0%
4	14%	0%	0%	0%	0%
5	0%	0%	0%	0%	0%
6	0%	0%	0%	0%	0%
7	0%	0%	0%	0%	0%

Source: Landrum & Brown, 2007

C.4.6 GROUND RUN-UP NOISE

Engine run-up locations and times were obtained from the CRAA and modeled in INM. Engine run-ups are primarily performed on regional jet and general aviation jet aircraft. These run-ups occur at three locations at CMH described below and shown on **Exhibit C-19**. Nearly all engine run-ups occur during the nighttime (10:00 p.m. to 6:59 a.m.). **Table C-14** shows the number, types, and the duration of engine run-ups that were modeled for the Existing (2006) Baseline and the Future (2012) Baseline conditions.

- **Barrier A:** Located to the south of Concourse B, along the south edge of the terminal apron. Aircraft face either east or west, parallel to the wall, and are positioned on the north side of the barrier.
- **Barrier B:** Located just north of the southeast end of Taxiway G. Aircraft face east (preferred) or west between the two sound barrier walls. The majority of run-ups occur here due to the proximity to the American Eagle maintenance hangar.
- **Barrier C:** Located on the north airfield near the NetJets ramp, north of Runway 10L/28R. Aircraft face either east or west, parallel to the wall, and are positioned on the south side of the barrier.

Table C-14
GROUND RUN-UP OPERATIONS
EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

INM Aircraft Type	Average Daily Run-up Operations	Average Duration in Seconds	Power (Thrust) Settings
Existing (2006) Baseline			
CL600	2.1	420	6000 lbs.
Future (2012) Baseline			
CL600	2.1	420	6000 lbs.
Narrowbody (i.e. A319, A320, B737)	0.5	420	70%

Source: Landrum & Brown, 2007.

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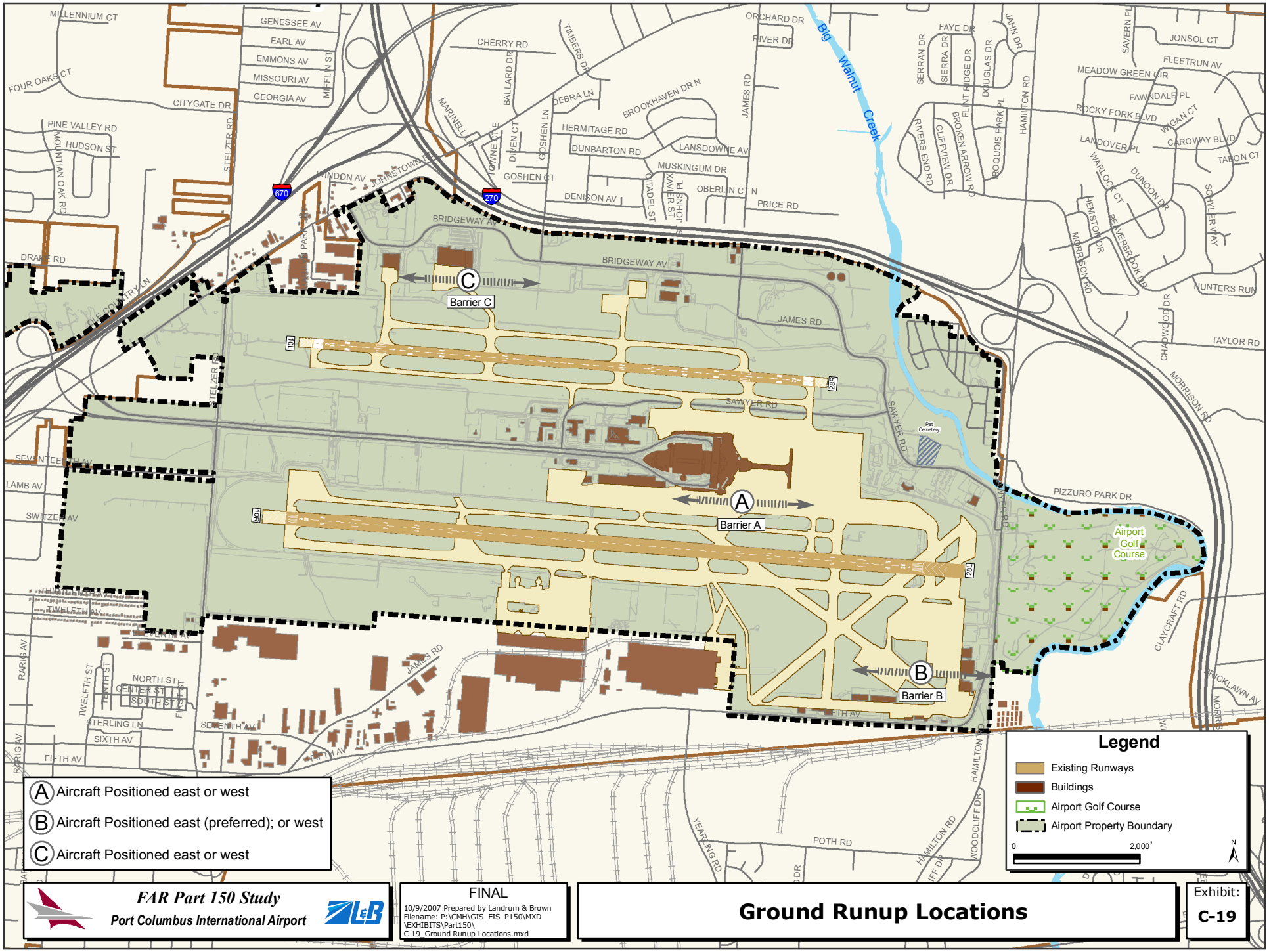
Barrier C
Barrier A
Barrier B
Airport Golf Course
Big Walnut Creek
Pet Cemetery
(A) Aircraft Positioned east or west
(B) Aircraft Positioned east (preferred); or west
(C) Aircraft Positioned east or west
Legend
Existing Runways
Buildings
Airport Golf Course
Airport Property Boundary
0
2,000'
N
FAR Part 150 Study
Port Columbus International Airport
FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\
C-19_Ground Runup Locations.mxd
Ground Runup Locations
Exhibit:
C-19

C.5 NOISE COMPATIBILITY PROGRAM INFORMATION

The elements of the Noise Compatibility Program (NCP) set forth in Chapter Four, Noise Compatibility Plan include noise abatement elements that would change the operating conditions from what was modeled for the Future (2012) Baseline conditions. The following sections describe the differences in operating conditions between the Future (2012) Baseline and the 2012 NCP noise exposure contours.

C.5.1 RUNWAY DEFINITION

The runway definition discussed for the Future (2012) Baseline would remain the same for the Future (2012) NCP. Both conditions include the proposed relocation of Runway 10R/28L 702 feet to the south of its existing location.

C.5.2 NUMBER OF OPERATIONS AND FLEET MIX

The number of annual operations discussed for the Future (2012) Baseline would remain the same for the Future (2012) NCP.

C.5.3 RUNWAY END UTILIZATION

The NCP recommends renewed efforts to maximize east flow during calm winds as stated in the current ATCT Tower Order and originally recommended in approved measure NA-1. Renewed efforts will include identifying impediments to higher use of east flow and working with ATCT and the airlines to address these issues. The Future (2012) Baseline documented that CMH operates in west flow approximately 75 percent of the time and in east flow 25 percent of the time. For the purpose of modeling the Future (2012) NCP it was assumed that these efforts would result in at least a five percent shift in east flow versus west flow (70 percent west flow, 30 percent east flow). **Table C-15, *Runway End Utilization, Future (2012) NCP***, shows runway use percentages modeled for the Future (2012) NCP.

Table C-15
RUNWAY END UTILIZATION -
FUTURE (2012) NCP
Port Columbus International Airport

Daytime Arrivals				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	10.1%	19.9%	44.7%	25.3%
Commuter Jet	20.5%	9.5%	20.4%	49.6%
Commuter Prop	15.9%	14.1%	28.1%	41.9%
General Aviation Jet	6.7%	23.3%	51.3%	18.7%
General Aviation Prop	7.3%	22.7%	49.6%	20.4%
Nighttime Arrivals				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	10.2%	40.3%	38.5%	11.0%
Commuter Jet	24.8%	9.6%	20.2%	45.4%
Commuter Prop	14.6%	28.0%	33.2%	24.2%
General Aviation Jet	6.2%	25.6%	49.2%	19.0%
General Aviation Prop	12.0%	37.1%	31.9%	19.0%
Daytime Departures				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	7.6%	22.4%	47.5%	22.5%
Commuter Jet	18.5%	11.5%	25.6%	44.4%
Commuter Prop	15.6%	14.4%	31.3%	38.7%
General Aviation Jet	6.2%	23.8%	52.5%	17.5%
General Aviation Prop	7.5%	22.5%	49.9%	20.1%
Nighttime Departures				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	7.7%	22.3%	47.1%	22.9%
Commuter Jet	13.6%	16.4%	18.8%	51.2%
Commuter Prop	5.5%	24.5%	40.3%	29.7%
General Aviation Jet	5.4%	24.6%	53.2%	16.8%
General Aviation Prop	4.7%	25.3%	44.5%	25.5%

Daytime = 7:00 a.m. – 9:59 p.m.
Nighttime = 10:00 p.m. – 6:59 a.m.
Source: Landrum & Brown, 2007.

C.5.4 FLIGHT TRACKS AND UTILIZATION

Flight tracks were modified for the NCP to reflect the following recommended alternative procedure:

NA-E Implement a 15 degree divergent turn off of Runway 28R, after crossing the runway end to a 295 degree heading, only during peak operating periods when traffic warrants.

Tables C-16 and **C-17** provide the proportion of operations assigned to each of the flight tracks that were modeled for the Future (2012) NCP. Alternative NA-E recommends a 15-degree divergent turn for departures off of Runway 28R. For this procedure, new departure tracks were modeled that followed this course. It was

assumed that this procedure would be used by large jets and regional jets during times when peak operational conditions necessitated. Analysis of projected hourly operations indicates that peak operating levels which would require the divergent turn would occur approximately 10 percent of the time. **Exhibit C-20** depicts the flight tracks of the Alternative NA-D and NA-E recommended in the NCP.

C.5.5 AIRCRAFT WEIGHT AND TRIP LENGTH

The departure trip length distribution discussed for the Future (2012) Baseline would remain the same for the Future (2012) Baseline and the Future (2012) NCP condition.

C.5.6 GROUND RUN-UP NOISE

The number, type, and duration of engine run-ups discussed for the future (2012) Baseline would remain the same as modeled for the Future (2012) NCP condition.

Table C-16
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) NCP
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	AJW1	2.5%	0.1%	0.0%	1.2%	0.0%
10L	AJW2	3.9%	0.2%	0.0%	0.2%	0.0%
10L	AJW3	3.0%	0.0%	0.0%	0.0%	0.0%
10L	APW1	0.7%	0.6%	0.0%	0.4%	1.1%
10L	APW2	0.3%	0.5%	0.0%	0.4%	1.1%
10L	APW3	0.0%	0.0%	0.0%	0.0%	0.0%
10L	APW4	0.0%	0.1%	0.0%	0.0%	0.0%
10L	ARW1	0.4%	2.1%	0.0%	0.0%	0.0%
10L	ARW2	0.0%	11.2%	4.5%	16.2%	10.3%
10L	ARW3	0.0%	2.5%	0.0%	1.5%	1.1%
10X	AJS1	6.3%	0.0%	0.0%	3.0%	0.0%
10X	AJS2	9.8%	0.6%	0.0%	0.5%	0.0%
10X	AJS3	2.1%	0.0%	0.0%	0.0%	0.0%
10X	AJS4	4.5%	0.1%	0.0%	0.0%	0.0%
10X	APS1	0.0%	0.0%	0.0%	0.3%	0.0%
10X	APS2	1.4%	2.6%	0.0%	0.0%	6.9%
10X	APS3	0.0%	1.0%	0.0%	0.3%	2.4%
10X	APS4	0.0%	0.4%	0.0%	0.0%	0.0%
10X	ARS1	0.2%	1.2%	0.0%	0.0%	0.0%
10X	ARS2	0.0%	3.6%	10.2%	2.8%	5.0%
10X	ARS3	0.0%	1.3%	0.0%	1.2%	0.5%
10X	ARS4	0.0%	3.0%	7.1%	4.0%	6.4%
28R	AJZ1	5.2%	0.0%	0.0%	2.8%	0.0%
28R	AJZ2	2.6%	0.0%	0.0%	0.0%	0.0%
28R	AJZ3	8.2%	0.4%	0.0%	0.6%	0.0%
28R	AJZ4	4.4%	0.1%	0.0%	0.0%	0.0%
28R	APZ1	0.0%	0.2%	0.0%	0.0%	0.0%
28R	APZ2	0.0%	1.1%	0.0%	0.0%	2.1%
28R	APZ3	1.0%	2.0%	0.0%	0.0%	7.7%
28R	APZ4	0.0%	0.3%	0.0%	0.0%	0.0%
28R	ARZ1	0.4%	4.6%	0.0%	0.0%	0.0%
28R	ARZ2	0.0%	14.8%	15.9%	15.6%	4.9%
28R	ARZ3	0.0%	5.6%	3.3%	3.7%	0.0%
28R	ARZ4	0.4%	11.7%	13.3%	21.8%	9.7%

Table C-16, *Continued*
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) NCP
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28X	AJT1	10.5%	0.0%	0.0%	5.4%	0.0%
28X	AJT2	8.4%	0.0%	3.0%	0.0%	0.0%
28X	AJT3	4.7%	0.0%	0.0%	0.0%	0.0%
28X	AJT4	16.5%	0.9%	0.0%	1.1%	0.0%
28X	APT1	0.0%	0.3%	0.0%	0.0%	0.0%
28X	APT2	2.3%	4.0%	0.0%	0.0%	11.6%
28X	APT3	0.0%	1.8%	0.0%	0.0%	1.3%
28X	APT4	0.0%	0.7%	0.0%	0.0%	0.0%
28X	APT5	0.0%	1.0%	0.0%	0.0%	5.8%
28X	ART1	0.4%	2.0%	0.0%	0.0%	0.0%
28X	ART2	0.0%	3.4%	3.1%	7.3%	8.4%
28X	ART3	0.0%	7.1%	18.6%	6.5%	5.3%
28X	ART4	0.0%	3.1%	5.0%	1.8%	1.3%
28X	ART5	0.0%	3.8%	16.0%	1.5%	6.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%

Day: 7:00 a.m. to 9:59 p.m.
Night: 10:00 p.m. to 6:59 a.m.
Note: 10X/28X denotes relocated runway 10R/28L
Alternative Tracks shown in **Bold**

Source: ANOMS data, Landrum & Brown, 2007.

Table C-17
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) NCP
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	DJW1	2.7%	0.0%	0.0%	0.0%	0.0%
10L	DJW2	0.6%	0.0%	0.0%	0.0%	0.0%
10L	DJW3	0.7%	0.0%	0.0%	0.0%	0.0%
10L	DJW4	2.6%	0.0%	0.0%	0.0%	0.0%
10L	DJW5	1.0%	0.0%	0.0%	0.0%	0.0%
10L	DPW1	0.0%	0.0%	3.9%	0.0%	0.1%
10L	DPW2	0.0%	0.0%	0.0%	0.0%	2.2%
10L	DPW3	0.0%	0.0%	9.2%	0.0%	2.8%
10L	DPW4	0.0%	0.0%	0.0%	0.0%	2.0%
10L	DRW1	0.0%	2.0%	0.0%	0.0%	0.0%
10L	DRW2	0.0%	2.7%	0.0%	2.2%	0.0%
10L	DRW3	0.0%	7.8%	0.0%	2.9%	0.0%
10L	DRW4	0.0%	3.5%	0.0%	1.0%	0.0%
10L	DRW5	0.0%	1.7%	0.0%	0.0%	0.0%
10X	DJS1	5.4%	0.0%	0.0%	0.0%	0.0%
10X	DJS2	1.4%	0.0%	0.0%	0.0%	0.0%
10X	DJS3	3.8%	0.0%	0.0%	0.0%	0.0%
10X	DJS4	5.2%	0.0%	0.0%	0.0%	0.0%
10X	DJS5	6.5%	0.0%	0.0%	0.0%	0.0%
10X	DPS1	0.0%	0.0%	0.0%	0.0%	7.8%
10X	DPS2	0.0%	0.0%	13.3%	0.0%	7.9%
10X	DPS3	0.0%	0.0%	0.0%	0.0%	5.5%
10X	DPS4	0.0%	0.0%	1.8%	0.0%	1.7%
10X	DPS5	0.0%	0.0%	1.8%	0.0%	0.0%
10X	DRS1	0.0%	1.4%	0.0%	0.0%	0.0%
10X	DRS2	0.0%	1.4%	0.0%	6.9%	0.0%
10X	DRS3	0.0%	2.8%	0.0%	3.8%	0.0%
10X	DRS4	0.0%	2.4%	0.0%	7.5%	0.0%
10X	DRS5	0.0%	3.4%	0.0%	3.4%	0.0%
10X	DRS6	0.0%	0.9%	0.0%	2.4%	0.0%
28R	DJZ1	1.3%	0.0%	0.0%	0.0%	0.0%
28R	DJZ2	8.9%	0.0%	0.0%	0.0%	0.0%
28R	DJZ3	4.8%	0.0%	0.0%	0.0%	0.0%
28R	DJZ4	1.9%	0.0%	0.0%	0.0%	0.0%
28R	DJZ5	1.7%	0.0%	0.0%	0.0%	0.0%
28R	DJZ6	1.7%	0.0%	0.0%	0.0%	0.0%
28R	DPZ1	0.0%	0.0%	18.2%	0.0%	3.7%
28R	DPZ2	0.0%	0.0%	8.6%	0.0%	8.9%
28R	DPZ3	0.0%	0.0%	9.7%	0.0%	0.3%

Table C-17, *Continued*
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2012) NCP
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28R	DPZ4	0.0%	0.0%	0.0%	0.0%	1.8%
28R	DPZ5	0.0%	0.0%	0.0%	0.0%	3.1%
28R	DPZ6	0.0%	0.0%	0.0%	0.0%	3.1%
28R	DRZ1	0.0%	5.6%	0.0%	1.5%	0.0%
28R	DRZ2	0.0%	7.0%	0.0%	6.4%	0.0%
28R	DRZ3	0.0%	2.8%	0.0%	0.0%	0.0%
28R	DRZ4	0.0%	2.1%	0.0%	0.0%	0.0%
28R	DRZ5	0.0%	12.4%	0.0%	7.0%	0.0%
28R	DRZ6	0.0%	2.5%	0.0%	0.0%	0.0%
28R	DRZ7	0.0%	8.6%	0.0%	2.5%	0.0%
28R	**DJZ1E**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28R	**DJZ3E**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28R	**DJZE**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28R	**DRZE**	**0.0%**	**1.7%**	**0.0%**	**0.0%**	**0.0%**
28R	**DRZ1E**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**0.0%**
28R	**DRZ3E**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DJT1**	**4.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DJT2**	**3.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DJT3**	**28.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DJT4**	**7.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DJT5**	**4.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
28X	**DPT1**	**0.0%**	**0.0%**	**16.8%**	**0.0%**	**16.6%**
28X	**DPT2**	**0.0%**	**0.0%**	**9.0%**	**0.0%**	**19.8%**
28X	**DPT3**	**0.0%**	**0.0%**	**7.8%**	**0.0%**	**0.6%**
28X	**DPT4**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.5%**
28X	**DPT5**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**7.7%**
28X	**DRT1**	**0.0%**	**7.4%**	**0.0%**	**13.5%**	**0.0%**
28X	**DRT2**	**0.0%**	**2.7%**	**0.0%**	**15.0%**	**0.0%**
28X	**DRT3**	**0.0%**	**3.3%**	**0.0%**	**0.0%**	**0.0%**
28X	**DRT4**	**0.0%**	**5.0%**	**0.0%**	**6.0%**	**0.0%**
28X	**DRT5**	**0.0%**	**6.0%**	**0.0%**	**18.0%**	**0.0%**
Total		100%	100%	100%	100%	100%

Day: 7:00 a.m. to 9:59 p.m.

Night: 10:00 p.m. to 6:59 a.m.

Note: 10X/28X denotes relocated runway 10R/28L

Alternative Tracks shown in **Bold**

Source: ANOMS data, Landrum & Brown, 2007.

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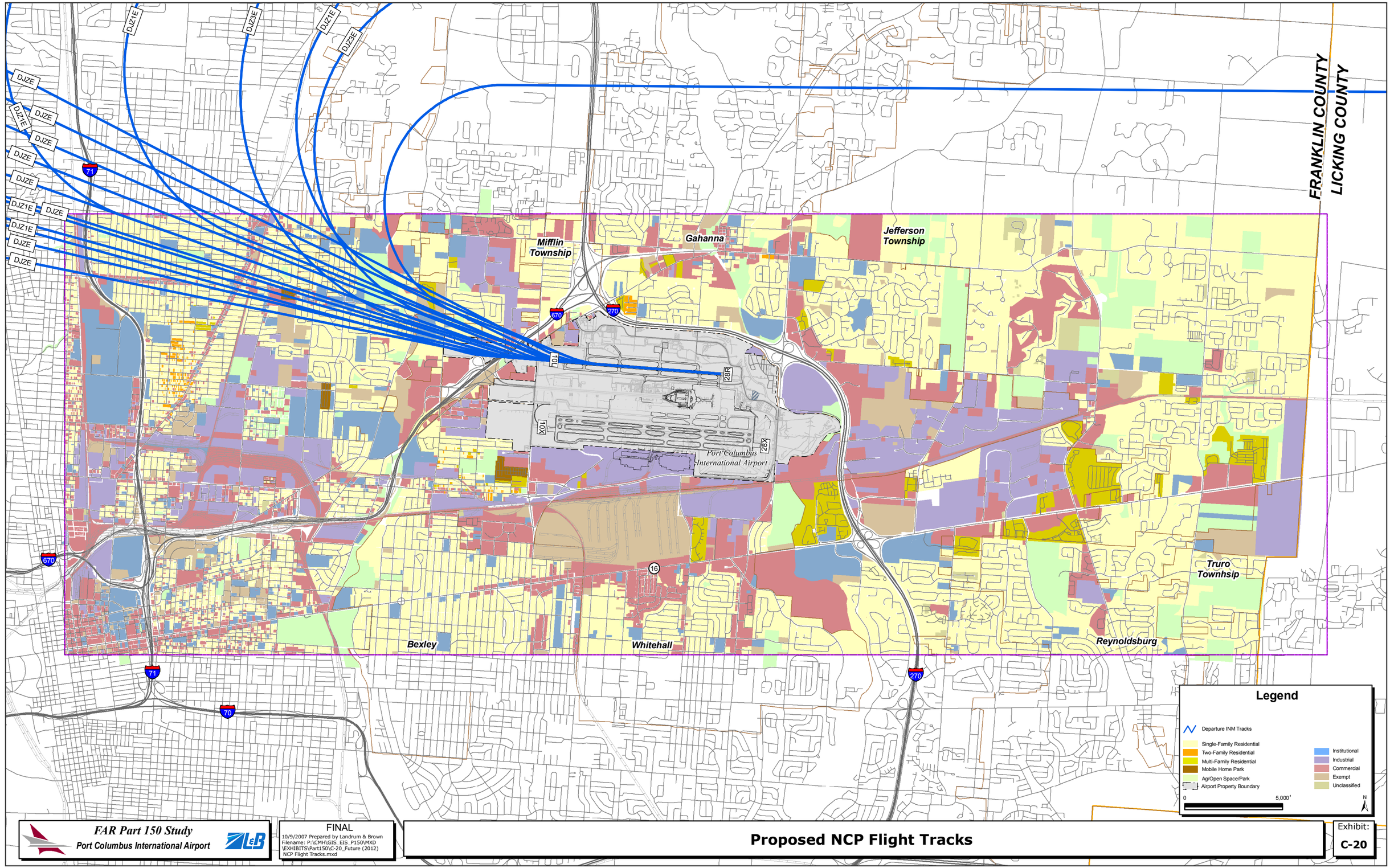

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\C-20_Future (2012) NCP Flight Tracks.mxd

Proposed NCP Flight Tracks

Exhibit:
C-20

APPENDIX D
LAND USE ASSESSMENT METHODOLOGY

Identifying and evaluating land uses within the airport environs is an important step in the Part 150 process. This evaluation is necessary to identify residential and other noise-sensitive land uses within the airport environs. The land use assessment includes examining land use classifications and zoning patterns, surveying and mapping, local assessments of sound insulation requirements, capital improvement programs, growth risk assessment, and airport environs land use compatibility plans; applying the FAA Part 150 guidelines for land use compatibility, and policies on acquisition, easements, and disclosures; and airport overlay districts. A Geographic Information System (GIS) land use database was also developed to facilitate the identification of land uses that are incompatible with airport operations.

D.1 AIRPORT ENVIRONS

The airport environs (Chapter Two, *Affected Environment*) refers to the regional area that may experience the broader effects from the noise of aircraft overflight as well as social or socioeconomic impacts. Consequently, the boundary of the airport environs was formed by assessing both the location of flight tracks and the general area in which airport operations would have broad effects upon the community. It is in this area that a general analysis of the effects of the airport was performed. The General Study Area (GSA) was delineated by assessing both the location of flight tracks and the general area where noise levels would exceed 60 Day-Night Average Sound Level (DNL). It is within the GSA that a more detailed analysis of land use and noise compatibility was performed and future land use mitigation measures were considered.

D.1.1 LAND USE MAPPING

Maps are used to identify existing land use conditions within the GSA compared to areas impacted by noise, thereby enabling decisions to be made that will eliminate or minimize noise impacts upon noise sensitive land uses This section describes the methodology for collecting and analyzing land use data.

D.1.2 LAND USE CLASSIFICATIONS

Existing land use data was collected from the counties, municipalities, and townships within the GSA, as well as from reports generated by the Mid-Ohio Regional Planning Commission (MORPC). Land uses in the vicinity of the airport were categorized in terms of the general land use classifications presented in FAR Part 150, which include residential (single and multi-family), commercial, public/institutional, and agricultural/recreational/open space. These land uses were identified based on Franklin County's GIS database, previous Part 150 studies, additional land use surveys provided by the Columbus Regional Airport Authority (CRAA) or local jurisdictions, and was supplemented as necessary by field verification. **Table D-1** shows the generalized land use categories and examples of specific land uses that would be grouped into these general land use categories.

The existing land use pattern within the airport environs is shown in Exhibit 2-3, *Existing Land Use* in Chapter Two, *Affected Environment*.

Table D-1
GENERALIZED LAND USE CLASSIFICATIONS
Port Columbus International Airport

GENERALIZED LAND USE CATEGORY	SPECIFIC LAND USE EXAMPLES
Single-Family Residential	Single-Family Homes
Multi-Family Residential	Multi-Family Homes Apartments
Mobile Home Park	Mobile Home Parks
Commercial / Industrial	Manufacturing Warehousing Mining / Quarry / Excavating Food Service Gas Stations Retail
Public / Institutional	Schools Libraries Churches Hospitals Government Buildings
Open Space	Agricultural / Farming / Nurseries Wooded Parks / Recreation
Exempt/Unclassified	Transportation Facilities Public Utilities Parking

D.1.2.1 Land Use Data Compilation

Base mapping information, including roads, county and municipal boundaries, and land use were compiled using ArcMap, version 9.2. ArcMap is an analytical software program that allows manipulation and analysis of spatial data from a variety of sources. The base map information was then compared to flight tracks and noise contours generated by the Integrated Noise Model (INM), version 6.2. Digital road files were obtained from the Franklin County GIS database.

The 2000 U.S. Census data, at the block level, was combined with the GIS land use file to calculate the population and housing incompatibilities within the noise contours. Census data was augmented via field checking to arrive at final housing counts within the GSA and household locations were mapped in a GIS layer file. An estimated ratio of persons per household was determined based using census data and that ratio was applied to each dwelling unit. The housing and population incompatibilities within each of the noise contours were determined by overlaying the noise contour layer with the GIS land use and housing structure layers. The

number of residential structures and population within each DNL noise contour level were then determined by an automated count.

D.1.2.2 Noise-Sensitive Public Facilities

Noise-sensitive public facilities include schools, churches, libraries, hospitals, and nursing homes. The number and location of noise-sensitive public facilities within the airport environs were derived from a number of different sources. Schools, libraries, hospital, nursing homes and churches initially were extracted from the Franklin County Auditor Data. These facilities were then field-checked to verify their locations. **Table D-2** lists the noise-sensitive public facilities that are shown on **Exhibit D-1, *Existing Noise-Sensitive Public Facilities***.

Table D-2
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Schools	
S-1	Windsor Alternative Elementary School
S-2	Trevitt Elementary School
S-3	The Columbus Academy
S-4	South Mifflin Elementary School
S-5	Shepard Street School (historical)
S-6	Shepard School
S-7	School Number 5 (historical)
S-8	Saint Thomas the Apostle School
S-9	Saint Pius School
S-10	Saint Peters School
S-11	Saint Patrick's School
S-12	Saint Matthews School
S-13	Saint Dominic School
S-14	Saint Charles Seminary
S-15	Saint Augustine School
S-16	Rosemont High School
S-17	Rose More School
S-18	Rose Hill Elementary School
S-19	Pilgrim Elementary School
S-20	Ohio Dominican University
S-22	Monroe Junior High School
S-23	Milo School
S-24	Mifflin Junior High School
S-25	Mifflin High School
S-26	Maryland Avenue Elementary School
S-27	Linmoor Alternative School
S-28	Linden McKinley High School
S-29	Linden Elementary School
S-30	Lincoln Schools
S-31	Lincoln School
S-32	Lincoln High School
S-33	Lincoln Elementary School
S-34	Leonard School
S-35	Kay Avenue Elementary School
S-36	Karl F Smith Bible School
S-37	Holy Spirit School
S-38	Hamilton School
S-39	Goshen Lane Elementary School
S-40	Garfield School
S-41	Franklin Middle School
S-42	Fort Hayes Career Center
S-43	Felton School

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Schools (continued)	
S-44	Fairmoor Elementary School
S-45	Fair Elementary School
S-46	Etna Road Elementary School
S-47	CMHA Institution
S-48	Eastwood Avenue School
S-49	Eastmoor Junior High School
S-50	Eastmoor High School
S-51	Eastgate Elementary School
S-52	East Linden Elementary School
S-53	East High School
S-54	East Columbus Elementary School
S-55	East Broad Street School
S-56	Duxberry Park School
S-57	Douglas Alternative Elementary School
S-58	Columbus State Community College
S-59	Columbus School for Girls
S-60	Columbus Community College
S-61	Columbus College of Art and Design
S-62	Columbus Alternative High School
S-63	Champion Alternative Middle School
S-64	Broadleigh Elementary School
S-65	Oakland Park at Brentnell Elementary School
S-66	Bexley Junior High School
S-67	Bexley High School
S-68	Beechwood Elementary School
S-69	Arlington Park Elementary School
S-70	Agudas Achim School
S-71	Columbus State Community College
S-72	Columbus School for Girls
S-73	Waggoner Road Middle School
S-74	FCI Academy
S-75	Gladstone Elementary School
Churches	
C-1	Zion Lighthouse Spiritualist Church
C-2	World Peace Healing Temple
C-3	Woodland Christian Church
C-4	Wilson Avenue Church
C-5	Williams Temple Pentecostal Church
C-6	Welsh Presbyterian Church (historical)
C-7	Weber Road Alliance Church
C-8	Way of Holiness Church
C-9	Unveiling and Unfolding of the Truth Ministries

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Churches (continued)	
C-10	University Bible Fellowship Church
C-11	Union Tabernacle Church of God
C-12	Union Grove Baptist Church
C-14	The Greater 12th Baptist Church
C-15	Trinity Episcopal Church
C-16	Trinity Baptist Church
C-17	Triedstone Baptist Church
C-18	Travelers Rest Baptist Church
C-19	Temple of Psychic Prophecy
C-20	Temple of Faith Church of Deliverance
C-21	Temple of Faith Church
C-22	Temple Israel
C-23	Temple Beth Shalom
C-24	Taylor Station Church
C-25	Tabernacle of Christian Fellowship
C-26	Strong Tower Church of Christ
C-27	Spring Hill Baptist Church
C-28	Spanish Evangelistic Association of the Living God
C-29	Lighthouse Community Baptist Church
C-30	Solid Rock Baptist Church
C-31	Sigsbee Avenue Church of God
C-32	Shining Light Bible Mission Church
C-33	Shiloh Baptist Church
C-34	Shepard United Methodist Church
C-35	Shady Grove Baptist Church of Christ
C-36	Second Baptist Church
C-37	Sanctified Temple Church of God in Christ
C-38	Salvation Army Chapel Church
C-39	Saint Thomas the Apostle Roman Catholic Church
C-40	Saint Theresas Shrine
C-41	Saint Pius X Catholic Church
C-42	Saint Philips Episcopal Church
C-43	Saint Philip Lutheran Church
C-44	Saint Peters Evangelical Lutheran Church
C-45	Saint Pauls Episcopal Church
C-46	Living Word Church
C-47	Saint Paul African Methodist Episcopal Church
C-48	Saint Marys Macedonian Eastern Orthodox Church
C-49	Saint Mark African Methodist Episcopal Church
C-50	Saint Joseph Cathedral
C-51	Saint Johns Baptist Church
C-52	Saint John the Baptist Roman Catholic Church

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Churches (continued)	
C-53	Saint James Baptist Church
C-54	Saint Dominic Roman Catholic Church
C-55	Saint Albans Church
C-56	Ruth Temple Apostolic Original Holy Church of God
C-57	Rose of Sharon Baptist Church
C-58	Rose Hill Church of God
C-59	Reynoldsburg Baptist Church
C-60	Rehoboth Temple
C-61	Refuge Church of Christ
C-62	Purple Rose Temple of Truth Spiritualist Church
C-63	Praise Temple Christian Methodist Episcopal Church
C-64	Pleasant Hill Church of the Living God
C-65	Pilgrim Baptist Church
C-66	Pentecostal House of Prayer
C-67	Peace Baptist Mission
C-68	Pathway to Power Baptist Church
C-69	Original Glorious Church of God in Christ
C-70	Old Peace Lutheran Church
C-71	Ohio Union Steadfast Primitive Church
C-72	Northside Church of God
C-73	Northeast Church of Christ
C-74	North Linden Baptist Church
C-76	Beginning Missionary Baptist Church
C-77	New Bethlehem Baptist Church
C-78	Mount Zion Missionary Baptist Church
C-79	Mount Zion Church of God in Christ
C-80	Mount Zion Church of God in Christ
C-81	Mount Victory Baptist Church
C-82	Mount Vernon Avenue Missionary Baptist Church
C-83	Mount Vernon African Methodist Episcopal Church
C-84	Mount Sinai Missionary Baptist Church
C-85	Mount Sinai Holy Temple
C-86	Great St. Paul Church
C-87	Mount Pisgah Baptist Church
C-88	Mount Pisgah Baptist Church
C-89	Mount Nebo Baptist Mission
C-90	Living Charity Church
C-91	Mount Herman Baptist Church
C-92	Mount Calvary Holy Church
C-93	Metropolitan Baptist Church
C-94	Meredith Temple Church of God in Christ
C-95	Maynard Avenue Baptist Church

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Churches (continued)	
C-96	Masjid Al-Islam Mosque
C-97	Man in Christ Ministries
C-98	Loving Charity Baptist Church
C-99	Love Zion Baptist Church
C-100	Lord of Life Fellowship Church
C-101	Lord Jesus Christ of Apostolic Faith Church
C-102	Living Faith Apostolic Church
C-103	Little Flock Church
C-104	Linden United Methodist Church
C-105	Linden Spiritualist Church
C-106	Lee Avenue United Methodist Church
C-107	Kingdom Hall of Jehovahs Witnesses
C-108	New Horizons Christian Fellowship Church
C-109	Jordan Baptist Church
C-110	Jireh House Full Gospel Church
C-111	Jesus People Evangelistic Center
C-112	Jerusalem Tabernacle Baptist Church
C-113	Jerusalem Baptist Church
C-114	Islamic Center Church
C-115	International Gospel Center
C-116	Independent Missionary Church of God in Christ
C-117	House of God Holy Church
C-118	Holy Temple Church of God
C-119	Holy Church of God
C-120	Holy Carmel Holy Church of America
C-121	Agudas Achim Congregation
C-122	Apostolic Assembly of Our Lord Jesus Christ Church
C-123	Apostolic Faith Tabernacle
C-124	Apostolic Glorious Church
C-125	Asbury Church
C-126	Bethany Presbyterian Church
C-127	Bethel African Methodist Episcopal Church
C-128	Bethel Baptist Church
C-129	Bethel Holy Temple Church of God
C-130	Broad Street Christian Church
C-131	Broad Street Presbyterian Church
C-132	Broad Street United Methodist Church
C-133	Calhouns Memorial Temple Church
C-134	Calvary Tremont Baptist Church
C-135	Power of Faith Ministries
C-136	Centenary United Methodist Church
C-137	Christ Memorial Baptist Church

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Churches (continued)	
C-138	Christian Home Ministry Church
C-139	Church in Jesus Christ
C-140	Pleasant Green Baptist Church
C-141	Church of Christ Apostolic Faith
C-142	Church of God and Saint of Christ
C-143	Church of God of Franklin County
C-144	Church of God of Prophecy
C-145	Church of Spiritual Unity
C-146	Church of Universal Forces
C-147	Church of the Living God
C-148	Church of the Living God
C-149	Columbus Chinese Christian Church
C-150	Columbus Eastwood Seventh Day Adventist Church
C-151	Community Baptist Church
C-152	Consolidated Baptist Church
C-153	Corinthian Baptist Church
C-154	Cornerstone Church
C-156	Deliverance Church of God
C-157	East Linden United Methodist Church
C-158	East Mount Olivet Baptist Church
C-159	Eastminster Church
C-160	Eliezer Church of Our Lord Jesus Christ
C-161	Emmanuel Community Baptist Church
C-162	Emmanuel Holy Church of God
C-163	Emmanuel Tabernacle Baptist Church
C-165	Fairmoor Presbyterian Church
C-166	Faith Mission United Methodist Church
C-167	Faith Tabernacle
C-168	Faith Tabernacle Church of God in Christ
C-169	Faith Temple Apostolic Holiness Church of God
C-170	Faith Temple House of Prayer
C-171	Christian Outreach Ministries
C-172	First Baptist Church
C-173	First Congregational Church
C-174	First Spiritualist Church of Sprit Revelation
C-175	First Spiritualist Temple
C-176	Flintridge Baptist Church
C-177	Free Pentecostal Church of God
C-178	Freewill Pentecostal Holiness Church of Christ
C-179	Crack House Ministries Church
C-180	Annointed Touch Ministries
C-181	Galilee Baptist Church

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
	Churches (continued)
C-182	Gay Tabernacle Baptist Church
C-183	Gods House of Prayer
C-184	Good Neighbor Community Church
C-185	Good Shepherd Baptist Church
C-186	Good Shepherd Church
C-187	Goodwill Baptist Church
C-188	Gospel Tabernacle Church
C-189	Grace Bible Baptist Church
C-190	Grace Temple
C-191	Greater Emmanuel Apostolic Faith Church
C-192	Greater Emmanuel Church
C-193	Greater Harvest Baptist Church
C-194	Greater Liberty Temple Church
C-195	Greater Life Evangelistic Temple
C-196	Greater Light Church of the Living God
C-197	Havens Corners Church of Christ in Christian Union
C-198	Higher Ground Always Abounding Assembly Church
C-199	Highway Church of God
C-200	Lutheran Village of Columbus
C-201	Victory In Pentecost
C-202	Mifflin Presbyterian Church
C-203	Christian Center Church
C-204	Shepherd Church of the Nazarene and Christian School
C-205	Everlasting Life Ministries
C-206	New Tabernacle Church of God in Christ
C-207	Ephphatha New Ministries
C-208	Paradise Baptist Church
C-209	Temple of Faith Church of the Living God
C-210	Aenon Miss Baptist Church
C-211	Faith Comes by Hearing Christian Center
C-212	Apostolic House of Worship
C-213	Redeemed Christian Church of God
C-214	Mt. Judia Church
C-215	United Baptist Church
C-216	Country Fellowship Church
C-217	East Pointe Christian Church
C-218	East Side Brethren Grace Church
C-219	St. Mary Church
C-220	Church of God Militant Pillar and the Ground of Truth
C-221	Columbus Christian Center Church
C-222	Eternal Life Church of Christ
C-223	Advent United Church of Christ

Table D-2, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name
Churches (continued)	
C-224	Jerusalem Deliverance Church of God in Christ
C-225	The House of God Church
C-226	Terry Lee Center
C-230	St. Matthews Church
C-231	Greater Liberty Temple
C-232	Wonderland Community Church
C-233	Greater Works Ministries
Hospitals	
H-1	Saint Anthony's Hospital
H-2	Mount Carmel Hospital East
Libraries	
L-1	Gahanna Library
L-2	Columbus Library Linden Branch
L-3	Martin Luther King Library
L-4	Shepard Library
L-5	Whitehall Library

Source: Landrum & Brown, 2007.

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GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Bexley

Whitehall

Reynoldsburg

Truro Townhsip

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

Legend

- Church
- School
- Library
- Hospital
- Airport Property Boundary

0 4,000 N

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\D-1_Existing Noise-Sensitive Public Facilities.mxd

Existing Noise-Sensitive Public Facilities

Exhibit:
D-1

D.1.2.3 Existing Historic Sites

Sites of historic significance near CMH are identified through the National Register of Historic Places. "The National Register of Historic Places (NRHP) is the official list of properties recognized by the federal government as worthy of preservation for their local, state, or national significance in American history, architecture, archaeology, engineering, or culture. Although the National Register is a program of the National Park Service, it is administered at the state level by each respective state. In Ohio, the National Register program is administered by the Ohio Historic Preservation Office." A listing of sites in Ohio that are included in the NRHP is accessible online at: http://dbs.ohiohistory.org/hp/index.cfm. Historic sites within the GSA are listed in Table 2-1 and shown on Exhibit 2-5 in Chapter Two, *Affected Environment*.

D.2.2 PREVENTATIVE LOCAL LAND USE CONTROLS

The following provides a brief discussion of the types of preventative land use controls available to the local jurisdictions to assist in reducing non-compatible land uses. Ultimately, it is the responsibility of the local jurisdictions to implement these land use controls. However, the CRAA is a willing partner in that effort and continually reaches out to the local jurisdictions to provide assistance.

D.2.2.1 Zoning

Zoning is one of the primary tools available to local communities to ensure land use compatibility. Zoning ordinances and regulations are intended to promote public health, safety, and welfare by regulating the use of the land within a jurisdiction based on factors such as land use compatibility and existing and expected socioeconomic conditions.

D.2.2.2 Subdivision Regulations

Subdivision regulations apply in cases where a parcel of land is proposed to be divided into lots or tracts. They are established to ensure the proper arrangement of streets, adequate and convenient open space, efficient movement of traffic, avoidance of congestion, sufficient and properly-located utilities, access for fire-fighting and rescue vehicles, and the orderly and efficient layout and use of land.

Subdivision regulations can be used to enhance noise-compatible land development by requiring developers to plat and develop land so as to minimize noise impacts or reduce the noise sensitivity of new development. The regulations can also be used to protect the airport proprietor from litigation for noise impacts at a later date. The most common requirement is the dedication of a noise or avigation easement to the local government by the land subdivider as a condition of development approval. The easement authorizes overflights of the property, with the noise levels attendant to such operations. This information is then attached to the property's plat notice.

D.2.2.3 Building Codes

Building codes regulate the construction of buildings, ensuring that they are built to safe standards. Sound insulation may be required in new homes, offices, and institutional buildings to mitigate the effects of high aircraft noise levels. Building code requirements intended for energy efficiency also provide acoustical insulation benefits. Caulking of joints, continuous sheathing, dead air spaces, ceiling and wall insulation, solid core doors, and double-pane windows can attenuate aircraft noise while conserving energy used for home heating and cooling.

Not all sound insulation needs are met by typical energy-conserving building methods. For example, field research has found that some modern and highly energy-efficient storm window designs are less efficient for sound insulation than some older designs that allow for larger dead air spaces. Other sound insulation measures that may not be justifiable for energy efficiency are vent baffling and year-round, closed-window ventilation systems.

Building codes apply to existing buildings only when remodeling or expansion is contemplated. Amendments to building codes do not help to correct noise problems in developed areas. In developed areas, sound insulation must be applied retroactively to existing structures.

D.2.2.4 Capital Improvements Programs

Capital improvements programs are multi-year plans, typically covering five or six years, which list major capital improvements planned to be undertaken during each year. Most capital improvements have no direct bearing on noise compatibility; few municipal capital improvements are noise-sensitive. The obvious exceptions to this are schools and, in certain circumstances, libraries, medical facilities, and cultural/recreational facilities.

Some capital improvements may have an indirect, but more profound, relationship to noise compatibility, however. For instance, sewer and water facilities may open up large vacant areas for private development of noise-sensitive residential uses. In contrast, the same types of facilities, sized for industrial users, could enable industrial development in a noise-impacted area that might otherwise be attractive for residential development.

D.2.2.5 Growth Risk Assessment

Before evaluating the impact of aircraft noise within the airport environs, it is important to understand the likelihood for the future development of residential and other noise-sensitive land uses, especially in the planning time frame. Understanding development trends in the airport vicinity is of critical importance in noise compatibility planning, because future residential growth can potentially constrain airport operations, if that growth occurs beneath aircraft flight tracks and within areas subject to high noise levels.

The growth risk analysis focuses primarily on undeveloped land which is planned and zoned for residential use. It is recognized that additional development may occur through in-filling and redevelopment of currently developed areas.

The methodology for analyzing potential growth risk is as follows:

- Identify all vacant, unplatted tracts of land zoned for future residential development with the greatest potential for being developed within the next five years.
- Calculate the area of the tracts; apply a factor accounting for development inefficiencies and the platting of streets; multiply by dwelling unit densities specified in the zoning ordinance; and multiply by household size to obtain the population holding capacity of presently vacant, unplatted land.
- Sum the above population holding levels to determine the total population holding capacity of the study area.

The final step in the growth risk analysis is to estimate whether the development is likely to occur before or after the year for which future noise exposure has been calculated. This tends to be quite speculative and should be regarded only as a general indicator of the potential risk of increases in land use incompatibility.

D.2.3 CORRECTIVE LAND USE MITIGATION ALTERNATIVES

The following is a brief discussion of typical corrective or remedial land use mitigation alternatives included in Part 150 studies.

D.2.3.1 Sound Insulation of Homes

A program for sound insulation of residences is always voluntary on part of the homeowner and is generally focused on residences located in a 65 DNL to 70 DNL noise contour. Other than the obvious benefit of reducing interior noise levels, a sound insulation program maintains the land use of the area and generally increases the value of the properties. Unfortunately, sound insulation treatments do not reduce the noise outside the residence and as such the benefits of the treatments are reduced when doors and windows are open.

D.2.3.2 Acquisition of Land or Interests in Land for Noise Compatibility

A program for property acquisition can be either voluntary (participation in the program is voluntary on the part of the property owner), or involve condemnation (local power of eminent domain). Acquisition as mitigation for noise impacts would always be voluntary.

Land Acquisition to Change Land Use

If the acquisition of property results in a change in land use, from incompatible to compatible with airport operations (e.g., airport/transportation, commercial, or industrial), the property owner would be eligible for relocation assistance and moving expenses, consistent with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act*. The property would be acquired, residents would be relocated, and the property would be converted to a compatible land use. This would prevent further development of incompatible land uses. The land acquisition program should assure that the subsequent land use is consistent with local land use plans and policies, including compatibility with noise exposure levels in the area. Because the acquisition is to result in a change in land use, the local jurisdiction may decide to apply its power of eminent domain.

Land Acquisition without Change to Land Use

The acquisition of incompatible property where no change in land use would result would be a "voluntary" acquisition program, where participation in the program would be voluntary on the part of the property owner. The reason for such a voluntary program is most often due to the owner's inability to the sell the property at fair market value. Acquisition procedures would be implemented in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* and relocation benefits would not apply.

D.2.3.3 Purchase Guarantee

Purchase guarantee is a program whereby the airport sponsor agrees to purchase a residence for fair market value should the owner be unable to sell the property on the open market because of noise impacts. Participation in this program is voluntary on the part of the property owner and is implemented in areas where the land use is not going to change. In order to protect potential buyers a stipulation of this program requires that the seller disclose to the buyer the airport noise exposure on the property and the intention of the airport sponsor to retain an easement on the property. Acquisition procedures would be implemented in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* and relocation benefits would not apply.

D.2.3.4 Avigation Easements

Acquisition of avigation easements should be used to alleviate conflicts if no other land use controls are viable or in some cases, in lieu of outright acquisition of the land. The easement would be noted on the property deed and passed on to any subsequent owners of the property.

Amending local zoning and subdivision regulations to provide for the dedication of an easement to the airport sponsor as a condition of approval for residential rezoning or subdivision plats within the 65 DNL noise contour would alert

developers, lenders, and prospective purchasers to the proximity of the airport and to the existence of a potential noise issue. The avigation easement would also protect the airport from future litigation by purchasers of the rezoned or subdivided property.

There is a constitutional issue raised by requiring dedication of an easement as well as imposing more vigorous and expensive standards for construction within the airport environs. Government may not require a person to give up a constitutional right (i.e., a public use) in exchange for a discretionary benefit conferred by the government unless there is a reasonable relationship between a legitimate governmental objective and the condition that is imposed on the developer. Moreover, the exaction demanded by the permit or condition must be in proportion to the impact of the proposed development that is sought to be alleviated. Whether that balance exists requires an individualized determination. If it were determined not to meet these standards, then the legislation would either be unenforceable or its enforcement would constitute a taking requiring the payment of just compensation.

D.2.3.5 Fair Disclosure Policy

A method can be developed insuring that buyers of residential property within the airport environs receive fair disclosure of the location of the property relative to the airport by requiring that sellers of residential property in the airport environs deliver to buyers a purchase disclosure notice consisting of a copy of the Noise Overlay District Ordinance and Map with a statement that the property is located within the Airport Noise Overlay District. It may also require that all advertisements and listings for sale of residentially zoned or improved property in the Noise Overlay District include a statement about aircraft noise, such as -- “Not recommended for persons who may be easily disturbed by aircraft noise.” Finally, solicitation of voluntary inclusion of the notice in Multiple Listing Services by the real estate profession alerts potential buyers of property to the noise conditions.

D.3 LAND USE MITIGATION ALTERNATIVES

Unlike many noise abatement measures, the implementation of Part 150 land use measures is not always under the control of the airport sponsor or the FAA. Therefore, it is necessary to understand the role local jurisdictions and planning organizations may play in implementing the Part 150 Noise Compatibility Program (NCP).

D.3.1 ROLE OF LOCAL JURISDICTIONS AND PLANNING ORGANIZATIONS IN NOISE COMPATIBILITY PLANNING

Local planners and elected officials are typically responsible for local land use zoning and control. These entities and individuals prepare comprehensive plans, as well as review and implement zoning and land use regulations in a manner that may consider the effect of those actions as they relate to aviation activity and noise exposure.

The responsibility of regulating land use around an airport, in order to minimize existing and prevent future land use incompatibilities, is traditionally delegated to state and local governments. In addition to regulating land uses, local municipalities may facilitate the acquisition of property or the initiation of sound insulation programs as a means to mitigate and prevent future incompatible land uses resulting from airport noise. At airports with an approved FAR Part 150 Study, an airport sponsor may apply directly to the FAA for funding of noise mitigation projects.

Local land use planners and elected officials were included in the membership of the Planning Advisory Committee (PAC) and participated in the study throughout the process. The consultants met with local planners and elected officials when needed and contacted them via mail and telephone to obtain their feedback on land use control alternatives. Appendix G, *Public Involvement*, includes correspondence with the land use planners and elected officials.

Implementation of the recommended land use measures LU-1, LU-2, and LU-10 is at the discretion of the CRAA and dependent upon FAA approval and funding. Implementation of the recommended measures LU-3 and LU-9 is solely at the discretion of the municipalities. Land use measure LU-12 requires coordination and approval by local jurisdictions.

D.3.1.1 Zoning Data Compilation

Specific zoning information from each jurisdiction within the GSA was collected and reviewed in order to identify tools for prohibiting incompatible development and encouraging compatible development near the airport. The following section summarizes the zoning enforcement undertaken by each jurisdiction. **Table D-3** shows the generalized zoning categories (rural residential, low-density residential, medium to high-density residential, commercial, industrial, and recreational) as shown on the **Exhibit D-2** and the specific zoning classifications for each jurisdiction that are grouped into these generalized zoning categories.

D.3.1.1.1 Airport Environs Overlay

The previous Part 150 Study recommended the establishment of an Airport Environ Overlay (AEO) to assist in controlling residential development within the higher noise levels resulting from airport activity. Two jurisdictions within the GSA, the City of Columbus and Franklin County, have adopted the AEO to limit development within areas that are significantly impacted by airport noise. The local ordinances are based on model regulations developed by the MORPC in 1991. The City of Columbus adopted the AEO in 1994 and Franklin County adopted a similar ordinance in 1996. Both ordinances added an overlay zone that established additional development standards and criteria for property within areas that are significantly impacted by noise. The AEO ordinances establish subdistricts according to the 65+, 70+, and 75+ DNL as indicated by the most recently published NEM. Within these subdistricts, land use is regulated to prevent non-compatible development that is incompatible with high levels of aircraft noise. The overlay

zone boundary changes accordingly with updates to the Noise Exposure Map (NEM) and is therefore not static. Specific regulations from each jurisdiction's zoning ordinance regarding the application of the AEO are discussed in the following sections.

Franklin County

Franklin County administers planning and zoning for the unincorporated areas including Mifflin and Truro Townships. Ohio Revised Code 303.02 enables County Commissioners to regulate building and land use in unincorporated territory for public purpose. The Franklin County Commissioners most recently amended and readopted the Franklin County Code in June 2000. In addition to standard overlay zones, the Franklin County Zoning Code includes the AEO District that restricts development of noise-sensitive land uses within noise impacted areas according to the latest published NEM.

Jefferson Township

Jefferson Township administers its zoning code through its Zoning Resolution, which was last amended in November 2003. Most of the land within the Township is zoned as low-density residential with an industrial area centered along Reynoldsburg-New Albany Road and the railroad.

City of Bexley

Zoning in the City of Bexley is set forth in the Codified Ordinances of Bexley, Part 12, Planning and Zoning Code. Much of the land in Bexley is zoned for either low to medium density residential.

City of Columbus

Land use development and zoning in the City of Columbus is guided by the City's Comprehensive Plan and neighborhood plans. Zoning restrictions are regulated by the city Zoning Ordinance. Much of the area west of the airport is zoned medium density residential or industrial. Columbus has recently annexed territory to the east of the airport for new residential subdivisions. The Columbus Zoning Ordinance has includes the AEO zone that restricts development of noise-sensitive land uses corresponding to the most recently published NEM.

City of Gahanna

Zoning is guided by the City of Gahanna Land Use Plan, updated in October 2002 and regulated by the Codified Ordinances of the City of Gahanna, Part Eleven, Planning and Zoning Code. Much of the city territory to the north and northeast of the airport is zoned as low- to medium-density residential. A business district is located to the north of the airport. To the east of the airport most of the land is zoned as commercial or industrial.

City of Reynoldsburg

The City of Reynoldsburg last amended its zoning code in November 2002. Much of the land within the General Study Areas is zoned low-density and medium-density residential.

City of Whitehall

The City of Whitehall zoning regulations are established by the Codified Ordinances of the City of Whitehall, Part Eleven, Planning and Zoning Code. There is a mix of residential, commercial and industrial areas within the city.

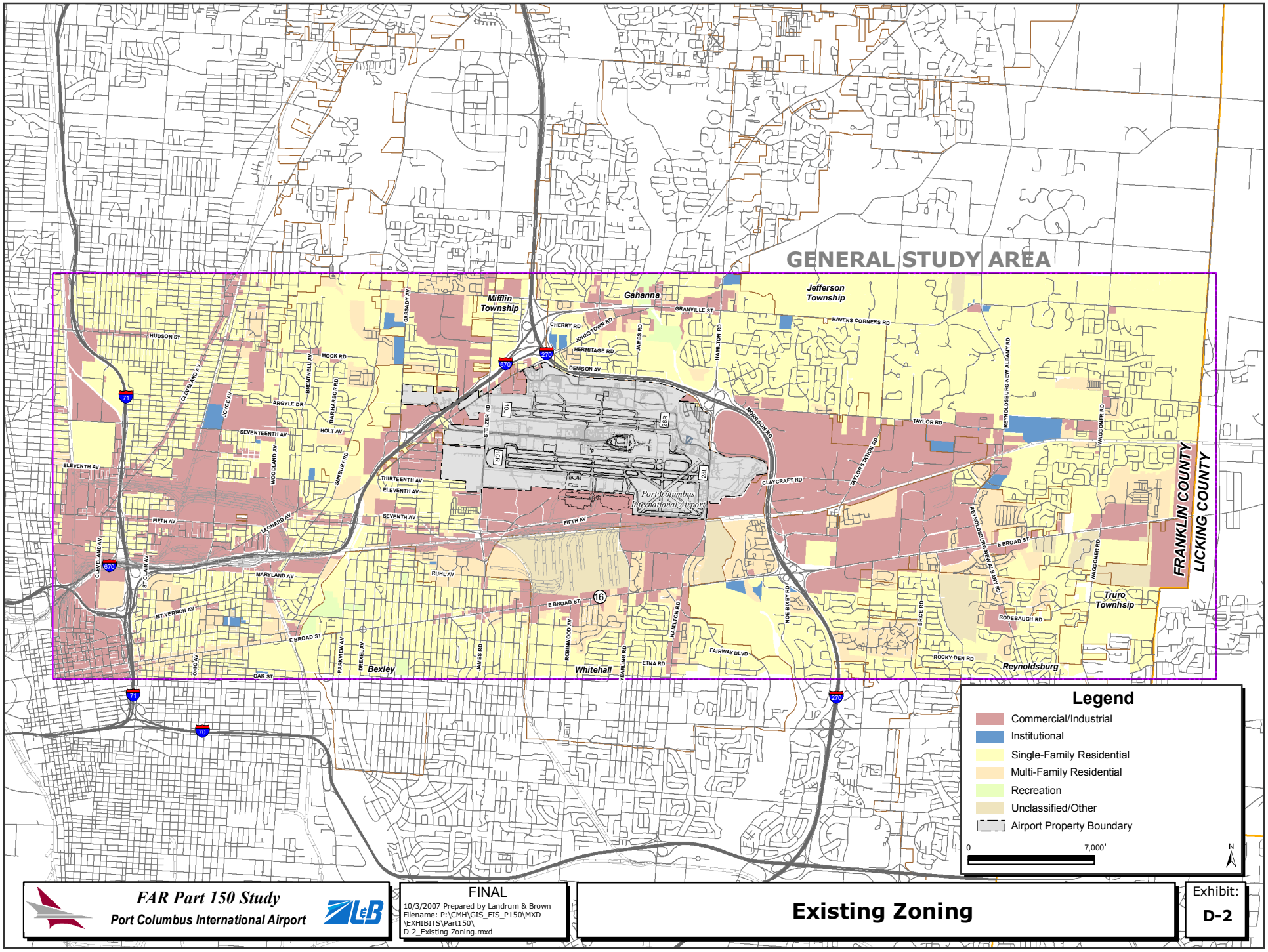
GENERAL STUDY AREA
Mifflin Township
Gahanna
Jefferson Township
Bexley
Whitehall
Reynoldsburg
Truro Townhsip
FRANKLIN COUNTY
LICKING COUNTY
Port Columbus International Airport
Legend
Commercial/Industrial
Institutional
Single-Family Residential
Multi-Family Residential
Recreation
Unclassified/Other
Airport Property Boundary
0
7,000'
N
FAR Part 150 Study
Port Columbus International Airport
FINAL
10/3/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\
D-2_Existing Zoning.mxd
Existing Zoning
Exhibit:
D-2

Table D-3
GENERALIZED ZONING CLASSIFICATIONS
Port Columbus International Airport

Code	Classification	Jurisdiction
Low-Density Residential[1]		
R-1	Low-Density Residential	Bexley
R-2	Intermediate-Density Residential	Bexley
LR	Limited Rural Residential	Columbus
R	Rural	Columbus
RRR	Restricted Rural Residential	Columbus
R	Rural	Franklin County
ER-1, ER-2	Estate Residential	Gahanna
SF-1	Single Family Residential	Gahanna
RURAL	Countryside Residential	Jefferson Township
PRD	Planned Residential District	Jefferson Township
(RSR) R-1	Restricted Suburban	Jefferson Township
R-1	Residence Single	Reynoldsburg
Medium to High-Density Residential[2]		
R-6	High-Density Residential	Bexley
R-3	Medium-Density Residential	Bexley
PUR	Planned Unit Residential	Bexley
MHD	Manufactured Home Development District	Columbus
R-1, R-2, R-3, R-4, RF2	Residential	Columbus
SR	Suburban Residential	Columbus
R-8	Restricted Urban Residential	Franklin County
OG-1	Downtown Single Family Residential	Gahanna
PUD	Planned Unit Development	Gahanna
SF-2, SF-3, R-4	Single Family Residential	Gahanna
PSRD	Planned Suburban Residential District	Jefferson Township
SPRD	Suburban Periphery Residential District	Jefferson Township
R-2	Residence Single	Reynoldsburg
R-20	Townhouse	Reynoldsburg
R-3	Residence Single	Reynoldsburg
R-1, R-2, R-3, R-4	Residential District	Whitehall

.

Table D-3, *Continued*
GENERALIZED ZONING CLASSIFICATIONS
Port Columbus International Airport

Code	Classification	Jurisdiction
Multi-Family Residential		
AR-1, AR-2, AR-3, AR-4, AR-12, AR-O, ARLD	Apartment-Residential	Columbus
PUD-4	Planned Unit Development-4 District	Columbus
PUD-6	Planned Unit Development-6 District	Columbus
PUD-8	Planned Unit Development-8 District	Columbus
R-12	Urban Residential	Franklin County
R-24	Suburban Apartment Residential	Franklin County
AR	Multiple Family Residential	Gahanna
MR-1	Two Family Residential	Gahanna
OG-2	Downtown Multi-Family Residential and/or Suburban Office	Gahanna
AR-2, AR-3	Residence Multiple	Reynoldsburg
R-4	Residence Single and Double	Reynoldsburg
PD	Planned Development	Reynoldsburg
A-1, A-2	Apartment	Whitehall
PAD	Planned Apartment District	Whitehall

Table D-3, *Continued*
GENERALIZED ZONING CLASSIFICATIONS
Port Columbus International Airport

Code	Classification	Jurisdiction
Commercial		
GCD	General Commercial	Bexley
NC	Neighborhood Commercial	Bexley
OC	Office Commercial	Bexley
C-1, C-2, C-3, C-4, C-5	Commercial	Columbus
CPD	Commercial Planned Development District	Columbus
DD	Downtown District	Columbus
CC	Community Commercial	Franklin County
CS	Community Service	Franklin County
NC	Neighborhood Commercial	Franklin County
SCPD	Select Commercial Planned District	Franklin County
SO	Suburban Office and Institutional	Franklin County
CC	Community Commercial	Gahanna
CS	Community Service	Gahanna
OG-3	Downtown General Commercial	Gahanna
OG-4	Downtown Creekside	Gahanna
PCC	Planned Commercial Center	Gahanna
SCPD	Select Commercial Planned District	Gahanna
SO	Suburban Office	Gahanna
CS	Community Service	Jefferson Township
NC	Neighborhood Commercial	Jefferson Township
SO	Suburban Office	Jefferson Township
CC	Community Commerce	Reynoldsburg
CS	Community Service	Reynoldsburg
NC	Neighborhood Commerce	Reynoldsburg
GCD	General Commerce	Whitehall
LCD	Limited Commerce	Whitehall
OD	Office District	Whitehall

Table D-3, *Continued*
GENERALIZED ZONING CLASSIFICATIONS
Port Columbus International Airport

Code	Classification	Jurisdiction
Industrial		
M, M-1, M-2, M-3	Manufacturing	Columbus Gahanna (M-1)
LI	Limited Industrial	Franklin County
PIP	Planned Industrial Park	Franklin County
PID	Planned Industrial District	Gahanna
LI	Limited Industrial	Jefferson Township
PIP	Planned Industrial Park	Jefferson Township
RI	Restricted Industrial	Jefferson Township
GI	General Industry	Reynoldsburg
I-2	Limited Industrial	Whitehall
I-1	Restricted Industrial	Whitehall
Institutional		
I	Institutional District	Columbus
RID	Restricted Institutional District	Gahanna
	Government	Jefferson Township
Recreational		
OS	Open Space District	Bexley
OG-5	Downtown Recreation	Gahanna
Other Classification		
P-1	Private Parking	Columbus
P-2	Public Parking	Columbus
	Exceptional Use	Jefferson Township
S-1	Special	Reynoldsburg
EU	Exceptional Use	Whitehall

1. Low-density residential includes all zoning districts in which the minimum lot size is 20,000 square feet or greater;

2. Medium- to High-Density residential includes all zoning districts in which the minimum lot size is less than 20,000 square feet

D.4 FAA LAND USE PLANNING INITIATIVES

In 1999, the FAA announced a package of land-use planning initiatives designed to reduce problems with aviation noise around airports. Those initiatives are based on responses from local communities, aviation interests, and environmental groups. Of particular concern is the loss of noise reductions through the phase out of Stage 2 aircraft by permitting new noise-sensitive uses in areas where the noise contours are shrinking as a result of the phase out.

The purpose of the initiatives is to enable communities and airports to work together to manage the land use areas to be economically productive and protective of the airport's futures. The five packages include communication improvements for conveying FAA noise policies and noise compatibility information to communities near airports and state aviation organizations.

The FAA also issued a notice of final policy in October 1998 regarding Part 150 approval of noise mitigation measures and the effect on the use of Federal grants for noise mitigation projects. The final policy provides new limitation on the use Airport Improvement Program (AIP) funds for corrective/remedial noise mitigation projects.

Both the land use initiatives and the noise mitigation funding policy are discussed Appendix A, *FAA Policies, Guidance, and Regulations*.

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APPENDIX E
NOISE ABATEMENT ALTERNATIVES

The subsequent pages provide information on the alternative noise abatement measures that were suggested for inclusion in the Port Columbus International Airport (CMH) Noise Compatibility Program (NCP). Each measure was evaluated for the anticipated benefits and drawbacks associated with its implementation. Consultation with the airlines operating at CMH was completed to gather input on the noise abatement alternatives (see attachment at the end of this appendix).

A brainstorming session was held during the second Planning Advisory Committee (PAC) meeting on March 13, 2007 (see Appendix G, *Public Involvement*) to develop an initial set of ideas for the noise abatement alternatives. The following is the list of ideas developed in the meeting:

FLIGHT TRACKS

- Potential divergent turn (15 degrees) on south runway (Runway 28L) could reduce impacts and increase efficiency of airport during peak times
- Divergent turn in excess of 15 degrees over a more compatible corridor
- Is the propeller driven aircraft departure procedure relevant since AirNet moved to Rickenbacker International Airport (LCK)?
- Jet flight tracks turning at night - similar to propeller driven aircraft
- Arrival patterns west of the airport – can the aircraft stay higher before reaching the outer marker

OPERATIONAL CONSIDERATIONS

- Refine the calm wind preference (Runway 10R) to take into account winds at altitude (pilot reports, forecast, +20 knots)
- Greater use of south runway
- Continuous descent approach
- Steeper departure profiles
- Flight management procedures – Orange County

NOISE

- Noise over Whitehall – shaking windows
- Better jet engines (Stage 4)
- Curfews on use of airport
- More efficient noise barrier on north side – upgrade building materials/technology
- Air service is critical and there will be trade-offs for noise

- Using additional noise metrics to help people better understand the impacts and concerns. Supplement the 65 Day-Night Average Sound Level (DNL) to help plan for future land use controls
- More noise monitors
- Phasing out Stage 3 jets
- Restricting Stage 2 business jets
- Businesses are impacted by noise
- Additional landscaping to provide a buffer for the noise
- Construct a highway barrier on I-270
- Improve building construction materials
- Reducing vehicular traffic into airport by adding public transportation to help reduce other noise sources

LAND USE/ZONING

- Change Federal Aviation Administration (FAA) guidelines on land use compatibility to include businesses as noise sensitive
- Lower significant noise impact threshold from 65 DNL to 60 DNL
- Establish a fixed boundary for land use planning versus solely relying on the DNL noise contour which changes over time
- Northeast Area Commission – concerned about normal growth impacts
- Concern about impacts to Churches/Schools/Businesses
- Discussing current restrictions for building
- Increase discussions with economic development jurisdictions
- New development to the west

COMMUNITY OUTREACH

- Inform business/homes of noise in the area
- Additional advertising for public workshops
- Increasing responsibility of the airport to distribute information about development projects
- Improve community outreach – more websites/newsletters
- Better communication of noise sensitive areas with the airlines
  - Better/more signs at end of runway
  - ATIS
- Provide the noise monitoring reports to the PAC

AIRFIELD

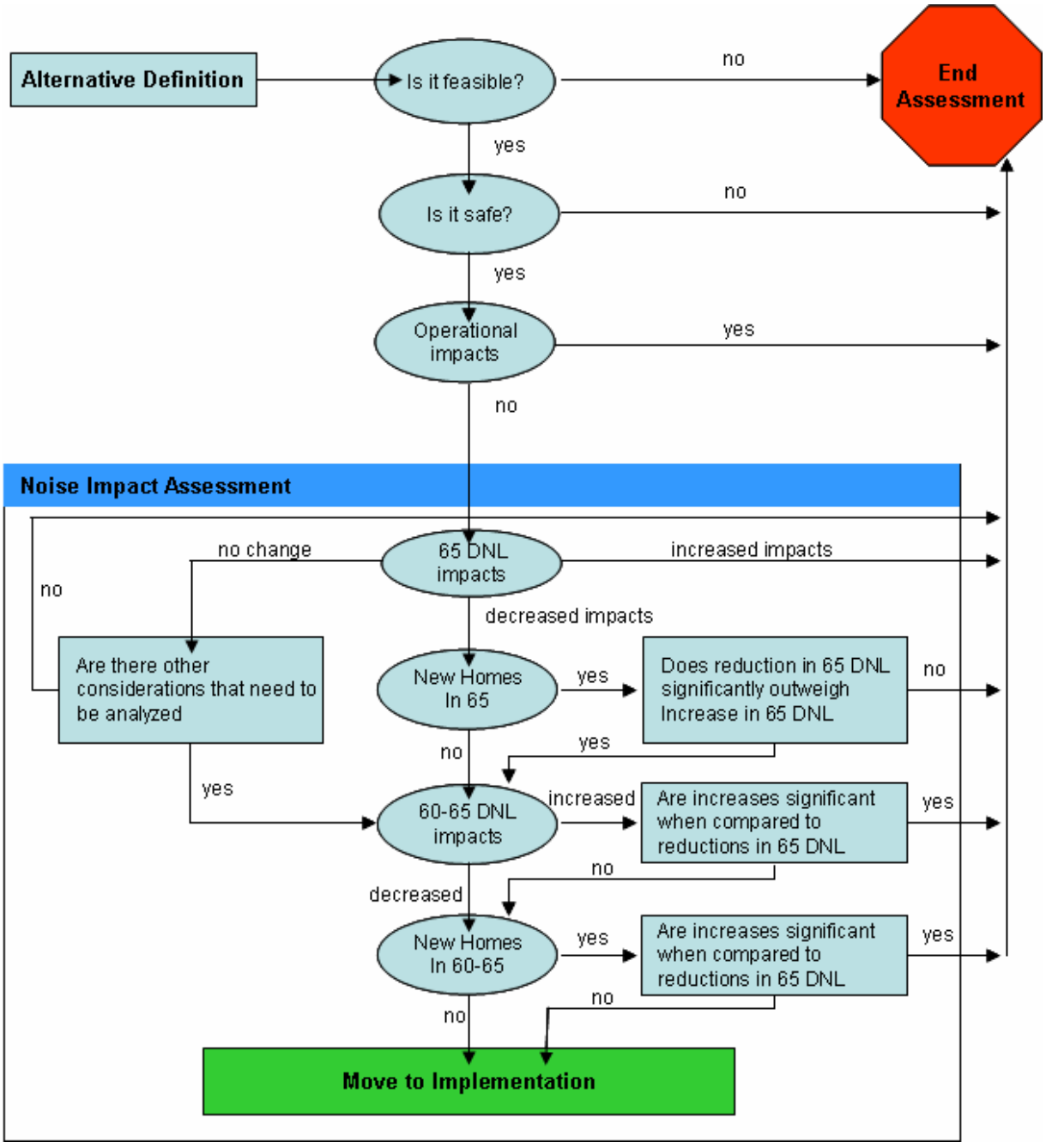
- Look at options to meet other airport meters - hold apron on Runway 10R to help meet flow times

From this list and alternatives developed by the consultant, a short list of alternatives was developed for evaluation. Based upon the comments received from the PAC, the FAA Airport Traffic Control Tower (ATCT), and the consultant's experience with the implementation of like measures at numerous airports throughout the U.S., recommendations to accept or discard each alternative were presented to the PAC prior to the development of the final recommended NCP.

In order to evaluate each alternative, a set of evaluation criteria was established and used to identify the benefits and drawbacks of each alternative. The criteria include feasibility, safety, operational considerations, and noise reduction. After it was determined that an alternative was feasible, safe, and had no major operational drawbacks, a noise impact assessment was prepared to document increases and decreases in various noise levels as compared to the Future (2012) Baseline. Because a decrease in one area may result in an increase in another area, priorities were developed to clarify the evaluation process. The noise impact priorities were as follows:

- Reductions in 65 + DNL (most important)
- Reductions in the 60-65 DNL (very important)
- Sensitivity to shifting noise from one area to another (important)
  - Insuring that the tradeoffs of increased versus decreased noise are understood before making a decision
  - Recognizing that an alternative may have a net reduction in noise impacts, but may be eliminated because those impacts are a result of decreases in one area with a similar level of increases in another

The diagram on below summarizes the noise abatement alternative evaluation process.



The following provides a description of each alternative evaluated, along with an assessment of the benefits, drawbacks, and a recommendation. The first five alternatives presented are the currently approved noise abatement measures from the 1999 Part 150 Update.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-1 (CURRENTLY APPROVED MEASURE)

Description: Amend the Port Columbus International Airport Night Time Aircraft Maintenance Run-up Policy to designate a new run-up location such that NetJets' (formerly known as Executive Jet Aviation) new building will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.

Status: A new engine run-up location was designated southwest of NetJets on the north airfield.

Recommendation: Continue approved measure NA-1.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-2 (CURRENTLY APPROVED MEASURE)

Description: Construct a new run-up barrier at the north airfield, if the NetJets' (formerly known as Executive Jet Aviation) building does not adequately attenuate jet maintenance run-up noise for adjacent residential areas located along I-270.

Status: A new engine run-up location was designated southwest of NetJets on the north airfield and a ground run-up barrier (Barrier C) was constructed.

Recommendation: Continue approved measure NA-2.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-3 (CURRENTLY APPROVED MEASURE)

Description: Increase nighttime use of Runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1 to read as follows:

- Unless wind, weather, runway closure, or loss of navaids dictate otherwise, between the hours of 10:00 p.m. and 8:00 a.m. local time, Runways 28L or 10R are assigned jet aircraft;
- Jet aircraft with Stage 3 engines may use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m., local time; and
- Jet aircraft with Stage 3 engines may use Runway 10L or 28R after 6:00 a.m.

Status: Partially implemented. The Tower Order was updated to identify Runway 10R/28L as the preferred runway between the hours of 10:00 p.m. and 8:00 a.m. local time. Exceptions to allow operations on Runway 10L/28R included jet aircraft with Stage 3 engines after 7:00 a.m. and for pilot requests.

Recommendation: Continue approved measure NA-3.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-4 (CURRENTLY APPROVED MEASURE)

Description: Maximize east flow and amend FAA Tower Order CMH ATCT 7110.1B and the Airport Facilities Directory to reflect implementation of the "East Flow" informal preferential runway use system.

Status: Implemented. However, the use of east flow was less than what was anticipated due to winds, airfield configuration, and airline scheduling.

Recommendation: Continue approved measure NA-4 and implement renewed efforts to maximize the use of east flow as described in Alternative NA-R.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-5 (CURRENTLY APPROVED MEASURE)

Description: Amend FAA Tower Order CMH ATCT 7110.1 and FAA Notice CMH ATCT N7110.22 to read as follows:

During nighttime operations, 10:30 p.m. to 7:00 a.m. local time, the following procedures shall be used for departures off runway 10R:

1. Aircraft normally assigned a runway heading shall be assigned a heading of 100 degrees
2. Propeller driven aircraft, conventional or turboprop, shall be turned no further than 15 degrees left or right (085 to 115). These headings shall not be altered until the aircraft has reached 3,000 Mean Sea Level (MSL) or is three miles from runway end.
3. The aircraft will begin the turn at 2.2 Distance Measuring Equipment (DME) from the Runway 10R Localizer (LOC)/DME.
4. The aircraft must climb to an altitude of 1,215 feet MSL before turning.

Status: Implemented. However, since the relocation of AirNet Systems to Rickenbacker International Airport, this procedure is no longer used.

Recommendation: Because these procedures were designed specifically for the AirNet operation they are no longer relevant or needed. Withdraw approved measure NA-5.

The following table (**Table E-1**) presents the housing, population, and noise-sensitive facility impacts for the Future (2012) Baseline Noise Contour. This is the base in which each of the noise abatement alternatives are compared.

Table E-1
FUTURE (2012) BASELINE HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,526**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,750	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,584**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,792**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-A

TITLE:	Implement a 15-degree divergent turn off of Runway 28L, after crossing the runway end to a 265-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet Mean Sea Level (MSL). A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. Federal Aviation Administration (FAA) ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 15-degree left turn off of Runway 28L. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012).

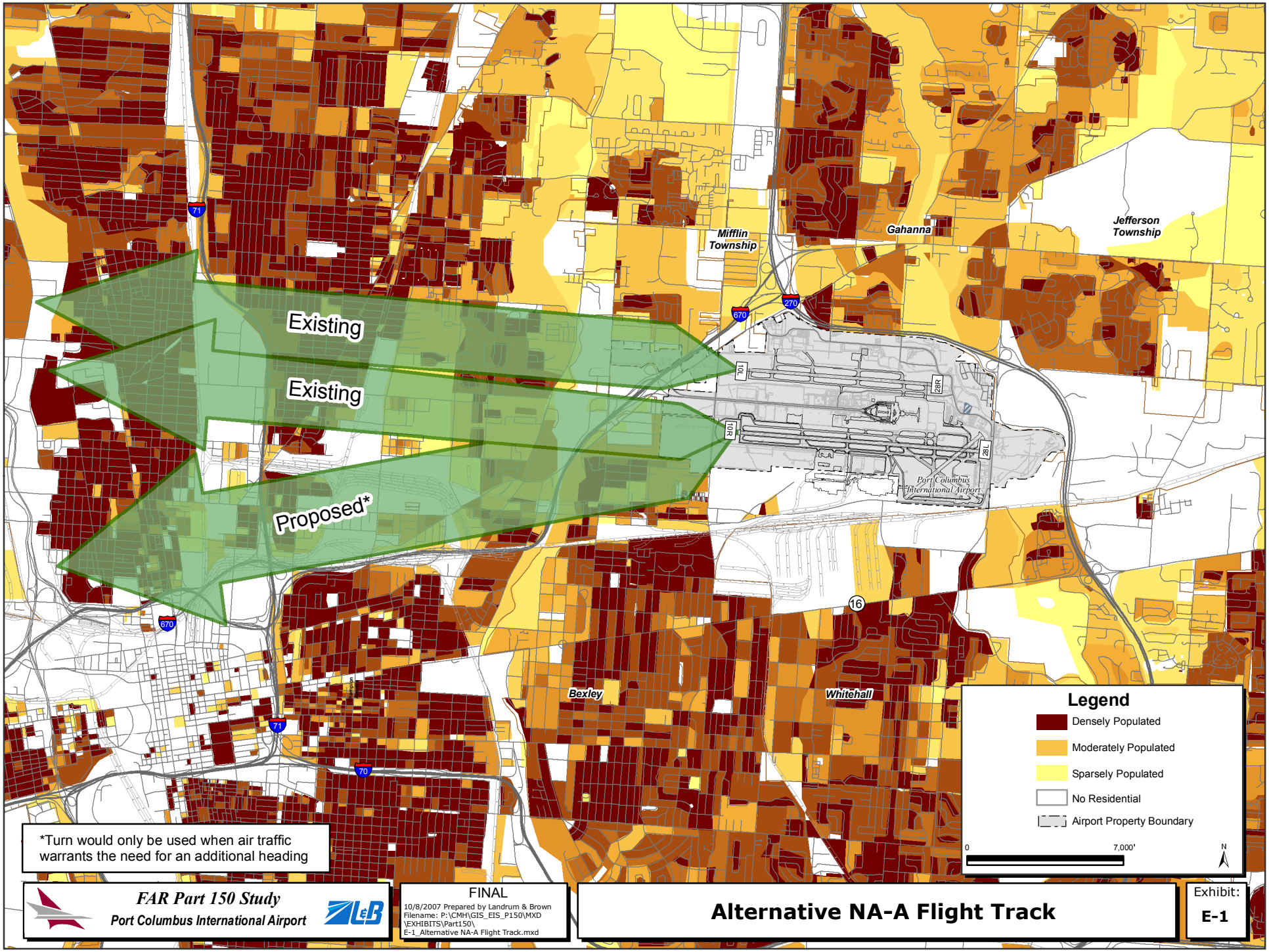
BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading.

DRAWBACKS:	This alternative would increase noise impacts in the 65+ Day-Night Average Sound Level (DNL) by five housing units.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	Integrated Noise Model (INM) modeling

FINDINGS AND RECOMMENDATIONS:	Due to the increase in the noise impacts in the 65+ DNL the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-2**).


Existing
Existing
Proposed*
Mifflin Township
Gahanna
Jefferson Township
Bexley
Whitehall
Port Columbus International Airport
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used when air traffic warrants the need for an additional heading
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Port Columbus International Airport
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Alternative NA-A Flight Track
Exhibit:
E-1

Table E-2
ALTERNATIVE NA-A HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,486**	**647**	**0**	**0**	**647**
Mitigated					
Sound Insulated	372	286	0	0	286
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	84	77	0	0	77
Not Previously Mitigated	4,692	284	0	0	284
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,544**	**705**	**0**	**0**	**705**
Population					
Total Population[@]	**13,694**	**1,741**	**0**	**0**	**1,741**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.

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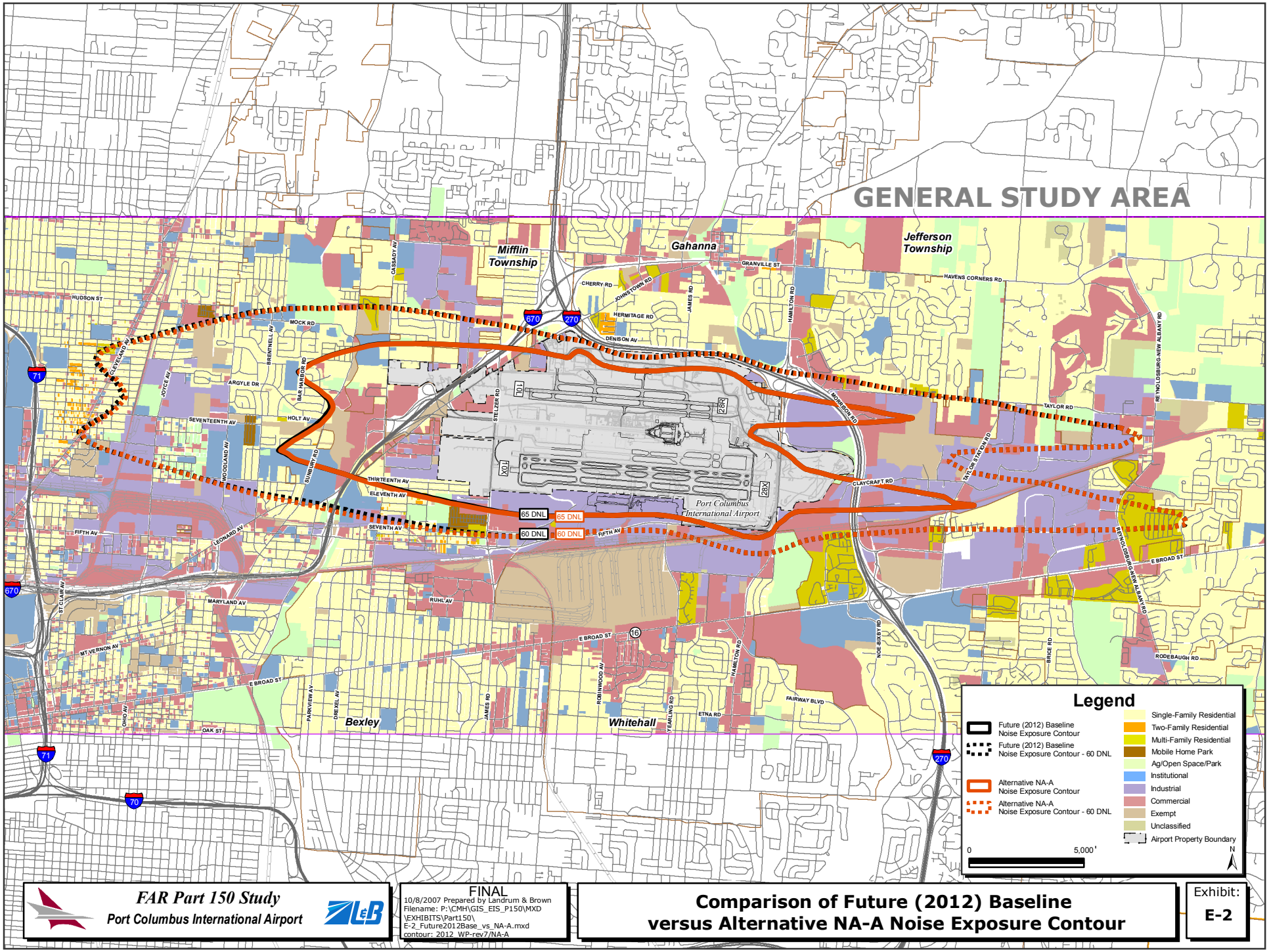

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contour: 2012_WP-rev7/NA-A

Comparison of Future (2012) Baseline versus Alternative NA-A Noise Exposure Contour

Exhibit: **E-2**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-B

TITLE:	Implement a 20-degree divergent turn off of Runway 28L, after crossing the runway end to a 260-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 20-degree left turn off of Runway 28L. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately ten percent of the time based on projected demand for 2012).

BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading. Overall impacts in the 60-65 DNL would be decreased by 31 housing units.

DRAWBACKS:	This alternative would increase noise impacts in the 65+ DNL by five housing units. The reduction in impacts in the 60-65 DNL results from shifting impacts (increase of 124 and decrease of 155 housing units) from one area to another.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the increase in the noise impacts in the 65+ DNL the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-3**).

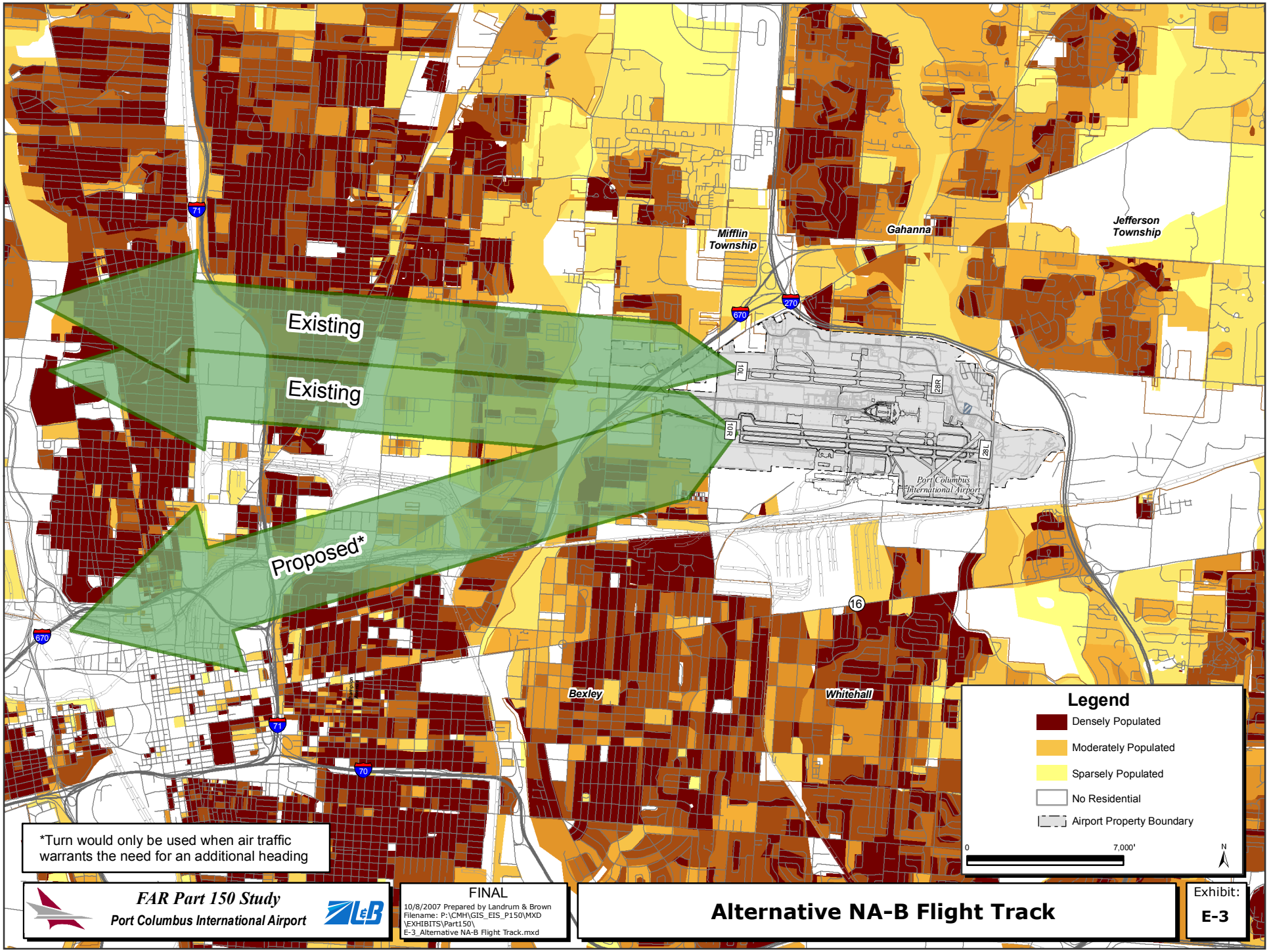
Table E-3
ALTERNATIVE NA-B HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,495**	**647**	**0**	**0**	**647**
Mitigated					
Sound Insulated	372	286	0	0	286
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	84	77	0	0	77
Not Previously Mitigated	4,701	284	0	0	284
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,553**	**705**	**0**	**0**	**705**
Population					
Total Population[@]	**13,716**	**1,741**	**0**	**0**	**1,741**
Noise-Sensitive Facilities					
Churches	37	1	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.


Existing
Existing
Proposed*
Mifflin Township
Gahanna
Jefferson Township
Bexley
Whitehall
Port Columbus International Airport
71
670
270
16
70
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used when air traffic warrants the need for an additional heading
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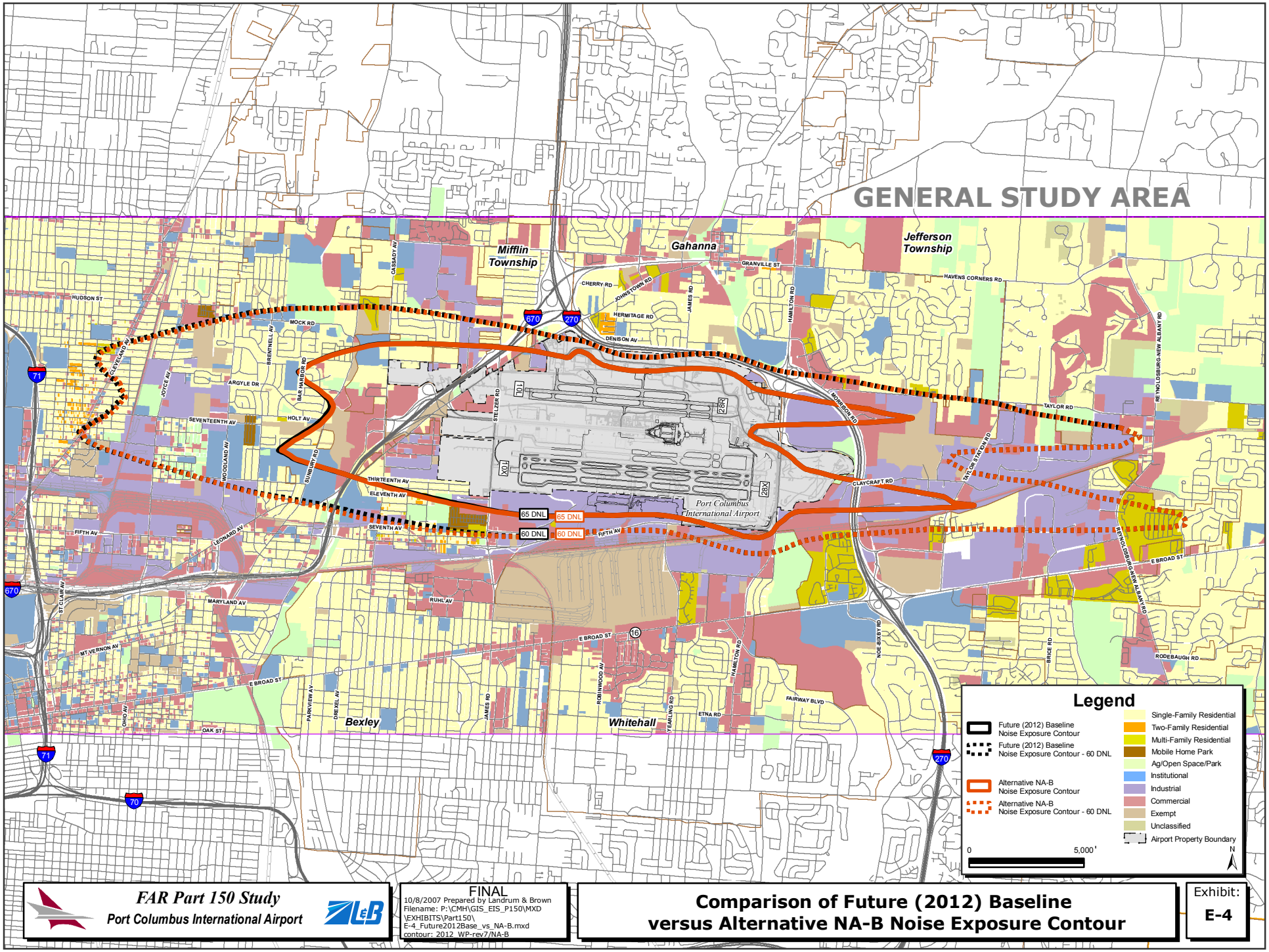
Alternative NA-B Flight Track
Exhibit:
E-3



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contour: 2012_WP-rev7/NA-B

Comparison of Future (2012) Baseline versus Alternative NA-B Noise Exposure Contour

Exhibit: **E-4**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-C

TITLE:	All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. This procedure would route aircraft over the I-670 and I-70 corridors to take advantage of a more compatible corridor. This procedure would be applied to departures that had a southerly destination so that extra distance/time was not being added to flights.

BENEFITS:	This procedure would reduce noise for those areas located along the Runway 28L centerline. This alternative would decrease noise impacts in the 65+ DNL by six housing units. This alternative would decrease noise impacts in the 60-65 DNL by 552 housing units.

DRAWBACKS:	The reduction in impacts in the 65+ DNL results from shifting impacts (increase of 111 and decrease of 117 housing units) from one area to another. Similarly, the reduction in impacts in the 60-65 DNL result from shifting impacts (increase of 460 and decrease of 1,012 housing units).

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	The alternative reduces overall noise impacts within the 65+ DNL and within the 60-65 DNL. However, because those reductions are a result of shifting noise without significant benefits (six home net reduction in the 65+ DNL), this alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-4**).

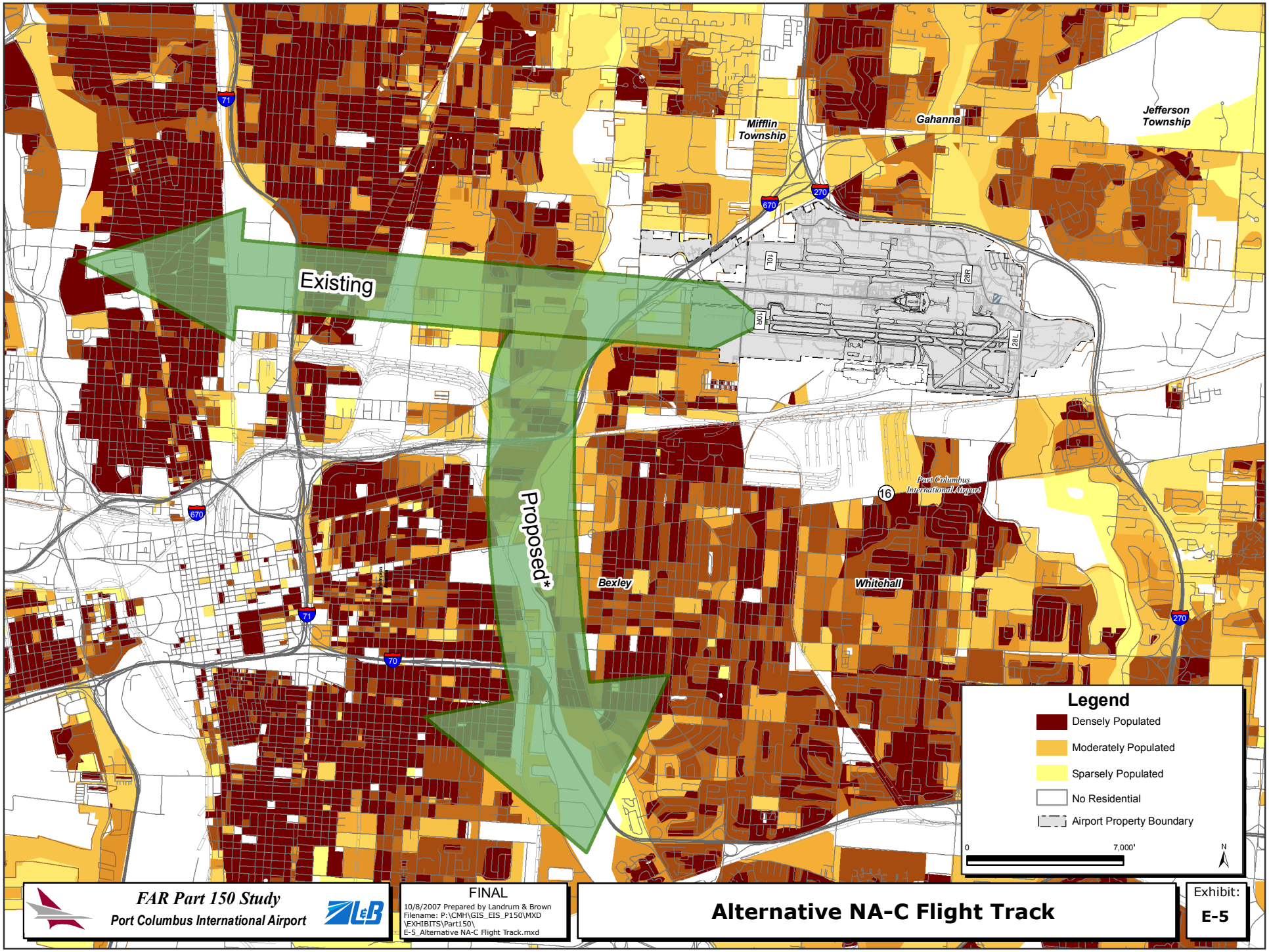
Table E-4
ALTERNATIVE NA-C HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**4,971**	**639**	**0**	**0**	**639**
Mitigated					
Sound Insulated	437	221	0	0	221
Easement	335	1	0	0	1
Unmitigated					
Eligible for Sound Insulation but not Insulated	99	62	0	0	62
Not Previously Mitigated	4,100	355	0	0	355
Mifflin Township	**15**	**55**	**0**	**0**	**55**
Mitigated					
Sound Insulated	3	33	0	0	33
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,032**	**694**	**0**	**0**	**694**
Population					
Total Population@	**12,429**	**1,714**	**0**	**0**	**1,714**
Noise-Sensitive Facilities					
Churches	30	1	0	0	0
Schools	10	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



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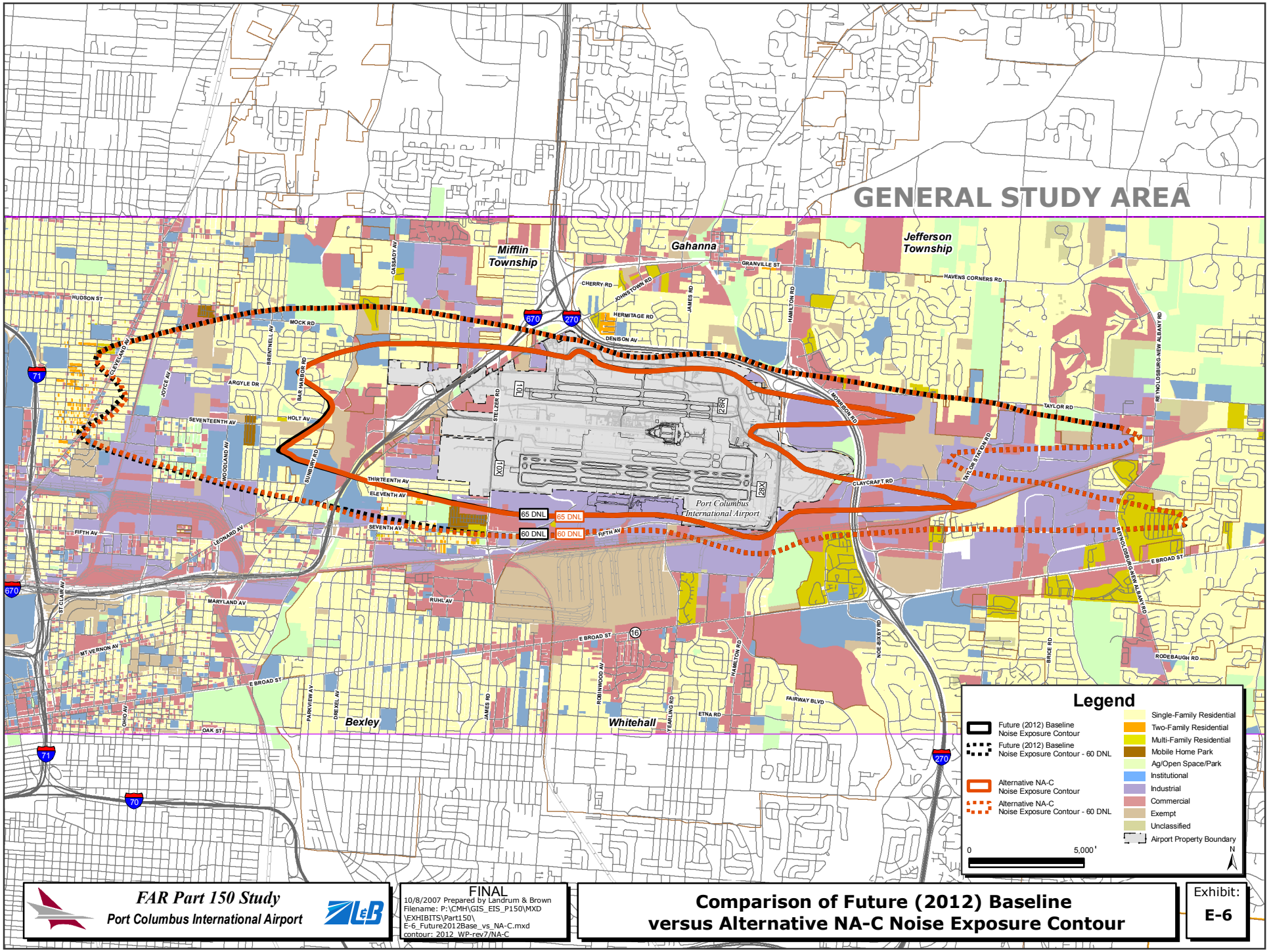
Alternative NA-C Flight Track

Exhibit: E-5



FAR Part 150 Study
Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
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contour: 2012_WP-rev7/NA-C

Comparison of Future (2012) Baseline versus Alternative NA-C Noise Exposure Contour

Exhibit: **E-6**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-D

TITLE:	When wind, weather, and operational conditions allow, nighttime (10:00 p.m. to 7:00 a.m.) arrivals use visual side step approach to Runway 28L.

BACKGROUND AND INTENT:	Current nighttime procedures recommend the use of Runway 10R/28L with the exception of pilot requests and during the morning hours. Standard approach procedures (straight-in from the outer marker) are used for nighttime jet arrivals. This alternative would modify the current nighttime procedures by implementing a side-step approach to Runway 28L. This would be implemented as a visual approach only during conditions where pilots could see both runways from three miles or more. The intent of this procedure is to direct aircraft over more compatible land uses during the nighttime. Review of the land uses east of the airport finds that the area aligned with the north runway is generally more compatible than the area aligned with the south runway. The CRAA requested comments from the airlines operating at CMH regarding the proposed noise abatement alternatives. A number of the airlines expressed safety concerns about this alternative.

BENEFITS:	This alternative would decrease impacts within the 60-65 DNL by 307 housing units. When implemented with the other recommended alternative, significant reductions in the 65+ DNL occur.

DRAWBACKS:	This alternative would require additional coordination or communication for the ATCT and pilots. There would be no reduction in impacts in the 65+ DNL. Small shift in impacts within the 60-65 DNL would occur (increase of 35 and decrease of 342 housing units). Airline concern regarding the safety of the procedure.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures, and changing approach plates at radar positions would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the safety concerns expressed by the airlines, the alternative is **NOT RECOMMENDED** for further evaluation (see the attachment at the end of this appendix).

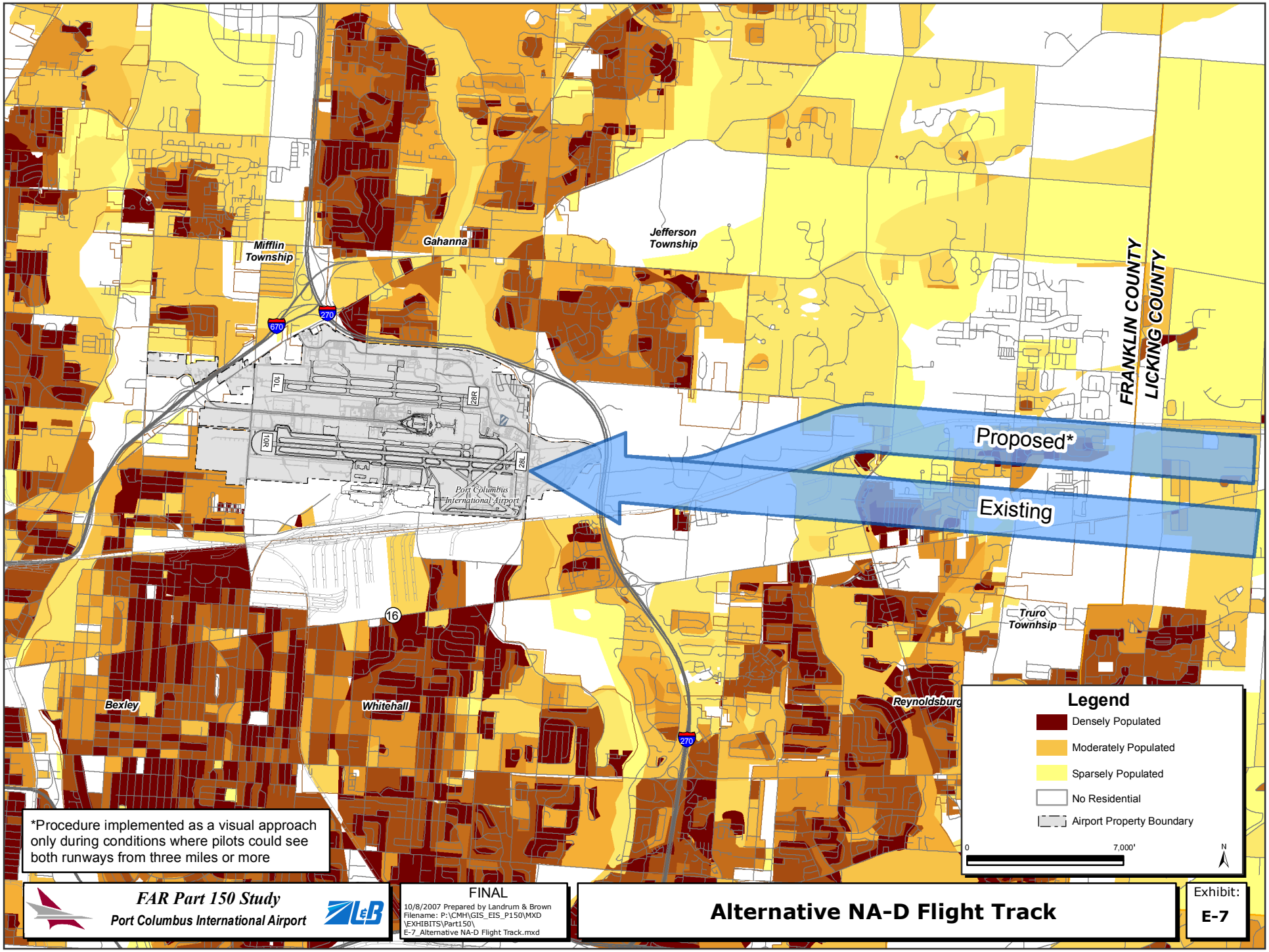
Table E-5
ALTERNATIVE NA-D HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,185**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	78	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,669	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**32**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**48**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	18	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	30	0	0	0	0
Total Housing Units	**5,277**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,034**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



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Port Columbus International Airport

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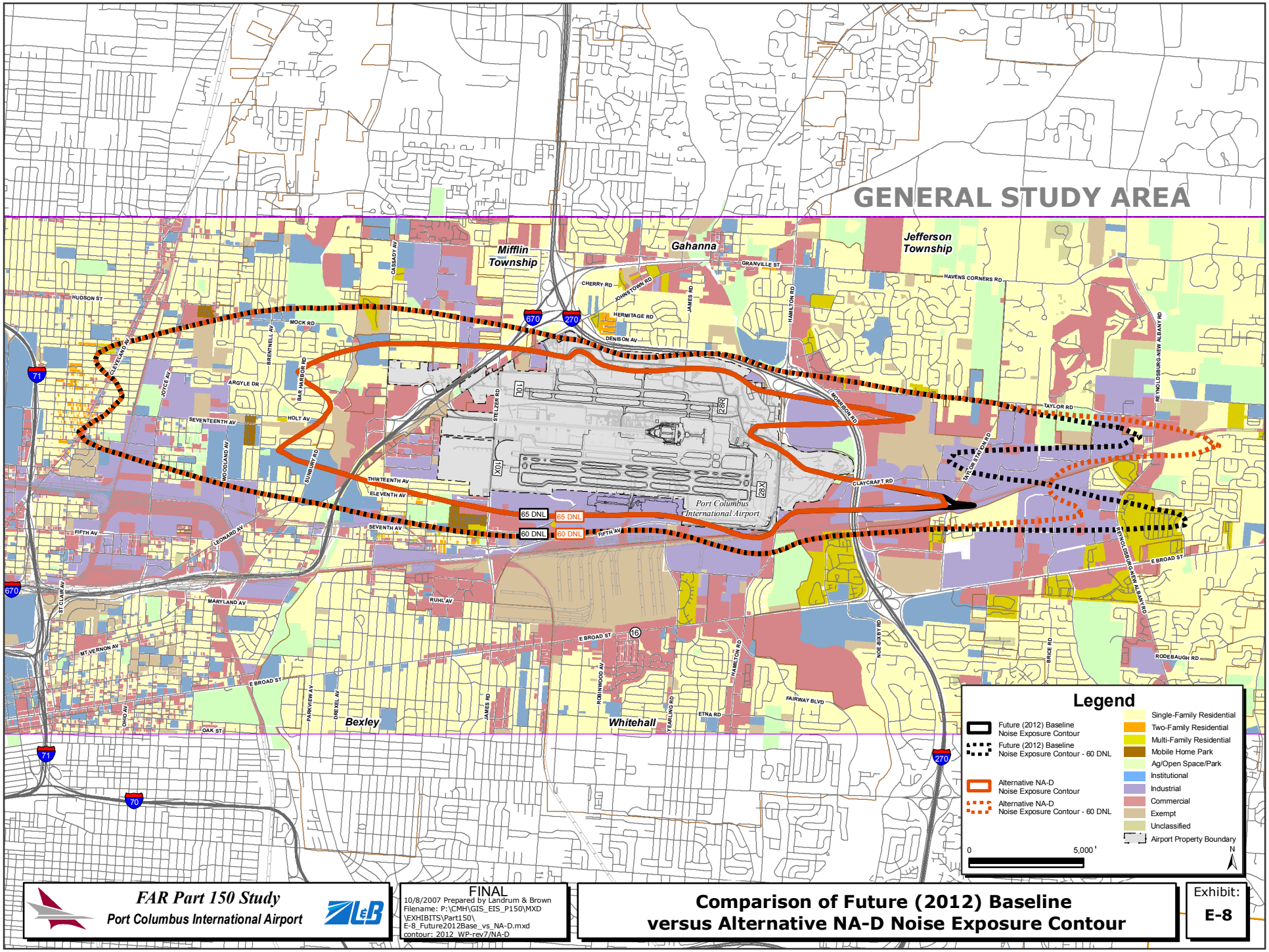
Alternative NA-D Flight Track

Exhibit: E-7



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contour: 2012_WP-rev7/NA-D

Comparison of Future (2012) Baseline versus Alternative NA-D Noise Exposure Contour

Exhibit: **E-8**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-E

TITLE:	Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 15-degree left turn off of Runway 28R. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012). Because this is a new flight track and the amount of use it would receive is unknown at this point, the recommendation is contingent upon conducting a test period by the Air Traffic Control Tower. During the test period, data will be collected by the ATCT and CRAA to monitor when the turn was used, why the turn was needed, and the airline that used the turn. After the test period, the data will be analyzed to determine if the turn significantly increases the noise impacts and complaints in the surrounding communities. If it is found that noise impacts and complaints increase, the test will be discontinued and the alternative will not be implemented.

BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading. Overall impacts in the 65+ DNL would be decreased by 23 housing units and overall impacts in the 60-65 DNL would be decreased by 41 housing units.

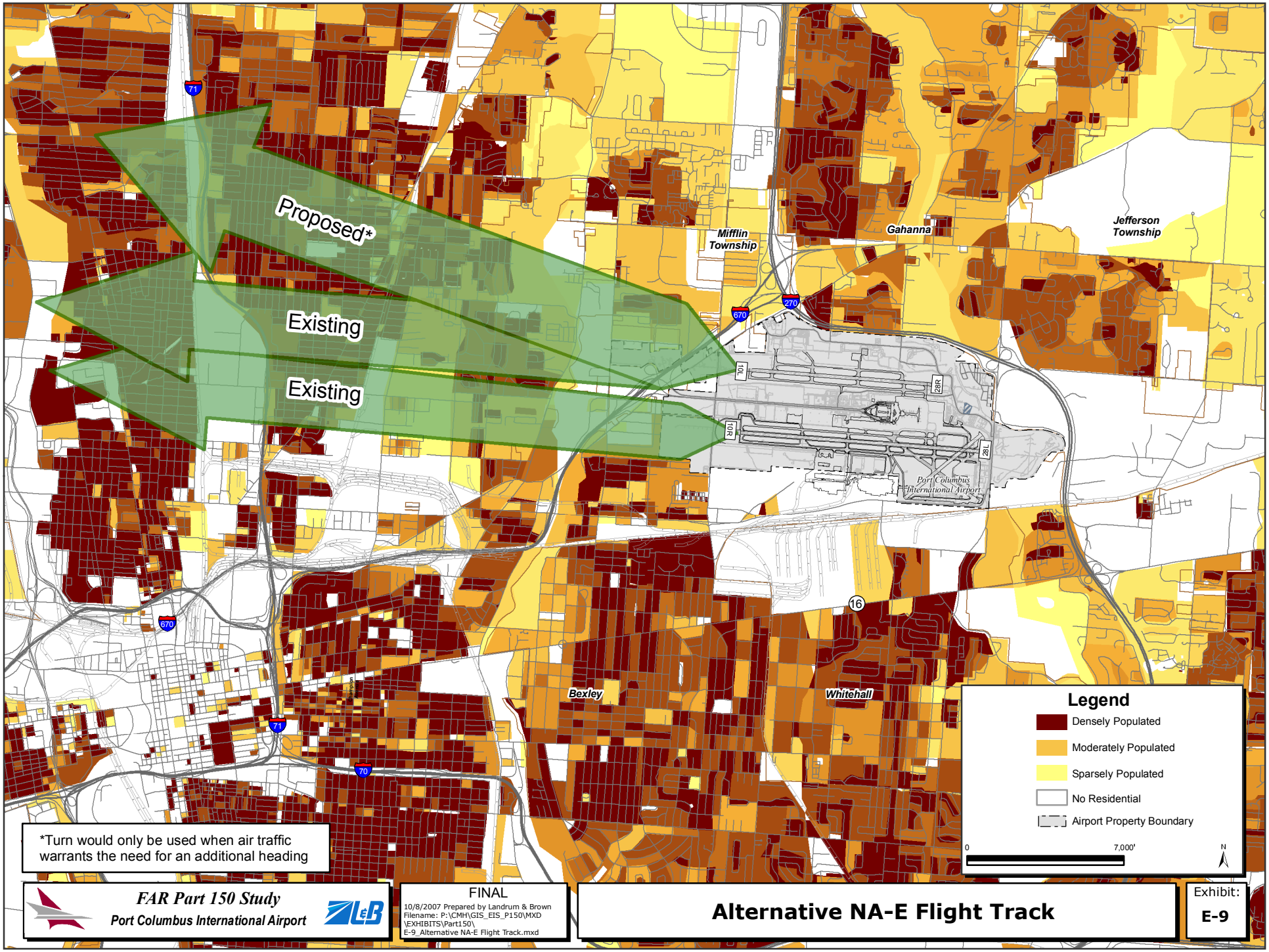
DRAWBACKS:	The reduction in impacts in the 60-65 DNL results from shifting impacts (increase of 96 and decrease of 137 housing units) from one area to another.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA. The cost of testing and monitoring the procedure would be the responsibility of the CRAA.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-E *Continued*

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the decrease of noise impacts within the 65+ DNL with little shifting of noise impacts, the alternative is **RECOMMENDED** for further evaluation (see **Table E-6**).



*Turn would only be used when air traffic warrants the need for an additional heading

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Alternative NA-E Flight Track

Exhibit: **E-9**

Table E-6
ALTERNATIVE NA-E HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,484**	**619**	**0**	**0**	**619**
Mitigated					
Sound Insulated	378	280	0	0	280
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	84	77	0	0	77
Not Previously Mitigated	4,684	262	0	0	262
Mifflin Township	**13**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	12	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,543**	**677**	**0**	**0**	**677**
Population					
Total Population[@]	**13,691**	**1,672**	**0**	**0**	**1,672**
Noise-Sensitive Facilities					
Churches	39	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.

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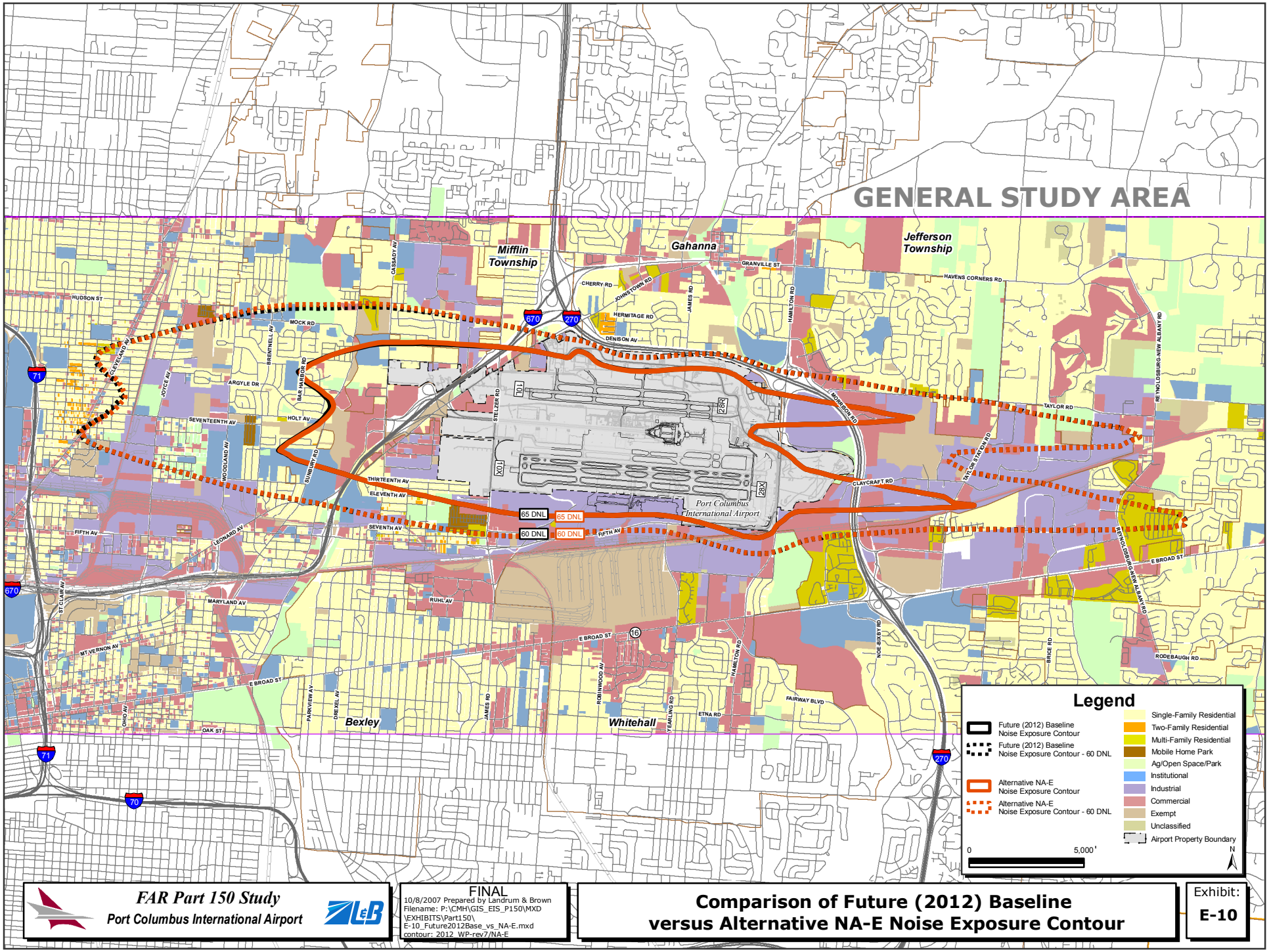

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contour: 2012_WP-rev7/NA-E

Comparison of Future (2012) Baseline versus Alternative NA-E Noise Exposure Contour

Exhibit: **E-10**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-F

TITLE:	All northbound traffic departing Runway 28R turn right to a 360 heading.
BACKGROUND AND INTENT:	Current procedures instruct aircraft to fly runway heading until reaching five miles or 3,500 feet AGL. This procedure would direct aircraft over a more compatible corridor that exists along Cassady Avenue, northwest of the airport.
BENEFITS:	This procedure would reduce noise for those areas located along the Runway 28R centerline. Overall impacts in the 65+ DNL would be decreased by 127 housing units.
DRAWBACKS:	The alternative is not feasible without impacting approaches to the Ohio State University Airport.[1]
COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.
EVALUATION METHOD:	INM modeling
FINDINGS AND RECOMMENDATIONS:	Due to the conflicts with the Ohio State University Airport, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-7**).

[1] ATCT Meeting, February 26, 2007, See Appendix G.

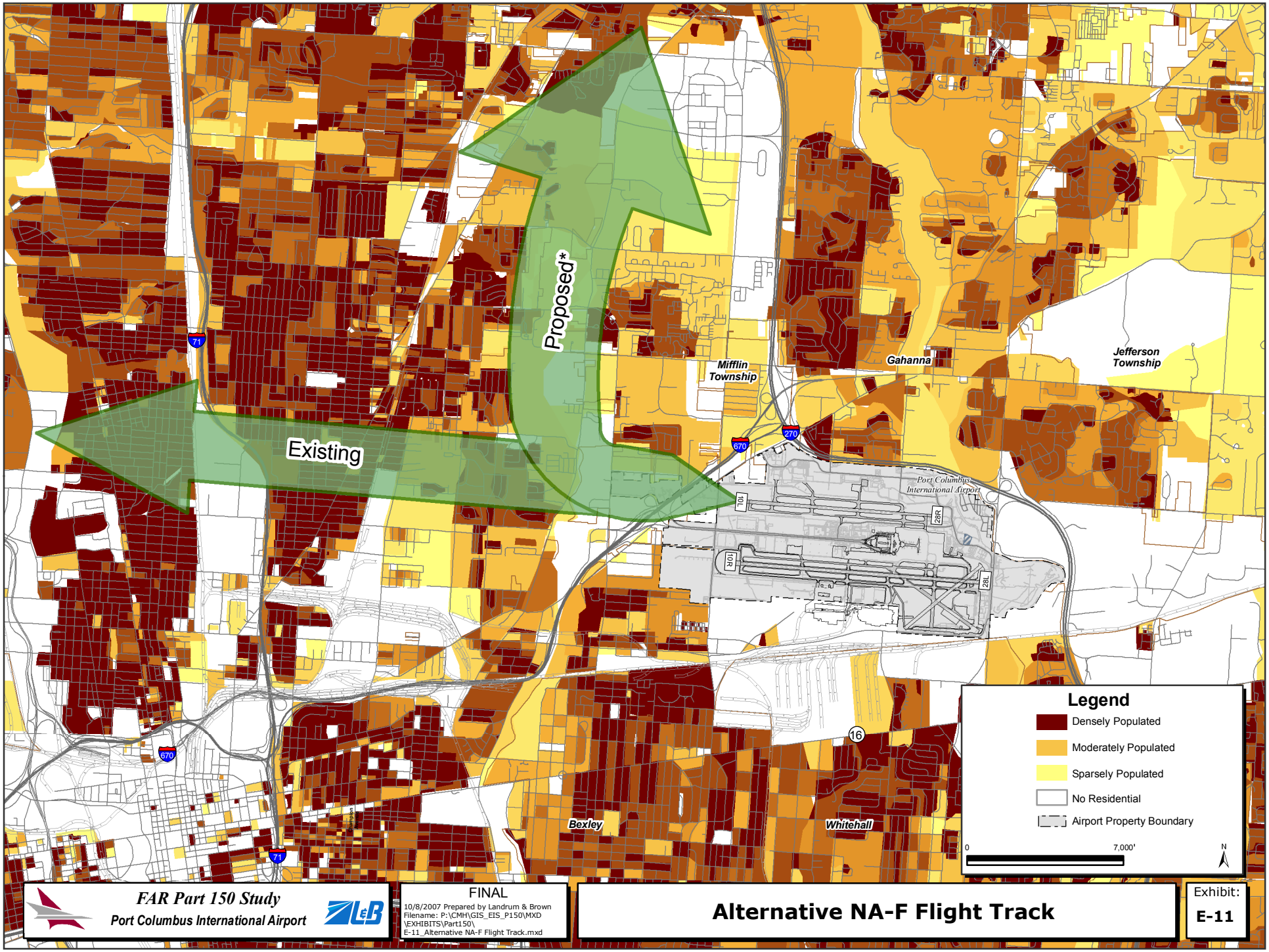
Table E-7
ALTERNATIVE NA-F HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,200**	**515**	**0**	**0**	**515**
Mitigated					
Sound Insulated	429	229	0	0	229
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	90	71	0	0	71
Not Previously Mitigated	4,343	215	0	0	215
Mifflin Township	**13**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	12	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,259**	**573**	**0**	**0**	**573**
Population					
Total Population@	**12,990**	**1,415**	**0**	**0**	**1,415**
Noise-Sensitive Facilities					
Churches	32	0	0	0	0
Schools	7	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



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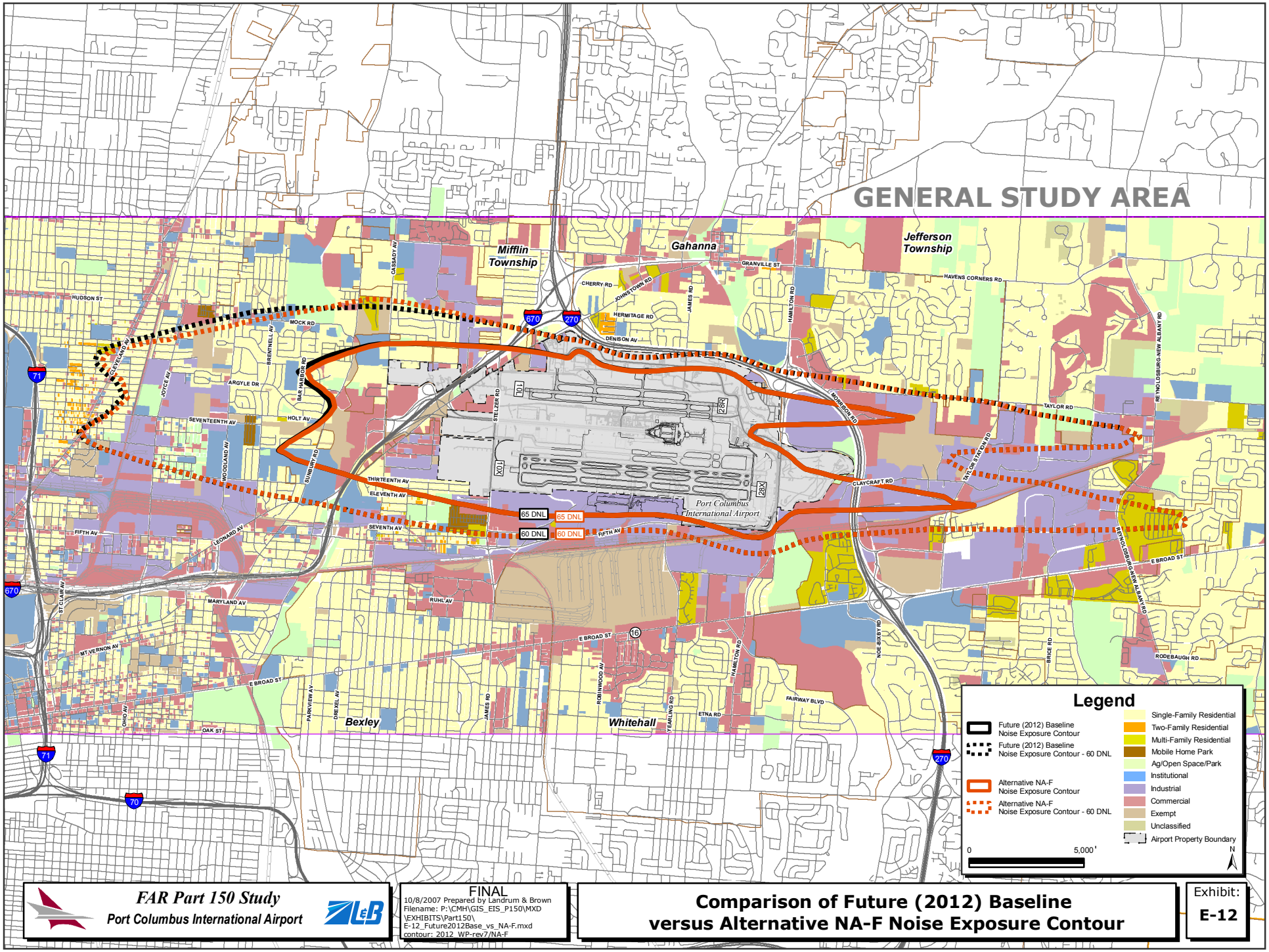
Alternative NA-F Flight Track

Exhibit: E-11



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contour: 2012 WP-rev7/NA-F

Comparison of Future (2012) Baseline versus Alternative NA-F Noise Exposure Contour

Exhibit: **E-12**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-G

TITLE:	Implement a 15-degree divergent turn off of Runway 10R, after crossing the runway end to a 115-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 15-degree right turn off of Runway 10R. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012).

BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading.

DRAWBACKS:	The alternative would not change the noise impacts in the 65+ DNL and would increase noise impacts in the 60-65 DNL by four housing units. The increase in impacts in the 60-65 DNL results from shifting impacts (increase of 11 and decrease of 7 housing units) from one area to another.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the no change in impacts in the 65+ DNL and the increase/shift of noise in the 60-65 DNL, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-8**).

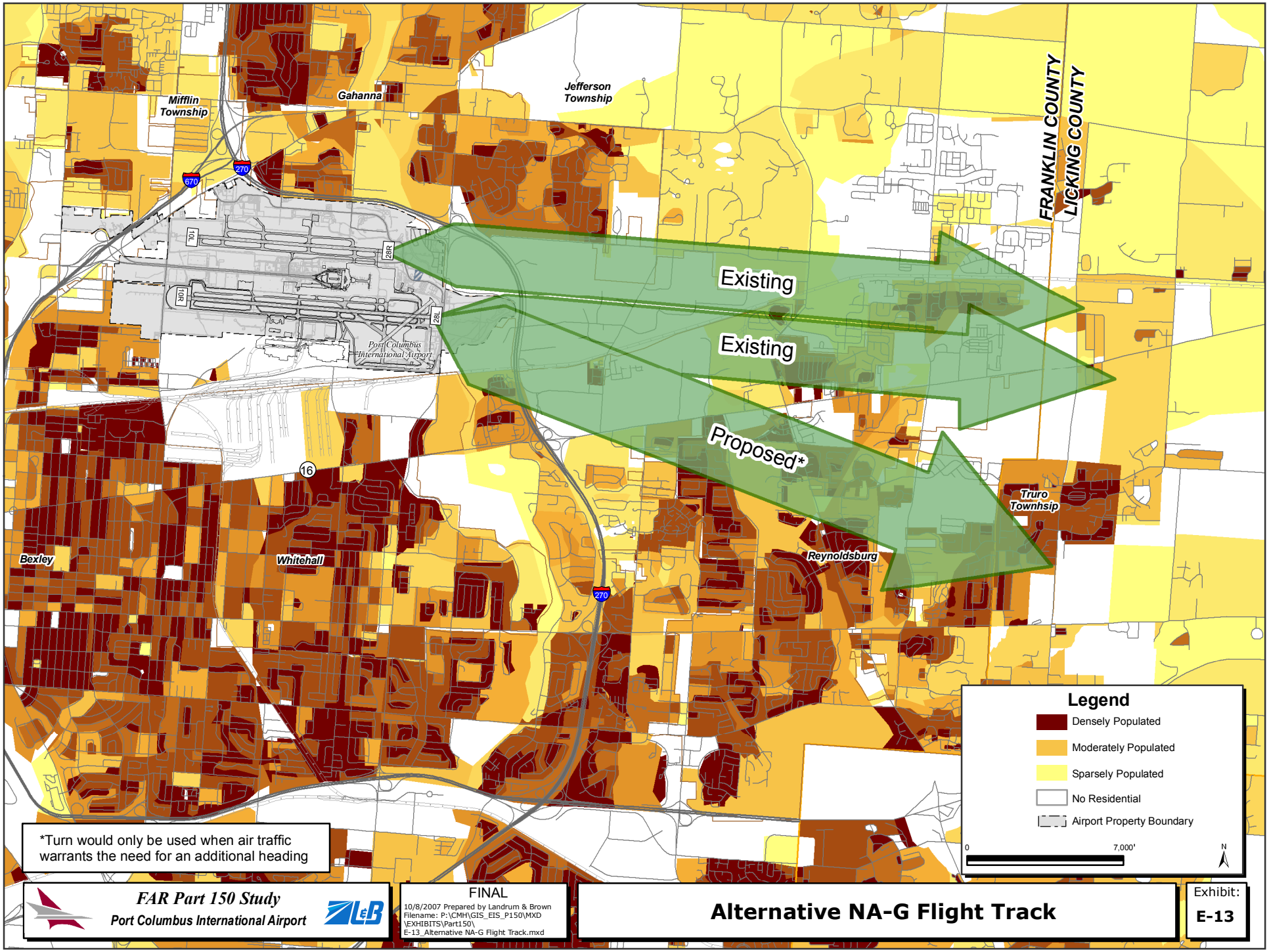
Table E-8
ALTERNATIVE NA-G HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,530**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	342	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,750	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,588**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,802**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.


Mifflin Township
Gahanna
Jefferson Township
FRANKLIN COUNTY
LICKING COUNTY
Existing
Existing
Proposed*
Port Columbus International Airport
Truro Townhsip
Reynoldsburg
Whitehall
Bexley
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used when air traffic warrants the need for an additional heading
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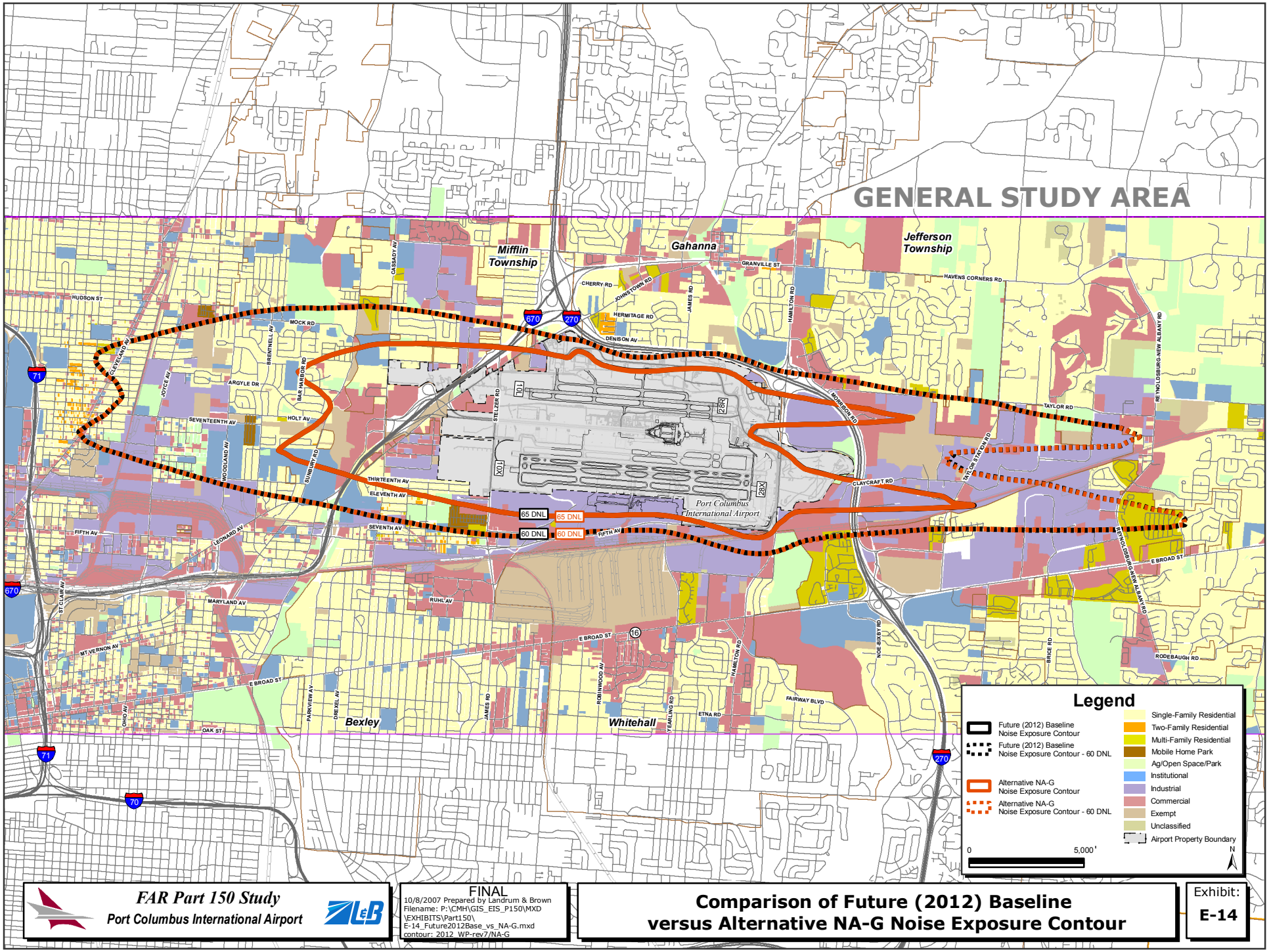
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-13_Alternative NA-G Flight Track.mxd
Alternative NA-G Flight Track
Exhibit:
E-13



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contour: 2012_WP-rev7/NA-G

Comparison of Future (2012) Baseline versus Alternative NA-G Noise Exposure Contour

Exhibit: **E-14**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-H

TITLE:	Implement a 40-degree divergent turn off of Runway 10R, after crossing the runway end to a 140-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 40-degree right turn off of Runway 10R. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012).

BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading.

DRAWBACKS:	The alternative would cause airspace conflicts with Rickenbacker International Airport (LCK)[2]. The alternative would not change the noise impacts in the 65+ DNL.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the conflicts with Rickenbacker International Airport, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-9**).

[2] ATCT Meeting, February 26, 2007, See Appendix G

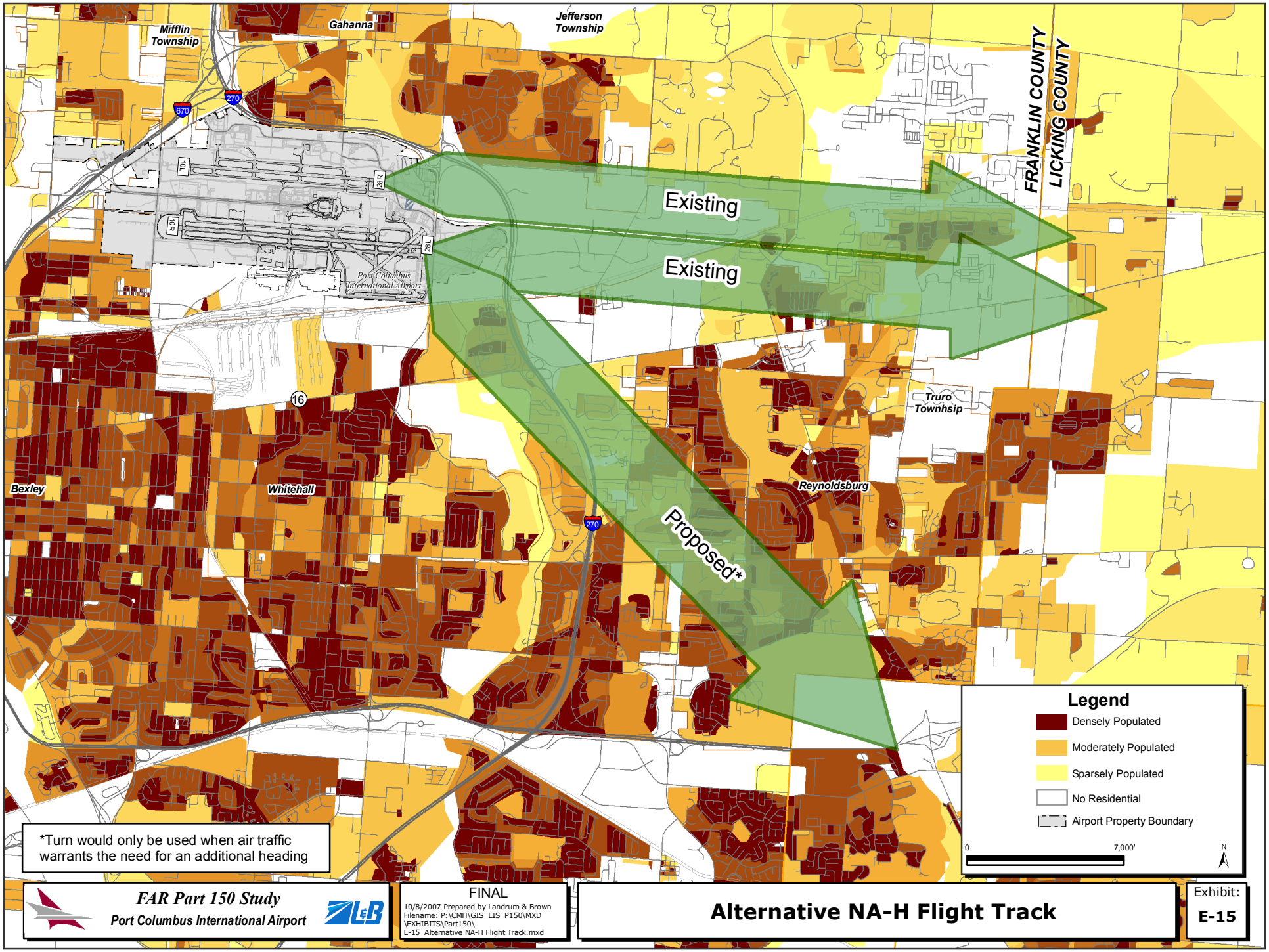
Table E-9
ALTERNATIVE NA-H HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,523**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	340	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,745	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,581**	**700**	**0**	**0**	**700**
Population					
Total Population@	**13,785**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



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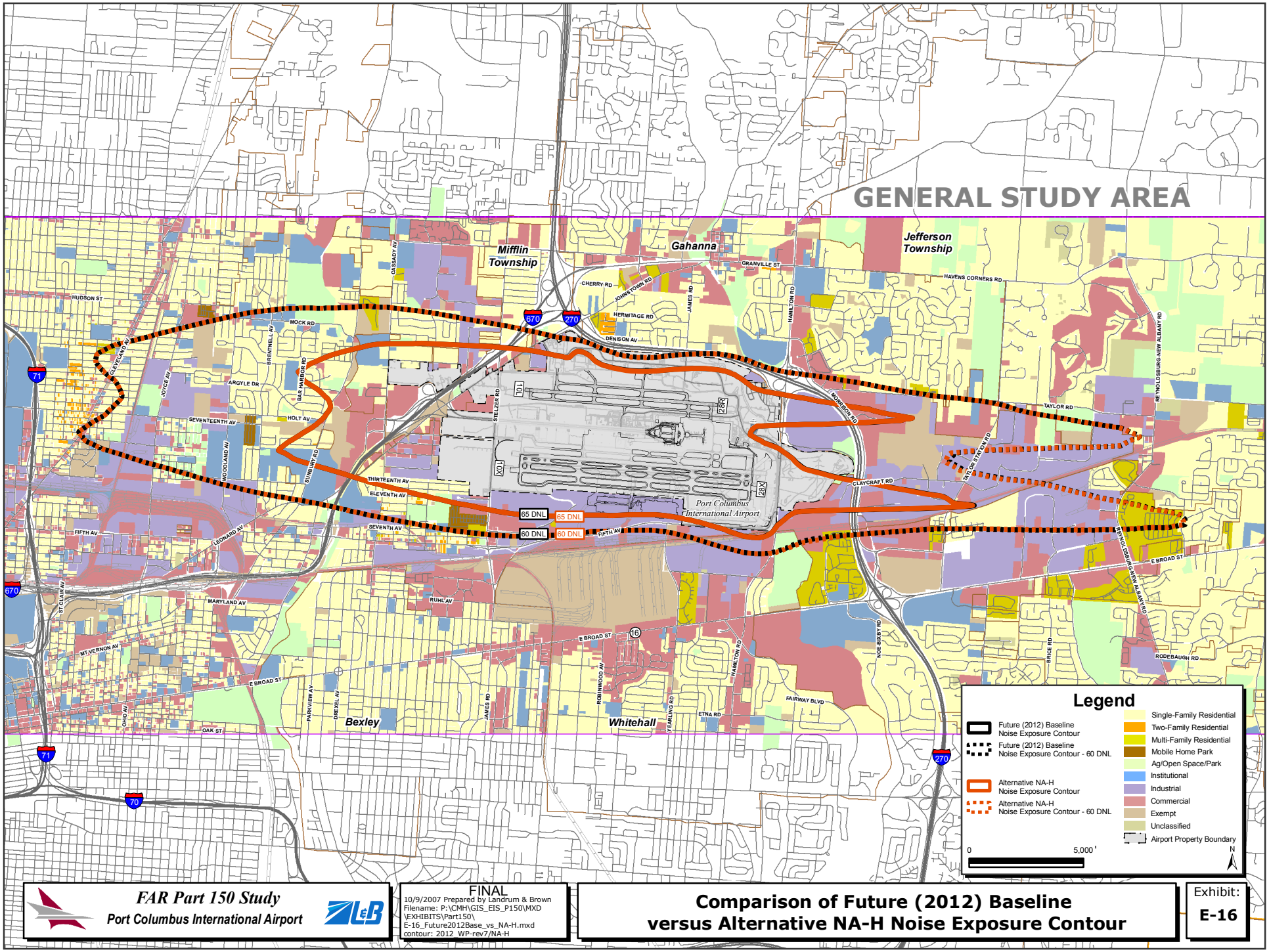
Alternative NA-H Flight Track

Exhibit: E-15



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contour: 2012_WP-rev7/NA-H

Comparison of Future (2012) Baseline versus Alternative NA-H Noise Exposure Contour

Exhibit: **E-16**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-I

TITLE:	Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R immediately turn left 10 degrees before turning on course.

BACKGROUND AND INTENT:	Current procedures instruct aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. Noise is generally more disruptive during the nighttime. The intent of this procedure is to direct aircraft over more compatible land uses during the nighttime.

BENEFITS:	This procedure decreases the noise over populated areas along the runway centerline during the nighttime hours. Overall impacts in the 60-65 DNL would be decreased by 105 housing units. The reduction in impacts in the 60-65 DNL results from a small shifting impacts (increase of 10 and decrease of 115 housing units) from one area to another.

DRAWBACKS:	The alternative would not change the noise impacts in the 65+ DNL. If the procedure is not flown as intended, there is the potential for aircraft to overfly populated areas during the nighttime.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to no change in the number of impacts in the 65+ DNL and the potential the aircraft may unintentionally overfly populated areas during the nighttime, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-10**).

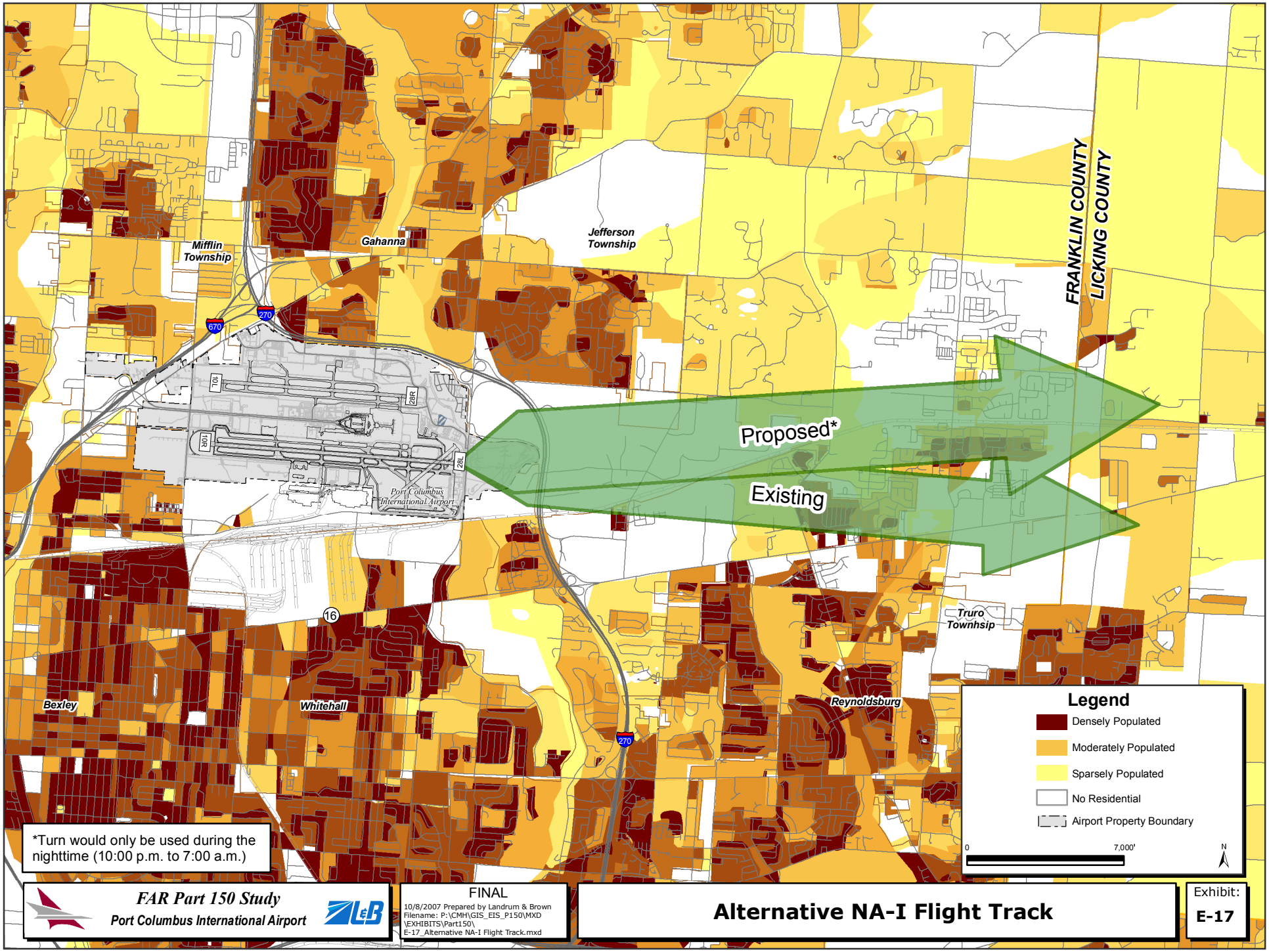
Table E-10
ALTERNATIVE NA-I HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,412**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	269	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,705	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**37**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	34	0	0	0	0
Jefferson Township	**18**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	18	0	0	0	0
Total Housing Units	**5,479**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,533**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.


Mifflin Township
Gahanna
Jefferson Township
FRANKLIN COUNTY
LICKING COUNTY
Proposed*
Existing
Port Columbus International Airport
Truro Townhsip
Bexley
Whitehall
Reynoldsburg
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used during the nighttime (10:00 p.m. to 7:00 a.m.)
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Port Columbus International Airport
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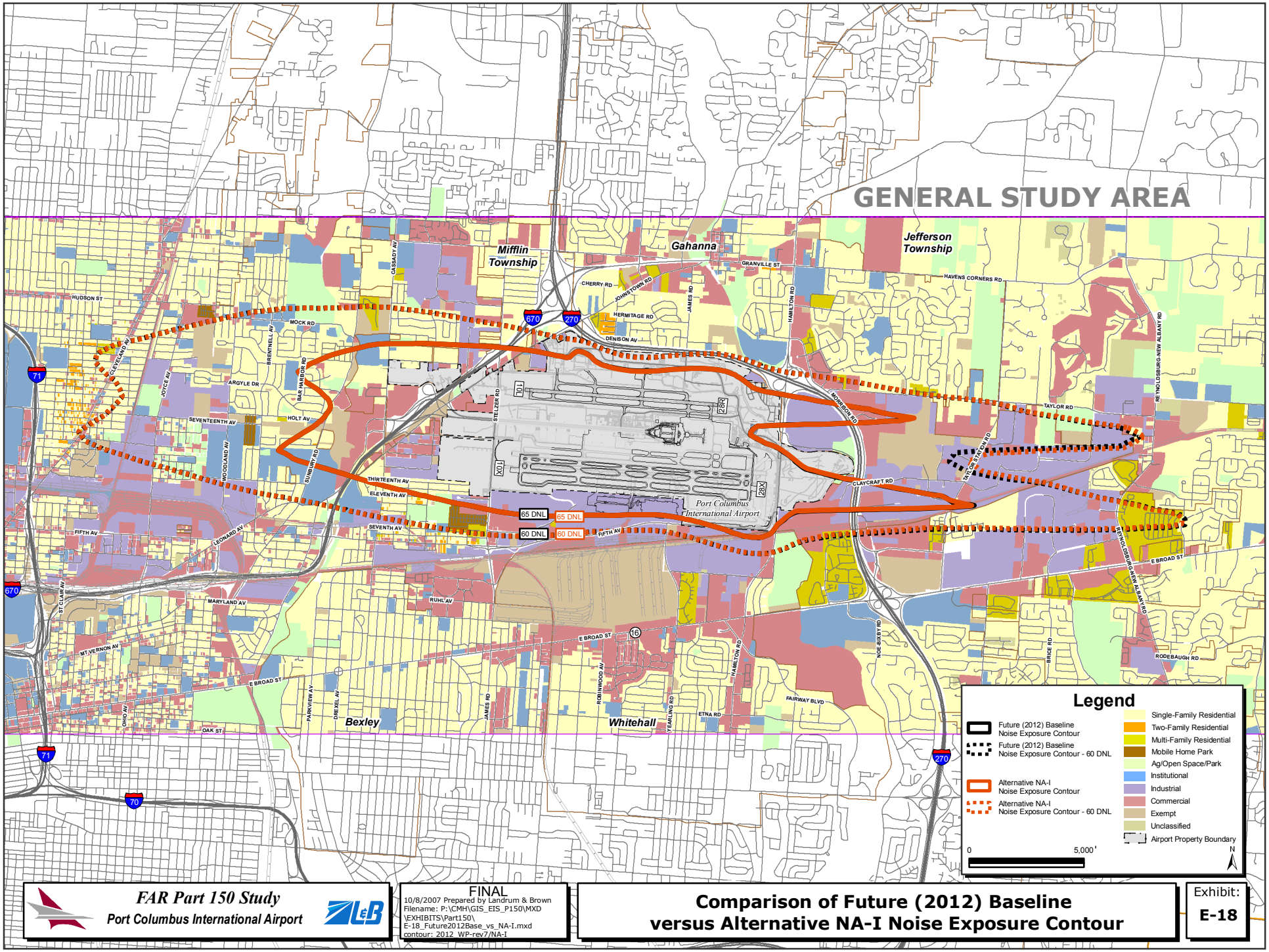
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-17_Alternative NA-I Flight Track.mxd
Alternative NA-I Flight Track
Exhibit:
E-17



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Port Columbus International Airport

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contour: 2012_WP-rev7/NA-I

Comparison of Future (2012) Baseline versus Alternative NA-I Noise Exposure Contour

Exhibit: **E-18**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-J

TITLE:	All southbound traffic departing Runway 10R turn right and follow the Interstate 270 corridor.

BACKGROUND AND INTENT:	Current procedures instruct aircraft to fly runway heading until reaching five miles or 3,500 feet AGL. This procedure would take advantage of a more compatible corridor southeast of the airport along I-270.

BENEFITS:	This procedure would reduce noise for those areas located along the Runway 10R centerline. This alternative would decrease noise impacts in the 60-65 DNL by 93 housing units.

DRAWBACKS:	The alternative would cause airspace conflicts with Rickenbacker International Airport. The alternative would not change the noise impacts in the 65+ DNL.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM modeling

FINDINGS AND RECOMMENDATIONS:	Due to the conflicts with LCK, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-11**).

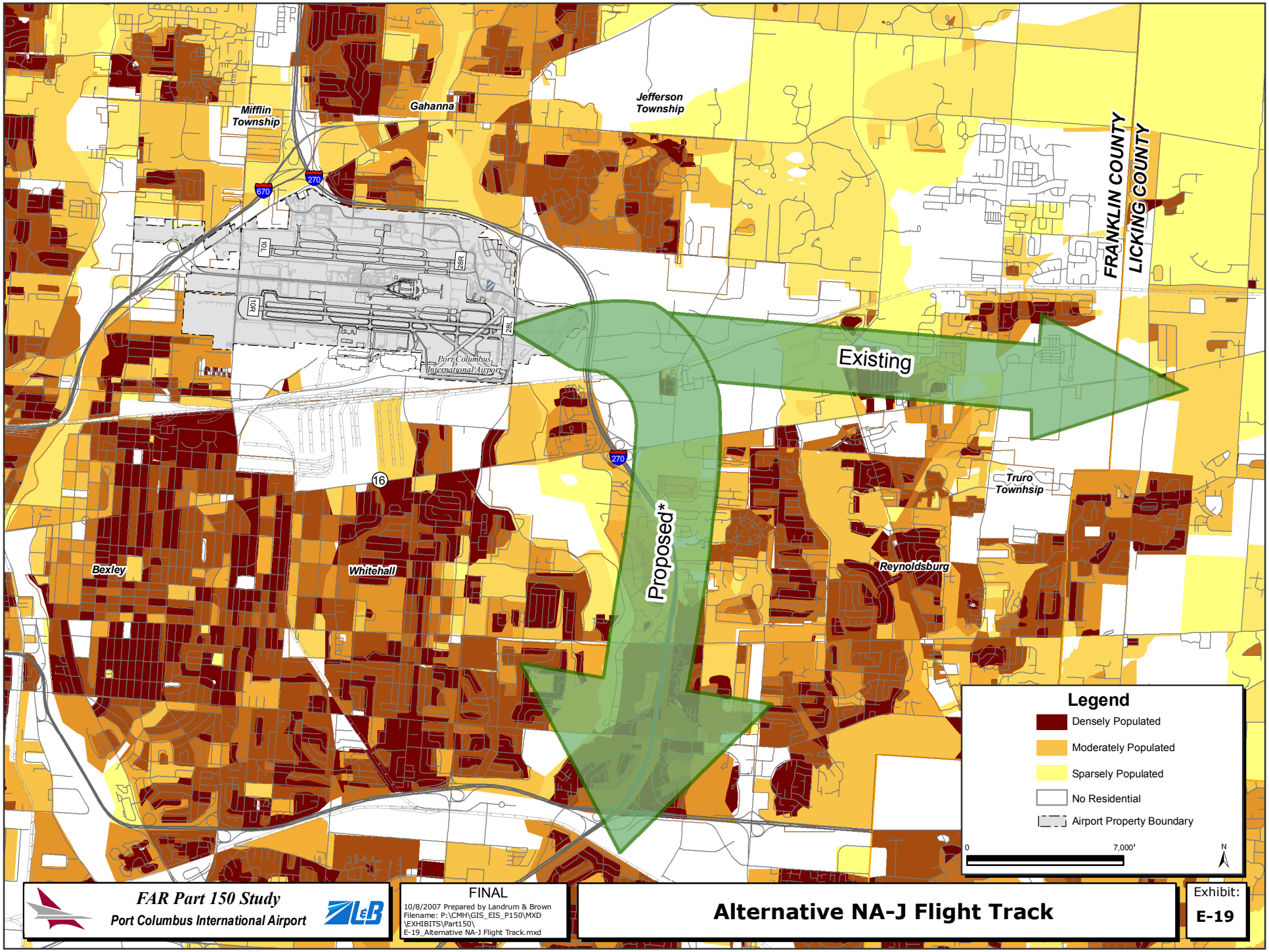
Table E-11
ALTERNATIVE NA-J HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,433**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	271	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,724	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,491**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,563**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



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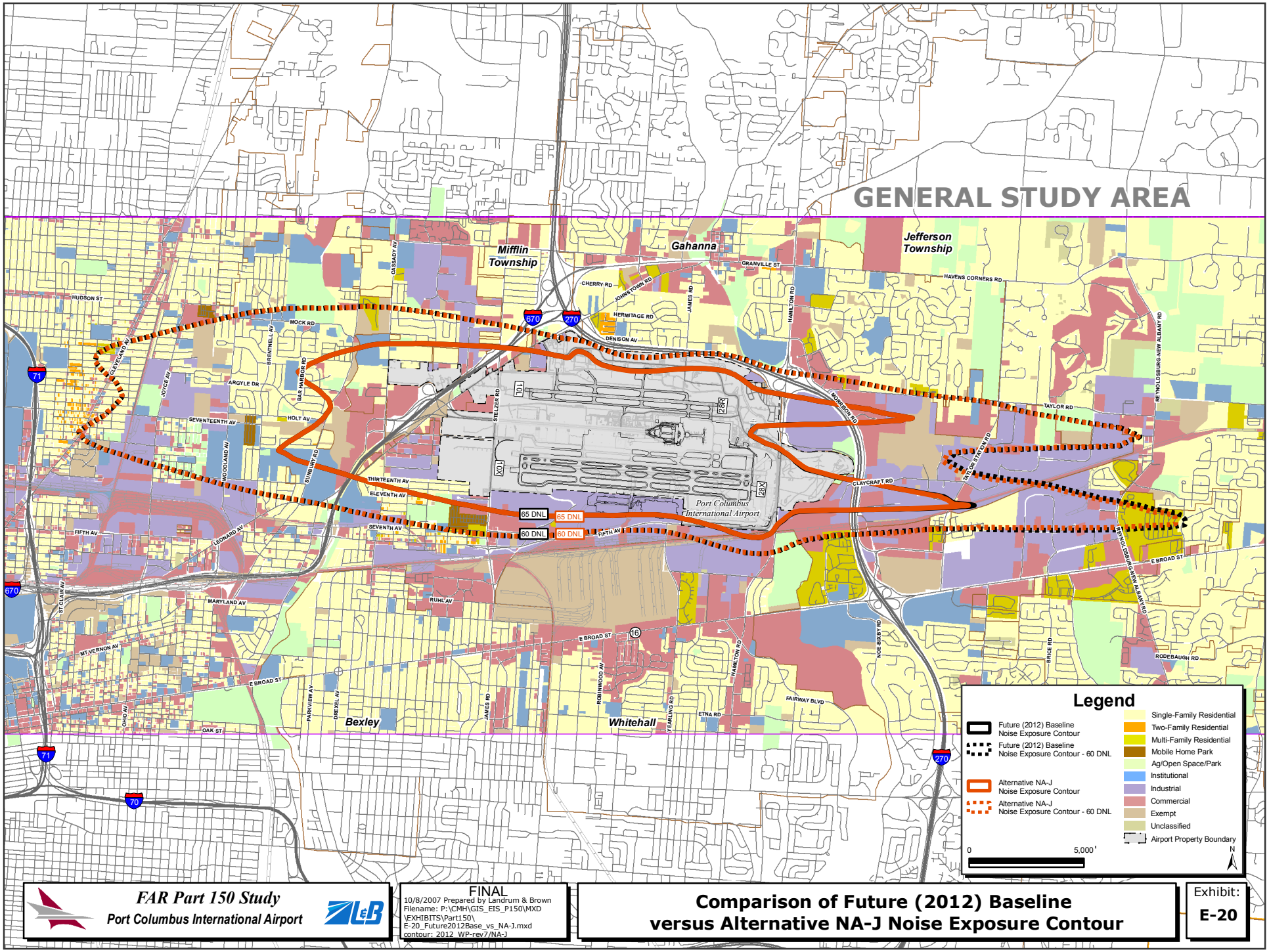
Alternative NA-J Flight Track

Exhibit:
E-19



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contour: 2012_WP-rev7/NA-J

Comparison of Future (2012) Baseline versus Alternative NA-J Noise Exposure Contour

Exhibit: **E-20**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-K

TITLE:	Implement a 15-degree divergent turn off of Runway 10L, after crossing the runway end to a 85-degree heading, only during peak operating periods when traffic warrants.

BACKGROUND AND INTENT:	Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 15-degree left turn off of Runway 10L. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012).

BENEFITS:	This procedure would increase capacity and reduce delays, during peak operating periods, by giving ATCT an additional heading.

DRAWBACKS:	The alternative would not change the noise impacts in the 65+ DNL and would increase noise impacts in the 60-65 DNL by five housing units. The increase in impacts in the 60-65 DNL results from shifting impacts (increase of 7 and decrease of 2 housing units) from one area to another.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM Modeling

FINDINGS AND RECOMMENDATIONS:	Due to no change in impacts in the 65+ DNL and the increase/shift of noise in the 60-65 DNL, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-12**).

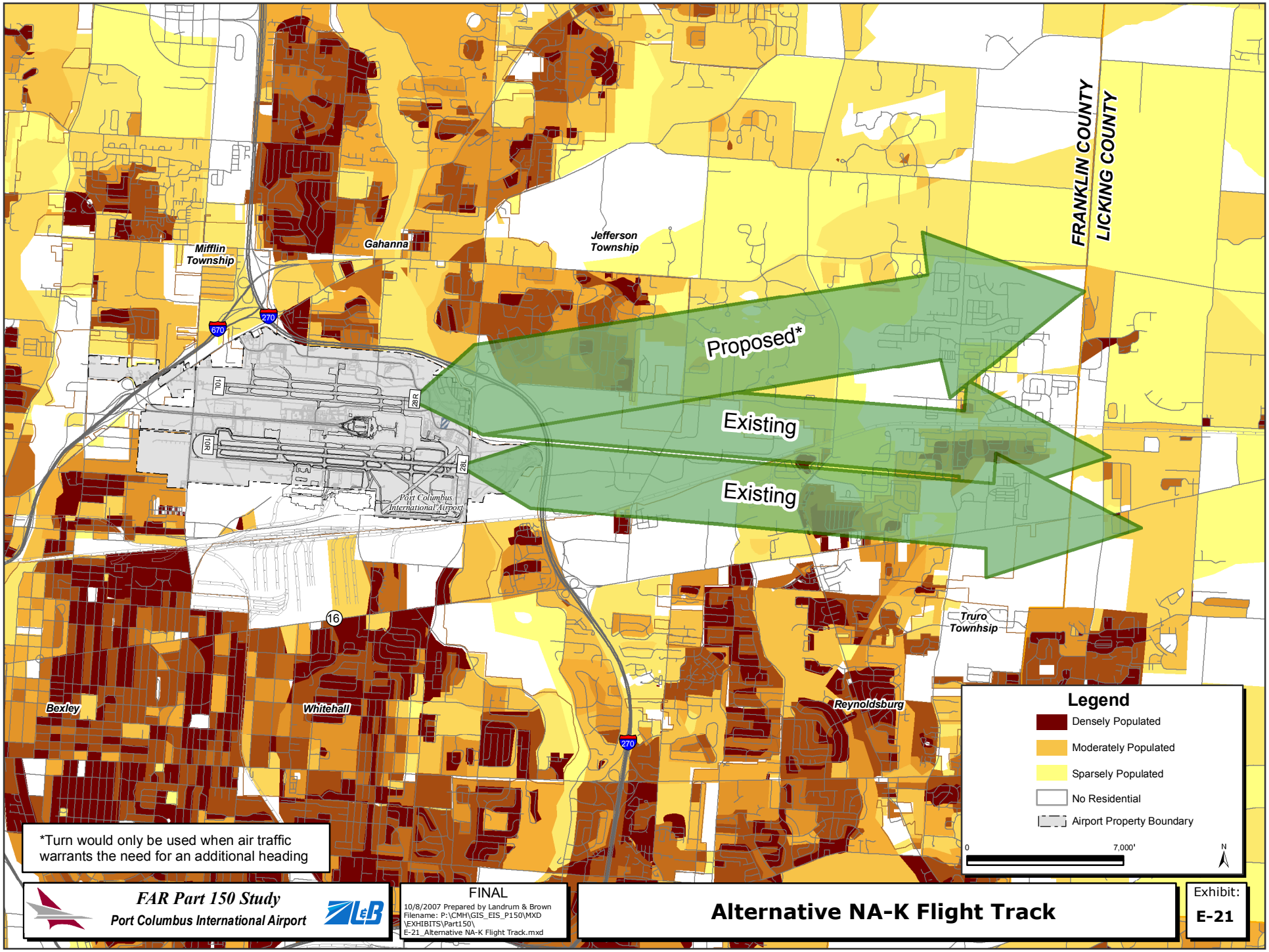
Table E-12
ALTERNATIVE NA-K HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,527**	**642**	**0**	**0**	**642**
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	337	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,752	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**35**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	33	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,589**	**700**	**0**	**0**	**700**
Population					
Total Population[@]	**13,805**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.


Mifflin Township
Gahanna
Jefferson Township
FRANKLIN COUNTY
LICKING COUNTY
Proposed*
Existing
Existing
Port Columbus International Airport
Truro Townhsip
Bexley
Whitehall
Reynoldsburg
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used when air traffic warrants the need for an additional heading
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Port Columbus International Airport
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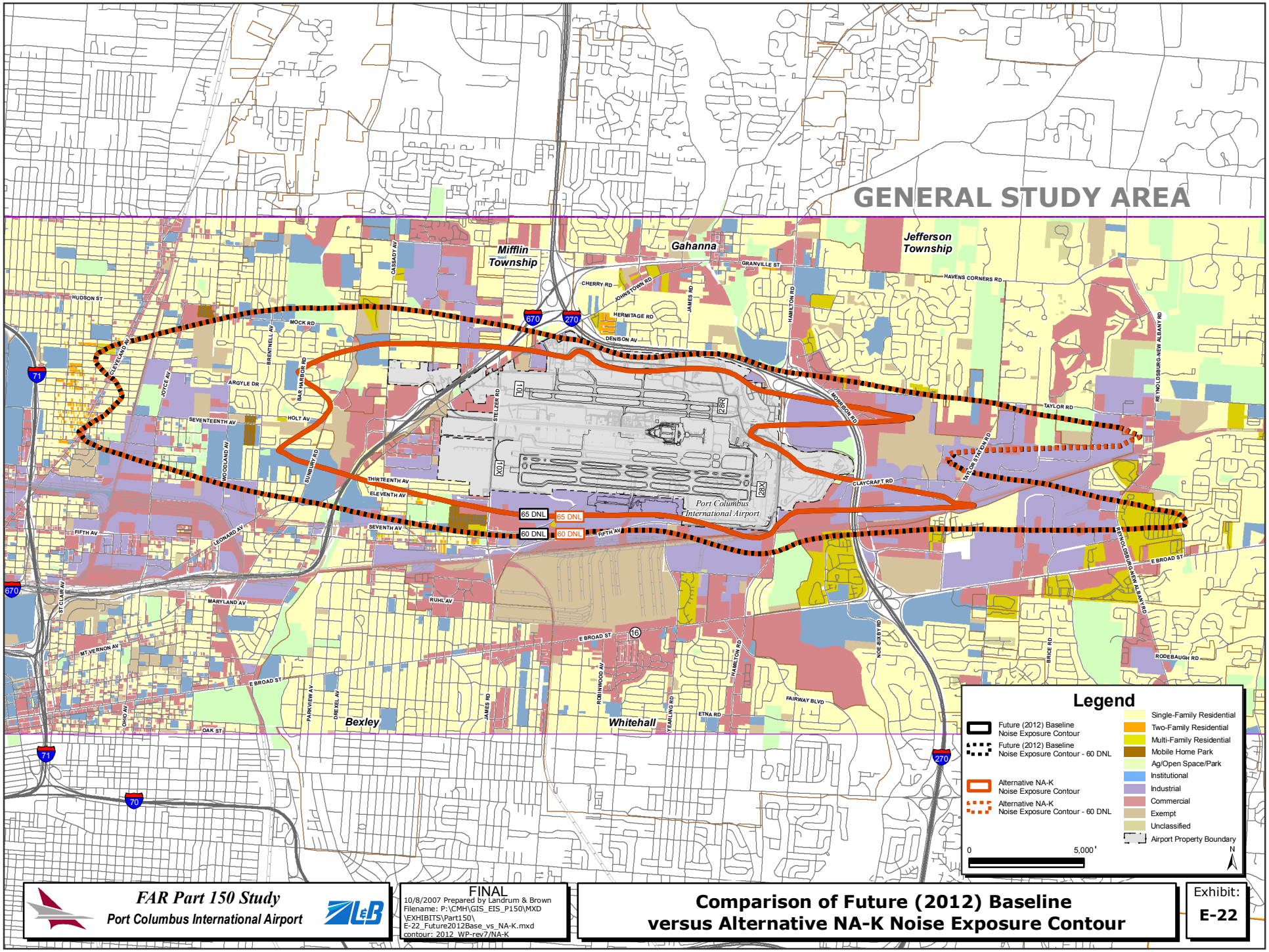
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-21_Alternative NA-K Flight Track.mxd
Alternative NA-K Flight Track
Exhibit:
E-21



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contour: 2012_WP-rev7/NA-K

Comparison of Future (2012) Baseline versus Alternative NA-K Noise Exposure Contour

Exhibit: **E-22**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-L

TITLE:	Modify (NA-5) current tower order to assign jet aircraft to propeller driven aircraft departure procedure.

BACKGROUND AND INTENT:	The intent of this procedure is to assign jet aircraft departing from Runway 10R to the propeller driven aircraft flight tracks defined in current measure NA-5. Current procedures instruct jet aircraft to fly runway heading until reaching five miles or 3,500 feet MSL.

BENEFITS:	None

DRAWBACKS:	If implemented, jets would be at a lower altitude when the turn is initiated which would result in increased noise. Multiple headings for jets would disperse the louder aircraft towards the populated areas north and south of the airport.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the additional noise impacts that would likely occur where the turns are initiated, the alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-M

TITLE:	Modify the current tower order to eliminate the nighttime flight procedures for propeller driven aircraft departures on Runway 10R.

BACKGROUND AND INTENT:	During nighttime operations, 10:30 p.m. to 7:00 a.m. local time, the following procedures are used for departures off runway 10R: • Aircraft normally assigned a runway heading should be assigned a heading of 100 degrees. • Propeller driven aircraft, conventional or turboprop, should be turned no further than 15 degrees left or right (085 to 115). These headings should not be altered until the aircraft has reached 3,000 MSL or is three miles from runway end. • The aircraft will begin the turn at 2.2 DME from the runway 10R LOC/DME. • The aircraft must climb to an altitude of 3,000 feet MSL or three miles from the runway end before turning. This measure was implemented to address AirNet procedures during the nighttime. In 2006 AirNet relocated to LCK. Therefore, the procedures are no longer necessary.

BENEFITS:	AirNet no longer operates out of CMH therefore the procedures are no longer applicable.

DRAWBACKS:	None

COST TO IMPLEMENT:	None

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the relocation of AirNet to LCK and given the small number of nighttime propeller driven aircraft operations the alternative, which would eliminate the nighttime procedures in the current Tower Order, is **RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-N

TITLE:	Create performance-based overlay procedures for all existing and proposed departure procedures.

BACKGROUND AND INTENT:	Airports across the country are using performance-based procedures such as Area Navigation (RNAV) and required Navigation Procedures (RNP) to assist in defining flight routes. RNAV/RNP procedures utilize ground-based Differential Global Positioning System (DGPS antenna); satellite-based, Global Positioning System (GPS); and on-board Flight Management System (FMS)/GPS equipment to assist the pilot in navigating from point to point. The systems work by identifying the geographic location of aircraft in relationship to another geographic location called a "waypoint." This provides the necessary information to guide the aircraft towards the desired "waypoint." With GPS, the pilot manually guides the aircraft towards the "waypoint," while an FMS works with the auto-pilot system on the aircraft to automatically fly the aircraft towards the desired "waypoint." In both cases, the use of GPS/FMS can reduce the width and size of departure corridors over standard navigation techniques. The advantage of FMS is that it can more accurately guide the aircraft towards the desired point than can the GPS/pilot system. Aircraft must be equipped with the necessary equipment to fly RNAV/FMS procedures. For RNP procedures, a specific equipment rating is applied to the procedure to insure that aircraft are able to maintain the intended routes.

BENEFITS:	Increased accuracy on turns and decreased width of flight corridors. In addition, airlines experience financial benefits through better control of flight, reduced separation, and fuel savings.

DRAWBACKS:	Not all aircraft are equipped with RNAV/RNP capability (typically, the loudest aircraft are the oldest aircraft and the least likely to have RNAV on board). In addition, commercial airlines and high-end business jets are the greatest users of this equipment because of the cost.

COST TO IMPLEMENT:	The costs mainly accrue to the airlines and aircraft owners for equipping their aircraft. The costs for additional training, development, and publication of new procedures, and changing approach plates at radar positions would be the responsibility of the FAA. In addition, the cost of an environmental analysis, either an environmental assessment or an environmental impact statement, would be required.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-N
Continued

EVALUATION METHOD:	Qualitative assessment

FINDINGS AND RECOMMENDATIONS:	Due to the potential benefits in both noise and fuel savings, the alternative is **RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-O

TITLE:	Implement a Continuous Descent Approach (CDA) procedure for all runway ends.

BACKGROUND AND INTENT:	A CDA procedure combines the benefits of a steady, continuous descent with optimized flap and landing gear management to create a quieter approach for noise-sensitive communities under the approach path. Current ATCT procedures involve a series of short descents and periods of leveling off that require reducing thrust or changing flap settings, before merging with the required three-degree glideslope from below for the final approach. The CDA procedure involves starting a continuous steady descent from as high as enroute altitudes (25,000-35,000 feet), which allows for a reduction in the required amount of power, thereby reducing noise exposure in two ways: by keeping the aircraft at a higher altitude above the ground; and by stabilizing the flap settings, which reduces airframe noise, and amount of applied thrust. A CDA procedure was developed by research teams in the industry in order to reduce fuel burn on approach, but has the added benefit of reducing noise exposure. The procedure is currently being evaluated in both the United States and Europe. In late 2002, researchers from MIT, FAA, NASA, Boeing, UPS, and the Louisville International Airport conducted a test of the procedure to evaluate noise and pollutant emissions. The report indicated that the procedure did reduce noise exposure ranging from four to six decibels in areas between 10 to 20 miles from the runway. The tests also indicated that the CDA provides an improvement in fuel efficiency. CDA procedures are currently implemented on a limited basis at Sacramento International Airport.

BENEFITS:	A Continuous Descent Approach procedure has the potential to reduce noise exposure ranging from four to six dB approximately ten to 20 miles from the airport. The CDA procedure additionally would provide benefits to airlines by reducing fuel burn.

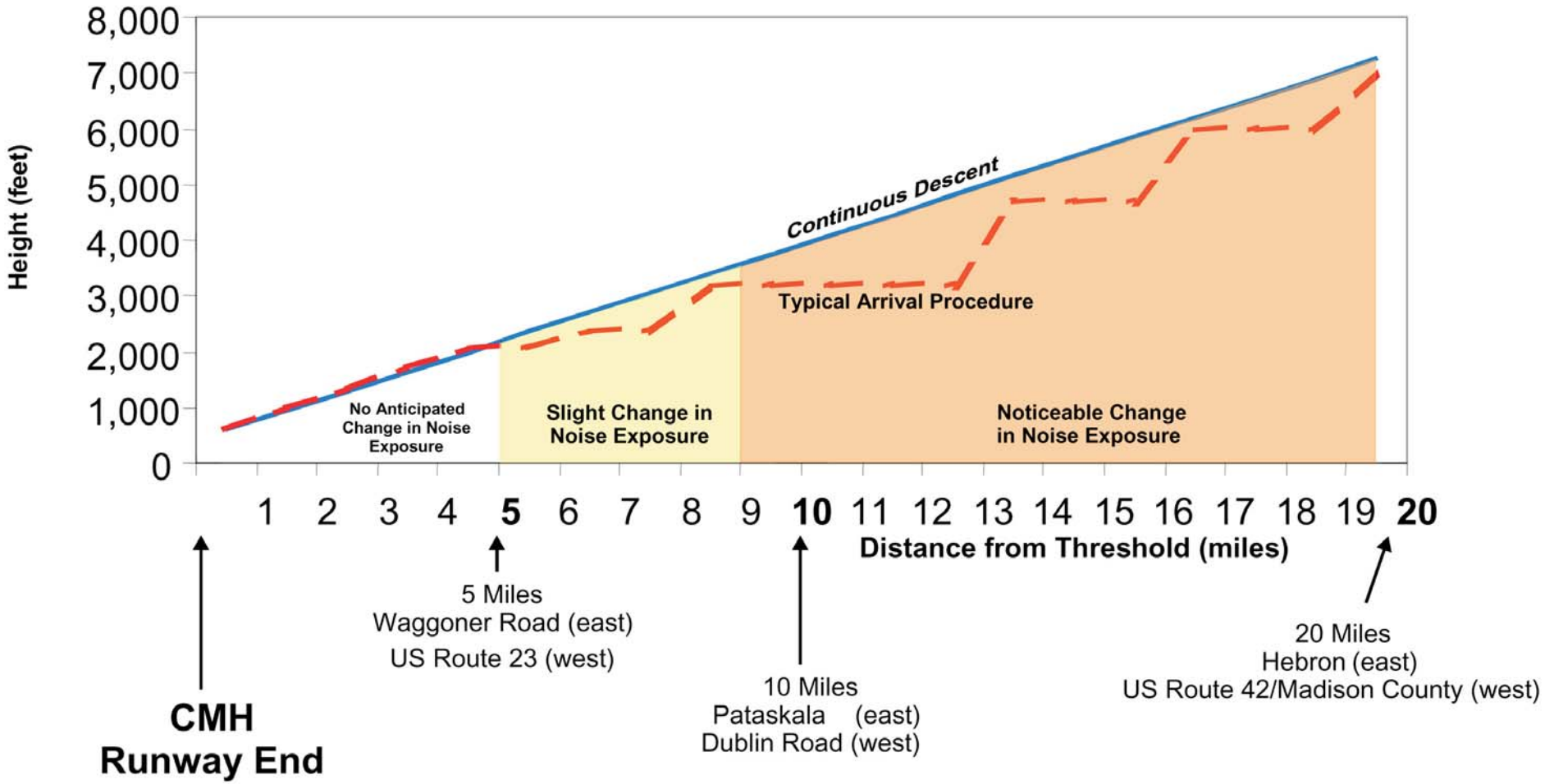
NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-O *Continued*

DRAWBACKS:	While CDA procedures are expected to provide benefits to airlines, airports, and communities surrounding an airport, there are potential drawbacks that prevent its widespread use at this time. Primarily, these drawbacks are based on the fact that the procedure is only in its primary stages of development. A number of additional obstacles exist, including the requirement that aircraft maintain sufficient separation during arrivals. In the case of the 2002 test at Louisville, aircraft were required to maintain 15 miles of entrail separation. This required spacing of aircraft could cause a substantial reduction in the capacity at CMH during peak hours of operations. The requirements of the test included a participating airline with similar equipment and a similar approach that is properly equipped with satellite navigation equipment. One of the advantages of the CDA procedure is that it requires aircraft to navigate utilizing GPS/FMS equipment versus traditional ground-based navigation aids. All aircraft would be required to upgrade their electronics to take advantage of the CDA procedure. Most notably, approved procedures must be developed by the FAA for each individual airport and pilots and ATCT personnel must be trained to properly use the procedure. Also, techniques must be developed to reduce the in trail separations experienced in the Louisville test to assure the maintenance of airfield and airspace capacity.

COST TO IMPLEMENT:	Costs of developing CDA procedures and training are undefined at this time.

EVALUATION METHOD:	Qualitative assessment

FINDINGS AND RECOMMENDATIONS:	Since the procedure is in test stages, the alternative is **RECOMMENDED** for further evaluation at this time. The CRAA will look into the possibility of CMH as a test airport during less busy times such as nighttime.


8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Height (feet)
Continuous Descent
Typical Arrival Procedure
No Anticipated Change in Noise Exposure
Slight Change in Noise Exposure
Noticeable Change in Noise Exposure
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Distance from Threshold (miles)
CMH Runway End
5 Miles
Waggoner Road (east)
US Route 23 (west)
10 Miles
Pataskala (east)
Dublin Road (west)
20 Miles
Hebron (east)
US Route 42/Madison County (west)

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-P

TITLE:	Implement Close-in Community Noise Abatement Departure Profiles (NAPD).

BACKGROUND AND INTENT:	For several years, the FAA has worked to develop and standardize profiles to minimize airplane noise. As part of that commitment, the FAA has worked with airport managers, airplane operators, pilots, special interest groups, and Federal, State and local agencies in numerous programs for evaluating noise levels in the airport environment. The research considered a variety of departure flight tracks and profiles. Based upon that research, the FAA has developed acceptable criteria for two NADP's that when incorporated into a comprehensive noise abatement program may provide environmental benefits to communities near the airport. A Close-in Community NAPD is designed to provide noise reduction to areas located in close proximity to the departure end of a runway (<three miles). The procedure is most effective on Stage 2 aircraft with older engines. When the procedure is applied to Stage 3 aircraft the result is generally an increase noise in all areas.

BENEFITS:	May provide noise reductions for areas that are located in close proximity to the departure end of a runway.

DRAWBACKS:	May increase noise over other areas that are not within close proximity to the departure end of the runway. Majority of aircraft at CMH are Stage 3

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of both the FAA and the CRAA.

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the majority of aircraft at CMH being Stage 3, no benefits are seen with implementing this procedure, therefore this alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-Q

TITLE:	Implement Distant Community Noise Abatement Departure Profiles (NAPD).

BACKGROUND AND INTENT:	For several years, the FAA has worked to develop and standardize profiles to minimize airplane noise. As part of that commitment, the FAA has worked with airport managers, airplane operators, pilots, special interest groups, and Federal, state and local agencies in numerous programs for evaluating noise levels in the airport environment. The research considered a variety of departure flight tracks and profiles. Based upon that research, the FAA has developed acceptable criteria for two NADP's that when incorporated into a comprehensive noise abatement program may provide environmental benefits to communities near the airport. A Distant Community NADP lower noise levels beyond three miles of take off roll. (>three miles). The procedure is most effective on Stage 2 aircraft with older engines. When the procedure is applied to Stage 3 aircraft the result is generally an increase noise in all areas.

BENEFITS:	May provide noise reductions for noise sensitive areas that are located greater than three miles from the departure end of a runway.

DRAWBACKS:	May increase noise over areas within close proximity to the departure end of the runway. Majority of aircraft at CMH are Stage 3

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of both the FAA and the CRAA.

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the majority of aircraft at CMH being Stage 3, no benefits are seen with implementing this procedure, therefore this alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-R

TITLE:	Renew efforts to maximize east flow during calm winds (arrive and depart Runways 10L/10R).

BACKGROUND AND INTENT:	The ATCT Tower Order states the airport should operate in east flow during calm winds. Currently the airport operates in west flow approximately 75 percent of the time (arriving and departing Runways 28R/28L) and east flow 25 percent of the time (arriving and departing Runways 10R/10L). Due to airline scheduling and airfield layout this is not implemented as would be expected based on wind direction (wind analysis indicates 60 percent west and 40 percent east). The CRAA and the ATCT are currently working on items that will help to increase the use of east flow such as a hold pad on Runway 10L, ATCT visibility of the airfield, and outreach with the airlines. The intent of this alternative is to maximize east flow operations when weather permits to direct departures, which are generally louder than arrivals, over the less densely populated areas to the east. This alternative would reconfirm the intent of the current noise abatement measure NA-4.

BENEFITS:	This alternative would reduce departures over the more densely populated areas to the west of the airport. Overall impacts in the 65+ DNL would be decreased by 212 housing units and overall impacts in the 60-65 DNL would be decreased by 119 housing units.

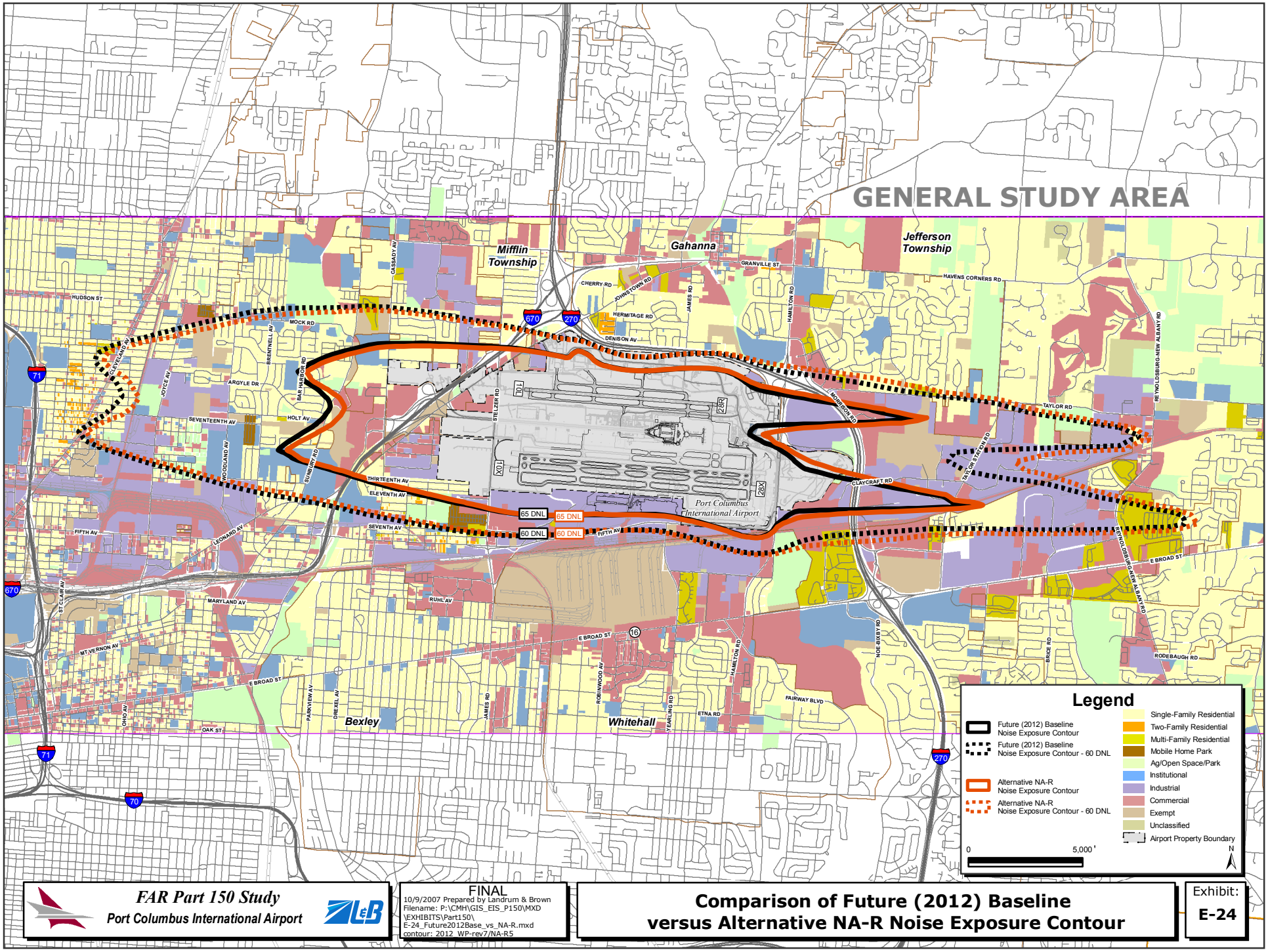
DRAWBACKS:	Operating in east flow is dependent on the winds (surface and altitude). There would also be an increase in the taxi times. The reduction in impacts in the 60-65 DNL results from shifting impacts (increase of 594 and decrease of 713 housing units) from one area to another. Of the increase in 594 impacts 213 shifted from 65 to 60 DNL (decreased noise).

COST TO IMPLEMENT:	The cost of testing and monitoring the procedure would be the responsibility of the CRAA.

EVALUATION METHOD:	INM Modeling

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-R
Continued

FINDINGS AND RECOMMENDATIONS:	This is an approved measure and is currently in the Tower Order. However, it is understood that implementation may be enhanced by increasing communication, monitoring data, and studying the other operational factors that affect runway use. Therefore, the renewal of efforts to maximize east flow is **RECOMMENDED** for further evaluation (see **Table E-13**).



FAR Part 150 Study
Port Columbus International Airport

FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-24_Future2012Base_vs_NA-R.mxd
contour: 2012 WP-rev7/NA-R5

Comparison of Future (2012) Baseline versus Alternative NA-R Noise Exposure Contour

Exhibit:
E-24

TABLE E-13
ALTERNATIVE NA-R HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,277**	**431**	**0**	**0**	**431**
Mitigated					
Sound Insulated	434	224	0	0	224
Easement	472	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,277	140	0	0	140
Mifflin Township	**13**	**56**	**0**	**0**	**56**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	12	2	0	0	2
Gahanna	**148**	**1**	**0**	**0**	**1**
Mitigated					
Sound Insulated	3	1	0	0	1
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	145	0	0	0	0
Jefferson Township	**27**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	4	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	23	0	0	0	0
Total Housing Units	**5,465**	**488**	**0**	**0**	**488**
Population					
Total Population@	**13,499**	**1,205**	**0**	**0**	**1,205**
Noise-Sensitive Facilities					
Churches	34	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-S

TITLE:	Designate Runway 10L/28R as the preferential nighttime (10:00 p.m. to 7:00 a.m.) runway.

BACKGROUND AND INTENT:	Currently 10R/28L is the most heavily used runway for all air traffic because it is the longer of the two runways and it is the designated nighttime runway for noise purposes. This measure is designed to evaluate using Runway 10L/28R as the preferential nighttime runway.

BENEFITS:	This alternative would reduce noise during the nighttime for the areas southeast and southwest of the airport.

DRAWBACKS:	The south runway is the longer of the two runways and will be the preferred runway for airlines. There would be an increase of noise during the nighttime for the areas northeast and northwest of the airport. In addition, there would be an increase in taxi times for aircraft located on the south side of the terminal.

COST TO IMPLEMENT:	None

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the north runway being the shortest runway and the increase in taxi times that would occur, the alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-T

TITLE:	Designate Runway 10L/28R as the preferential runway.

BACKGROUND AND INTENT:	At CMH, the selection of runway is based in large part on the length of the runway and where the aircraft is going to/coming from on the airport. In general, airlines that are located on the north side of the terminal prefer the north runway and likewise for the airlines on the south side of the terminal. Heavier aircraft and those with farther destinations will prefer the longer runway (10R/28L). Based on these factors, Runway 10R/28L is currently the most heavily used runway. This alternative would identify Runway 10L/28R as the preferential runway. However, due to the length of Runway 10L/28R and its location in proximity to the terminal, it is unlikely that implementation would result in runway use notably different than what is currently occurring.

BENEFITS:	This alternative could reduce noise for the areas southeast and southwest of the airport if it was feasible to implement.

DRAWBACKS:	As mentioned above, it is unlikely that this alternative would result in any notable change in runway use. If it did however, the change would be a direct shift of noise from the communities in line with the south runway to the communities in line with the north runway.

COST TO IMPLEMENT:	None

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the likelihood of this alternative not being implemented, the alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-U

TITLE:	Designate Runway 10R/28L as the preferential runway.

BACKGROUND AND INTENT:	At CMH, the selection of runway is based in large part on the length of the runway and where the aircraft is going to/coming from on the airport. In general, airlines that are located on the north side of the terminal prefer the north runway and likewise for the airlines on the south side of the terminal. Heavier aircraft and those with farther destinations will prefer the longer runway (10R/28L). Based on these factors, Runway 10R/28L is currently the most heavily used runway. This alternative would identify Runway 10R/28L as the preferential runway. However, due to the large number of airlines located on the north side of the terminal, it is unlikely that implementation would result in runway use notably different than what is currently occurring.

BENEFITS:	This alternative could reduce noise for the areas northeast and northwest of the airport if it was feasible to implement.

DRAWBACKS:	As mentioned above, it is unlikely that this alternative would result in any notable change in runway use. If it did however, the change would be a direct shift of noise from the communities in line with the south runway to the communities in line with the north runway.

COST TO IMPLEMENT:	None

EVALUATION METHOD:	Qualitative

FINDINGS AND RECOMMENDATIONS:	Due to the likelihood of this alternative not being implemented, the alternative is **NOT RECOMMENDED** for further evaluation.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-V

TITLE:	Implement dependent head to head operations during calm winds at night for (includes a 15-degree right departure turn off 10R).

BACKGROUND AND INTENT:	Noise is generally more disruptive during the nighttime (10:00 p.m. to 7:00 a.m.). The intent of this alternative is to direct nighttime flights over the more compatible land uses that exist east of the airport. This would be accomplished by requiring nighttime arrivals to use Runway 28R (approach from the east) and nighttime departures to use Runway 10R (depart to the east). Because this would focus both arrivals and departures to the area east of the airport, it could only be implemented during calm winds, which allows aircraft to operate in either direction. Calm winds occur approximately 30 percent of the time during the nighttime hours at CMH. In order to ensure safety, the departure from Runway 10R would be instructed to turn 15 degrees to the right immediately after takeoff. The ATCT was not opposed to these procedures, but did state that implementation may be limited because of the necessary wind conditions and coordination that would be required.

BENEFITS:	This alternative would decrease noise impacts in the 65+ DNL by 70 housing units. This alternative would decrease noise impacts in the 60-65 DNL by 74 housing units.

DRAWBACKS:	This procedure could only be used when operating levels and winds permit. In addition, if implemented this alternative would require additional air traffic coordination to ensure safety, which could make the alternative difficult to implement. The reduction in impacts in the 60-65 DNL results from shifting impacts (increase of 580 and decrease of 654 housing units) from one area to another.

COST TO IMPLEMENT:	The cost for additional training, development, and publication of new procedures would be the responsibility of the FAA.

EVALUATION METHOD:	INM Modeling

FINDINGS AND RECOMMENDATIONS:	Due to difficulties in consistently implementing the alternative and the shifting of noise in the 60-65 DNL, the alternative is **NOT RECOMMENDED** for further evaluation (see **Table E-14**).

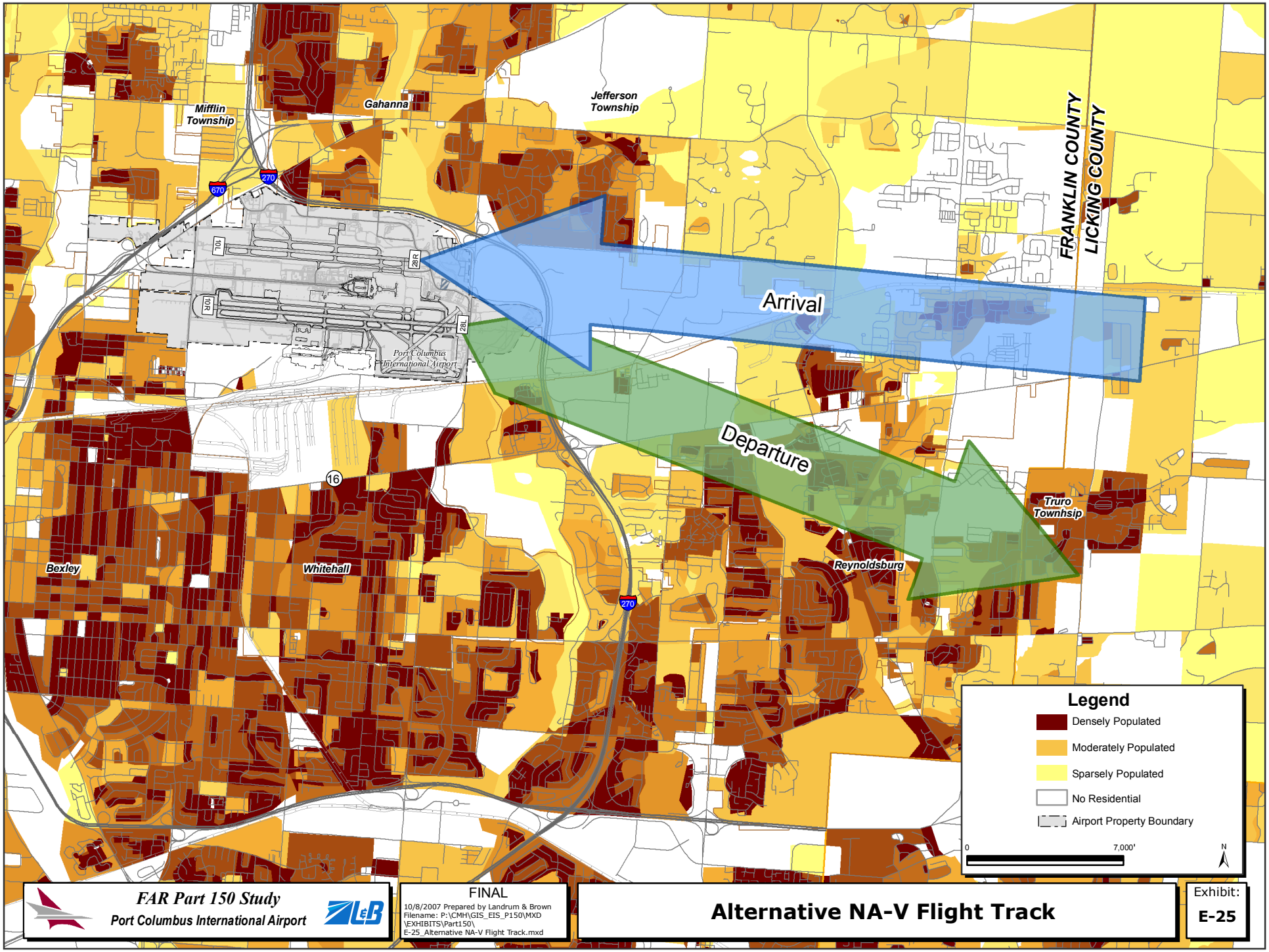
Table E-14
ALTERNATIVE NA-V HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,419**	**572**	**0**	**0**	**572**
Mitigated					
Sound Insulated	386	272	0	0	272
Easement	238	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	87	74	0	0	74
Not Previously Mitigated	4,708	226	0	0	226
Mifflin Township	**11**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	10	4	0	0	4
Gahanna	**52**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	50	0	0	0	0
Jefferson Township	**28**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	28	0	0	0	0
Total Housing Units	**5,510**	**630**	**0**	**0**	**630**
Population					
Total Population[@]	**13,610**	**1,556**	**0**	**0**	**1,556**
Noise-Sensitive Facilities					
Churches	38	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



FAR Part 150 Study
Port Columbus International Airport

FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
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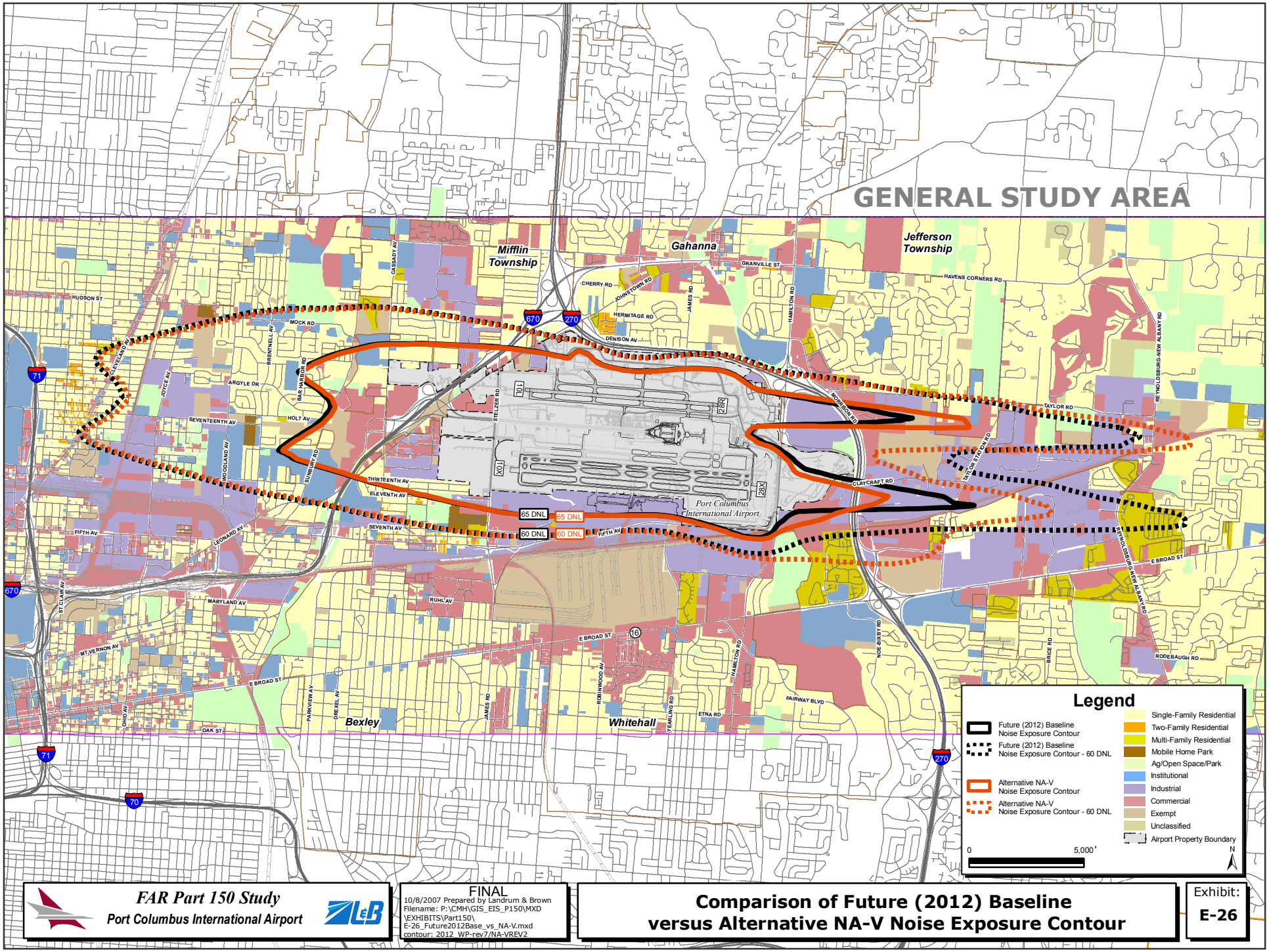
E-25_Alternative NA-V Flight Track.mxd

Alternative NA-V Flight Track

Exhibit:
E-25



FAR Part 150 Study
Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
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contour: 2012_WP-rev7/NA-VREV2

Comparison of Future (2012) Baseline versus Alternative NA-V Noise Exposure Contour

Exhibit: **E-26**

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-W

TITLE:	Construct a noise berm/wall.

BACKGROUND AND INTENT:	The CRAA has proposed the relocation of Runway 10R/28L 702 feet to the south of the existing runway. The FAA is currently conducting an Environmental Impact Statement (EIS) to assess the impacts of the proposed project. Part of this proposal will require that at a minimum 15 homes on the north side of 13th Avenue in East Columbus be removed to meet airport design standards. The homes would fall within the relocated Runway Protection Zone (RPZ), which is an area around a runway that is required to be void of tall objects or places in which humans may congregate. The CRAA has acknowledged that removing these 15 homes would alter the character of 13th Avenue west of Sterling Road. In order to address this, the CRAA has suggested a number of options. 1) remove only the 15 homes required for the RPZ 2) remove the 15 homes on the north side of 13th Avenue and the 15 homes immediately across the street on the south side of 13th Avenue 3) remove all of the roughly 40 homes on 13th Avenue west of Sterling Road. The decision on which option will be pursued is dependent on the outcome of the EIS process, which is expected to be complete in 2009. However, the CRAA has recommended that whichever option is decided upon, a noise berm/wall should be constructed to help reduce noise and to minimize the visual impact of the removed homes. The berm/wall would be 16 feet high approximately 2,000 feet in length. For planning purposes, the largest noise berm/wall is being shown so that maximum costs can be calculated (see **Exhibit E-27**). It should not be construed from the exhibit or from this recommendation that the CRAA wishes or recommends removing all of the homes on 13th Avenue west of Sterling Road. This depiction shows the largest possible noise berm/wall. Further discussion with the FAA and the affected residents will occur before a final decision will be made as to which option will be pursued.

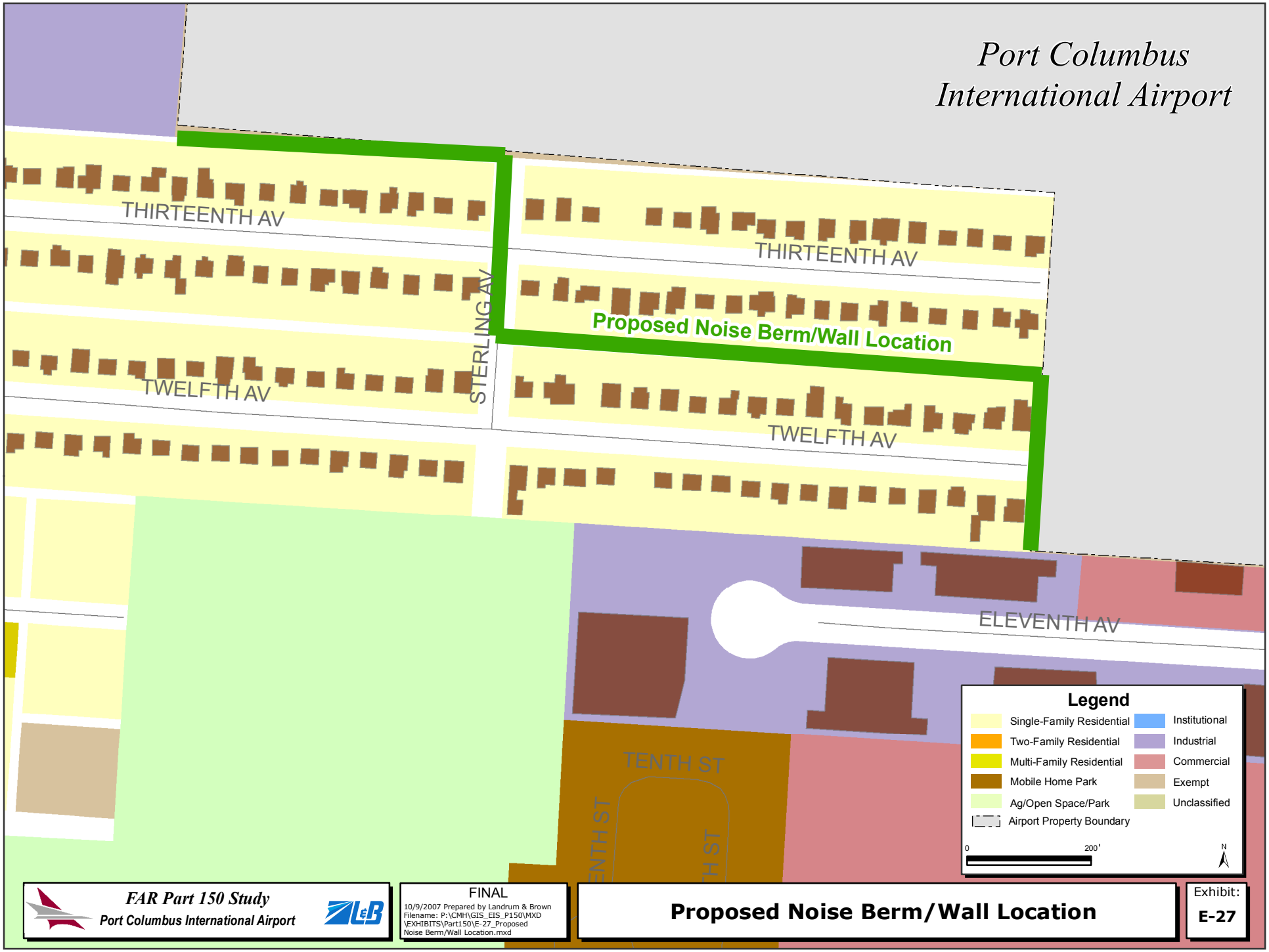
BENEFITS:	A 16-foot barrier can reduce ground noise from ground activity for the homes immediately adjacent to a wall by to 3 to 5 decibels (dB) and can replace the visual impact of removed homes.

DRAWBACKS:	A noise/berm wall has limited effect for homes located 100+ feet away and provides no beneficial reduction of noise from aircraft in flight. In addition, a noise berm/wall would be expensive.

COST TO IMPLEMENT:	Construction of a noise berm/wall, 2,000 feet long, is estimated to cost approximately $1.5 million.

EVALUATION METHOD:	Qualitative Assessment

FINDINGS AND RECOMMENDATIONS:	Due to the benefits the berm/wall would provide to the residents, this alternative is **RECOMMENDED** for further evaluation. Again, this recommendation is contingent upon the findings of the EIS and in no way commits the CRAA to removing all of the homes shown on the exhibit. However, if the CRAA's proposed project is approved and homes are removed, this alternative would provide the CRAA with a potential source for funding the construction of a noise berm/wall in this area.


Port Columbus
International Airport
THIRTEENTH AV
THIRTEENTH AV
STERLING AV
Proposed Noise Berm/Wall Location
TWELFTH AV
TWELFTH AV
ELEVENTH AV
TENTH ST
Legend
Single-Family Residential
Two-Family Residential
Multi-Family Residential
Mobile Home Park
Ag/Open Space/Park
Airport Property Boundary
Institutional
Industrial
Commercial
Exempt
Unclassified
0
200'
N
FAR Part 150 Study
Port Columbus International Airport
FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\E-27_Proposed
Noise Berm/Wall Location.mxd
Proposed Noise Berm/Wall Location
Exhibit:
E-27

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-X

TITLE:	Upgrade Ground Run-up Barriers (location/materials/size).

BACKGROUND AND INTENT:	Run-up barriers are constructed to reduce noise impacts associated with run-up operations. They are typically installed at airports with heavy maintenance facilities and large numbers of complaints related to run-up operations. The airport currently has three ground run-up barriers at CMH. Barrier A (located to the south of Concourse B), Barrier B (located north of the southeast end of Taxiway G), and Barrier C (located on the north airfield north of Runway 10L/28R). An assessment of each found that Barriers A and C are properly sized and located for the types of operations they serve. However, Barrier B may need to be relocated and/or expanded to fit in with proposed maintenance hangars and to accommodate larger aircraft. Currently Barrier B can accommodate Design Group C-III aircraft.

BENEFITS:	The construction of a ground run-up barrier can reduce noise from engine run-ups by up to 10 dB depending on proximity of homes to the aircraft. Upgrading Barrier B to accept Design Group C-III aircraft would enable the barrier to accommodate the future demand at the airport. Relocating the barrier would allow it to serve maintenance activities more efficiently.

DRAWBACKS:	The cost of a ground run-up barrier can be high and would only benefit those people living near the barriers.

COST TO IMPLEMENT:	Constructing/expanding a run-up barrier could cost in excess of $800,000.

EVALUATION METHOD:	Qualitative assessment

FINDINGS AND RECOMMENDATIONS:	Due to the proposed hangars and the benefits of upgrading Barrier B, this alternative is **RECOMMENDED** for further evaluation.

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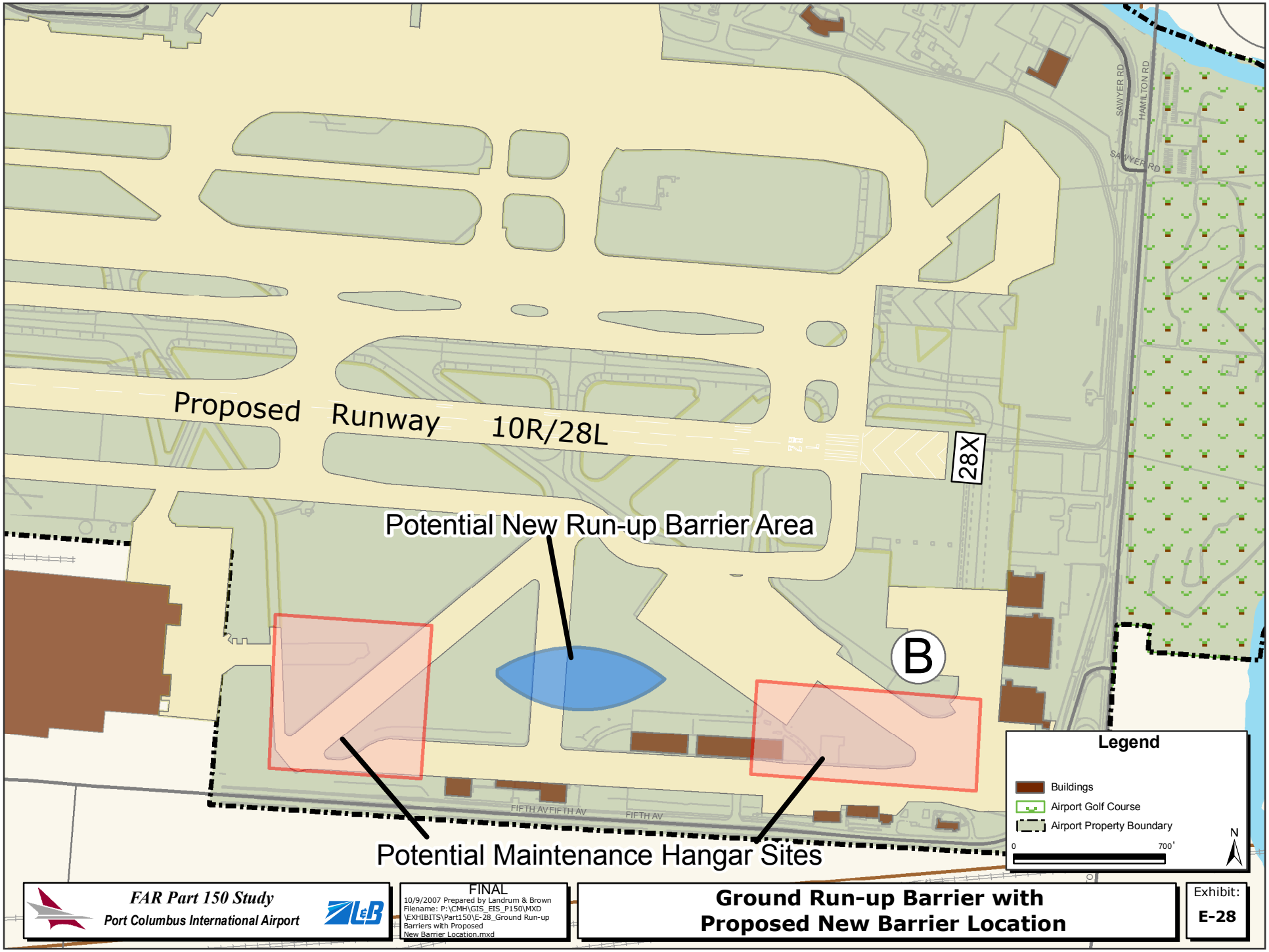

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/9/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-28_Ground Run-up Barriers with Proposed New Barrier Location.mxd

Ground Run-up Barrier with Proposed New Barrier Location

Exhibit:
E-28

NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-Y

TITLE:	Evaluate Ground Run-up restrictions.
BACKGROUND AND INTENT:	CMH currently has restrictions for when, where and what type of run-ups occur at the airport (see Attachment E-1).
BENEFITS:	Restrictions to run-up operations can minimize the disruption caused by noise, especially during the nighttime hours.
DRAWBACKS:	Run-up restrictions need to be developed in a way that does not impact the livelihood of the airport operators at the airport.
COST TO IMPLEMENT:	None
EVALUATION METHOD:	Qualitative
FINDINGS AND RECOMMENDATIONS:	The current run-up restrictions at CMH have been evaluated and no changes are recommended at this time, therefore this alternative is **NOT RECOMMENDED** for further evaluation.

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Current Ground Run-Up Restriction at CMH

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COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

MEMO

Date: February 9, 2006

To: Airline Managers
General Aviation Managers
CMH ATCT
CRAA Airport Operations

From: Dave Clawson, CRAA Noise Abatement Office

Re: Revised Nighttime Aircraft Maintenance Run-Up Policy

Attached is the revised Port Columbus International Airport Nighttime (2200-0700) Aircraft Maintenance Run-Up Policy. This policy replaces all previous versions.

This policy, and the procedures contained herein, is effective as of Saturday, February 11, 2006. All nighttime aircraft maintenance run-ups should be performed according to these new procedures beginning at 0000 hours (12:00 Midnight) on February 11, 2006.

Please distribute this policy to appropriate maintenance personnel in your section so they may become familiar with the procedures and revisions included herein. Any questions or interpretations of the policy may be directed to the Columbus Regional Airport Authority Noise Abatement Office at 239-5059.

F. Martino, American/American Eagle
J. Lischak, Chautauqua
M. Dooley, Continental
F. Sciulli, Delta
B. Levandusky, Northwest
P. Froehlich, Midwest Connect/Skyway
C. Perrino, Southwest
B. Kennedy, United
S. Dicocco, USAirways/America West
R. Moodespaugh, Lane Aviation
B. McNeer, NetJets
D. Wolfe, Nationwide
B. Tylka, Million Air
C. Lenfest, CMH ATCT
C. Hinds, CRAA Airport Operations

PORT COLUMBUS INTERNATIONAL AIRPORT
NIGHTTIME
AIRCRAFT MAINTENANCE RUN-UP POLICY

1. This policy replaces all previous Port Columbus International Airport Aircraft Maintenance Run-Up Policies or Management Directives.

   The effective date of this policy is February 11, 2006.

2. All jet aircraft requiring nighttime engine maintenance run-ups which exceed an idle power setting must be taxied or towed to the South Terminal Apron Run-up Barrier, (Barrier A); the Southeast Cargo Run-up Barriers, (Barrier B); or the Run-up Barrier southwest of NetJets on the North Airfield (Barrier C), as appropriate (see attached diagrams).

   2.1 Nighttime hours are defined as the period between 2200 and 0700 hours, (10:00 p.m. - 7:00 a.m.).

   2.2 Maintenance personnel will contact the Airport Tower (ATCT) to verify wind speed and wind direction prior to utilizing the Run-up Barrier (s).

   2.3 Run-ups conducted at Barrier A must not exceed 80 percent (80%) of full power with a wind speed of not more than seven (7) knots for Stage II Aircraft.

   Full power run-ups may be conducted at Barrier A with a wind speed of not more than seven (7) knots for Stage III Aircraft.

   2.4 Full power run-ups may be conducted at Barrier B when the wind speed is seven (7) knots.

   2.5 Stage II aircraft run-ups conducted at Barrier C must not exceed eighty percent (80%) of full power with a wind speed of not more than seven (7) knots.

   2.6 Stage III aircraft full power run-ups may be conducted at Barrier C on an as needed basis.

   2.7 Run-ups at any barrier must be delayed if the wind speed exceeds seven (7) knots.

   2.8 Maintenance personnel shall also contact the Airport Communications Center via radio or telephone (239-4029) and request them to notify Airport Operations (Operations Coordinator) that a run-up is being performed at Barrier A, B, or C, as appropriate.

3. All jet aircraft parked at a gate position requiring a minor engine adjustment shall not use a

power setting exceeding idle power.

3.1 All jet aircraft parked at a gate position requiring **daytime** engine maintenance run-ups which exceed an idle power setting may be taxied or towed to Barrier A, South Terminal Apron.

3.2 For most jet aircraft, idle power is defined as **no more than** 50 percent (50%) of full power

3.3 Normal engine adjustments may continue to be performed at or near gate positions or apron parking positions.

3.4 Tower communications will be treated as advisory when aircraft are in a "non-movement" area.

4. Run-ups at Barrier A must be conducted with the subject **engine** positioned at the **midpoint** of the wall, and the aircraft positioned parallel (i.e., heading East or West) to the wall, to obtain maximum effectiveness of the barrier.

4.1 Aircraft positioning may be adjusted up to **twenty** (20) degrees south or north from parallel for proper engine trim with respect to easterly or westerly winds. (See attached illustration, **Barrier A**).

4.2 In no case shall the engine test be conducted with the engine jet blast perpendicular to the barrier wall or the terminal building.

4.3 The Barrier A position is designed to accommodate aircraft with wingspans not exceeding 214 feet; or with tail-mounted engines not exceeding 22 feet in height.

4.4 The following aircraft are not permitted to conduct engine ran-ups at Barrier A: A330, A340, B747, B777, DC8, DC10, L1011 and MD11.

5. Run-ups at Barrier B must be conducted with the subject **engine positioned** at the **midpoint** of the parallel walls, and the **aircraft located between the parallel walls**, headed east or west. Wind permitting an easterly heading shall be used primarily. (See attached illustration, **Barrier B**).

5.1 In no case shall the engine test be conducted with the engine jet blast perpendicular to the barrier walls.

5.2 The Barrier B position is designed to accommodate aircraft in Airplane Design Group II (i.e., wingspan between 49 feet up to but not including 79 feet).

6. Run-ups at Barrier C must be conducted with the aircraft positioned parallel (i.e., heading East or West) to the wall, to obtain maximum effectiveness of the barrier. Aircraft in Design Group II

(wingspan between 49 feet up to but not including 79 feet) will position the nose wheel of the airplane on the northern most painted centerline and nose blocks. Aircraft in Design Group III (wingspan between 79 feet up to but not including 118 feet) will position the nose wheel of the airplane on the southern most painted centerline and nose blocks. In either case, if the aircraft is heading west, the nose wheel will stop on the western nose block and if the aircraft is heading east, the nose wheel will stop on the eastern nose block.

6.1 Aircraft positioning may be adjusted up to **twenty** (20) degrees south or north from parallel for proper engine trim with respect to easterly or westerly winds. (See attached illustration, **Barrier C**). Please note when adjusting the aircraft position, the wingtips shall remain clear of the taxilane object free line located 22 feet from the noise barrier wall.

6.2 In no case shall the engine test be conducted with the engine jet blast perpendicular to the barrier wall.

6.3 Barrier C is designed to accommodate aircraft no larger than Group III aircraft (wingspan up to but not including 118 feet). In addition, aircraft weighing greater than 150,000 pounds are not permitted to use Barrier C.

6.4 The following aircraft are not permitted to conduct engine run-ups at Barrier C: A300, A310, A330, A340, B757, B767, B747, B777, DC8, DC10, L1011 and MD11.

7. Air cargo aircraft larger than Design Group II requiring nighttime maintenance run-ups will follow the above procedures and use Noise Barrier A or C. Air cargo aircraft larger than Design Group III are not permitted to use Barrier C. In addition, air cargo aircraft weighing greater than 150,000 pounds are not permitted to use Barrier C.

8. Corporate and business jet aircraft operating at either the Lane Ramp or the Million Air Ramp may use either Noise Barriers A or B to perform nighttime maintenance run-ups.

9. All aircraft maintenance personnel shall maintain a nighttime (2200 - 0700 hours) run-up log, to record the run-up barrier utilized, orientation of aircraft (E or W), time/duration of each engine test, and power setting of each engine test. A copy of this log shall be sent monthly to the Airport Authority Noise Abatement Office [fax 238-7850]. (see Attachment 1)

9.1 The Airport Authority Noise Officer will collect and file the run-up logs to correlate and confirm noise complaints. The Airport Operations Coordinator (s) will monitor the run-up operations to ensure the policy is being followed.

9.2 The Airport Authority's permanent Noise and Flight Track Monitoring System will be utilized to measure noise levels, respond to complaints, and confirm the predicted noise levels are accurate.

9.3 The permanent noise monitoring program, conducted over a reasonable time frame, will be used to amend the engine run-up policy and procedures.

10. An evaluation of the engine run-up policy will be conducted by the Airport Authority annually.

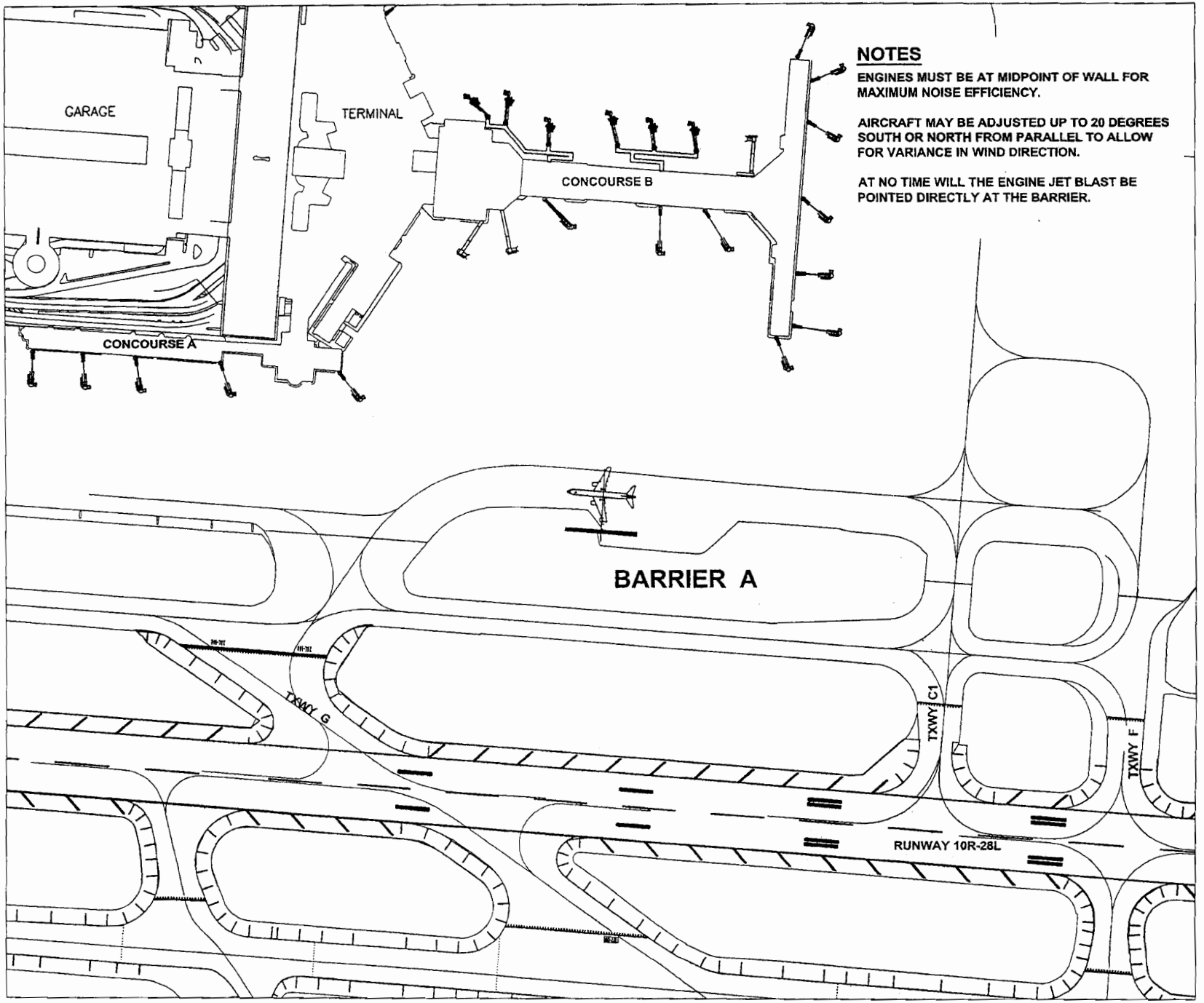
Attachment #1

PORT COLUMBUS NIGHTTIME (2200-0700) AIRCRAFT MAINTENANCE RUN-UP LOG

Airline: _____ **Month of:** _____

Notify Communications Center (238-4029)	Run-up Barrier	Date	Time & Duration	Aircraft Tail Number	Power Setting	Heading East or West

Fax to Columbus Regional Airport Authority Noise Abatement Office (238-7850)



NOTES

ENGINES MUST BE AT MIDPOINT OF WALL FOR MAXIMUM NOISE EFFICIENCY.

AIRCRAFT MAY BE ADJUSTED UP TO 20 DEGREES SOUTH OR NORTH FROM PARALLEL TO ALLOW FOR VARIANCE IN WIND DIRECTION.

AT NO TIME WILL THE ENGINE JET BLAST BE POINTED DIRECTLY AT THE BARRIER.

REVISIONS

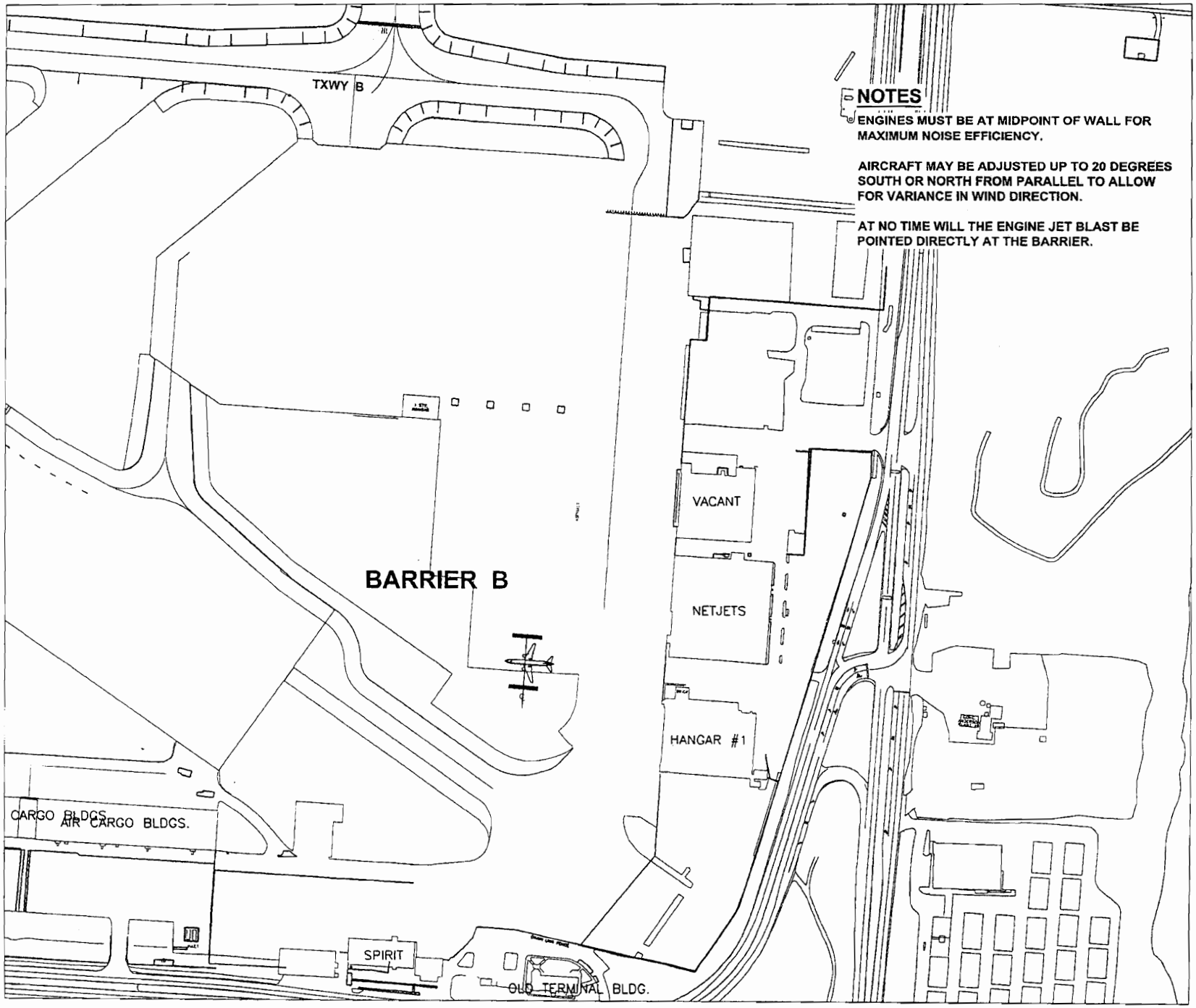
DATE	BY

SCALE: 1"=300'
DATE: 02/3/06
DRAWN BY: CS

PORT COLUMBUS INTERNATIONAL AIRPORT
SOUTH TERMINAL APRON
RUN-UP BARRIER A

COLUMBUS REGIONAL AIRPORT AUTHORITY
COLUMBUS, OHIO
PORT COLUMBUS INTERNATIONAL AIRPORT ROSSMOOR INTERNATIONAL AIRPORT BOLTON FIELD

SHEET NO.
1



NOTES

ENGINES MUST BE AT MIDPOINT OF WALL FOR MAXIMUM NOISE EFFICIENCY.

AIRCRAFT MAY BE ADJUSTED UP TO 20 DEGREES SOUTH OR NORTH FROM PARALLEL TO ALLOW FOR VARIANCE IN WIND DIRECTION.

AT NO TIME WILL THE ENGINE JET BLAST BE POINTED DIRECTLY AT THE BARRIER.

REVISIONS

DATE	BY

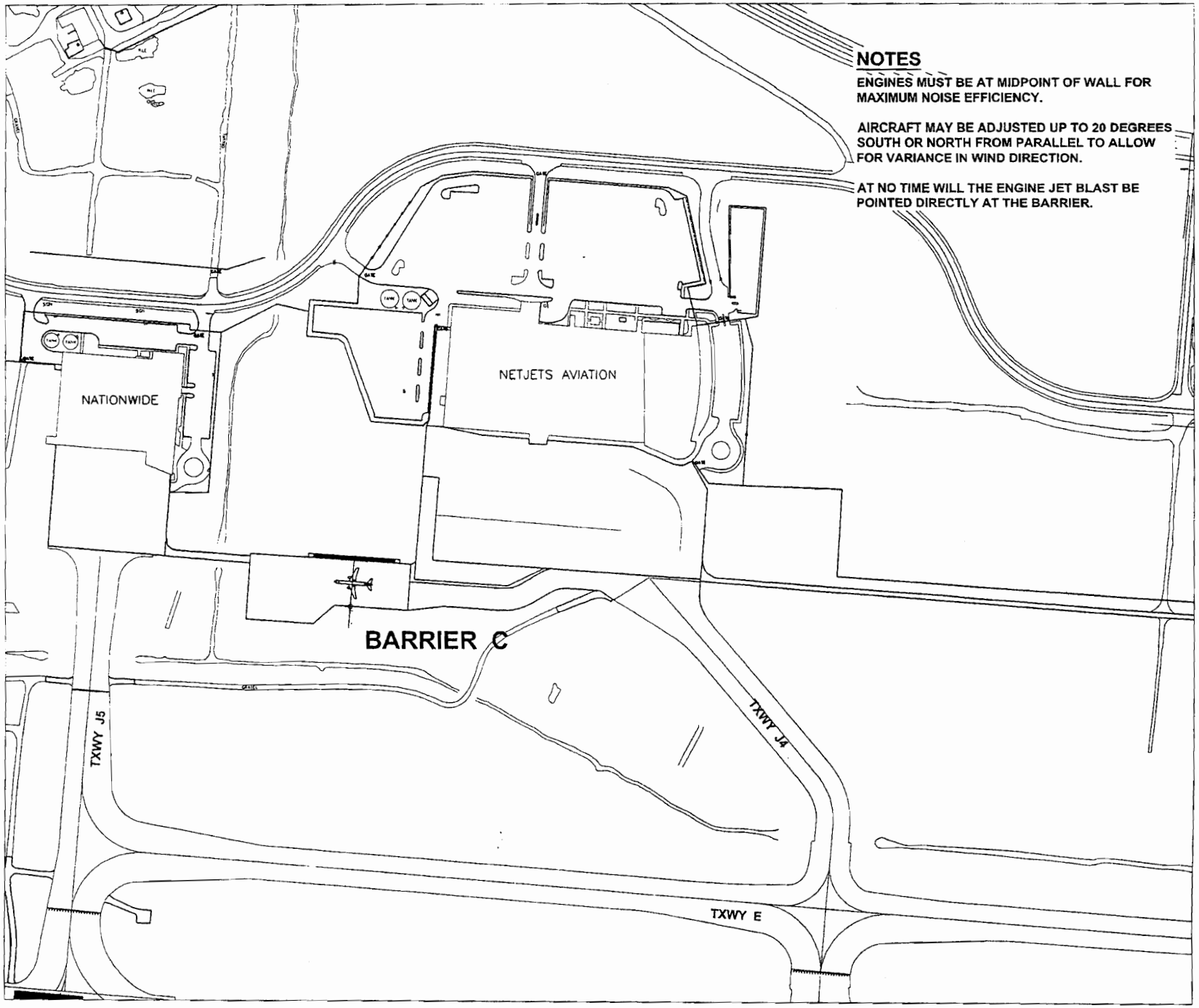
SCALE: 1"=300'
DATE: 02/3/06
DRAWN BY: CS

PORT COLUMBUS INTERNATIONAL AIRPORT
SOUTHEAST APRON
RUN-UP BARRIER B

COLUMBUS REGIONAL AIRPORT AUTHORITY
COLUMBUS, OHIO

PORT COLUMBUS INTERNATIONAL AIRPORT · ROSENBACHER INTERNATIONAL AIRPORT · BOLTON FIELD

SHEET NO.
2



NOTES

ENGINES MUST BE AT MIDPOINT OF WALL FOR MAXIMUM NOISE EFFICIENCY.

AIRCRAFT MAY BE ADJUSTED UP TO 20 DEGREES SOUTH OR NORTH FROM PARALLEL TO ALLOW FOR VARIANCE IN WIND DIRECTION.

AT NO TIME WILL THE ENGINE JET BLAST BE POINTED DIRECTLY AT THE BARRIER.

REVISIONS

DATE	BY

SCALE: 1"=300'
DATE: 02/3/06
DRAWN BY: CS

PORT COLUMBUS INTERNATIONAL AIRPORT
SOUTHWEST OF NETJETS RAMP
RUN-UP BARRIER C

COLUMBUS REGIONAL AIRPORT AUTHORITY
COLUMBUS, OHIO
PORT COLUMBUS INTERNATIONAL AIRPORT ROSENBACHER INTERNATIONAL AIRPORT BOLTON FIELD

SHEET NO.
3

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NOISE COMPATIBILITY PROGRAM ALTERNATIVE NA-Z

TITLE:	Implement Airport Operational Restrictions (Part 161).

BACKGROUND AND INTENT:	This alternative considers the potential for implementing airport access restrictions for noise abatement. These may include curfews or restrictions on aircraft types or groups. Any such action is subject to the provisions of Part 161, which requires extensive proof of benefits relative to costs prior to approval by the FAA. Typically, these types of studies have resulted in lawsuits and to date, none have been officially approved by the FAA.

BENEFITS:	These restrictions can resolve noise annoyance problems during the most sensitive periods or of the most annoying events.

DRAWBACKS:	Part 161 requires extensive additional evaluation, with little hope of approval, given the FAA's current stance on Part 161 actions.

COST TO IMPLEMENT:	A comprehensive Part 161 study would cost $3 to $5 million. Litigation could cost a similar amount.

EVALUATION METHOD:	Qualitative assessment

FINDINGS AND RECOMMENDATIONS:	Due to the high costs associated with conducting a Part 161 and the fact that the FAA has never officially approved a Part 161, the alternative is **NOT RECOMMENDED** for further evaluation.

NOISE ABATEMENT SCENARIOS

The alternatives identified for further evaluation cannot all be implemented at the same time due to recommendations that would conflict with each other. Furthermore, the combined effect of various alternatives will yield different levels of impacts. Therefore, the most promising alternatives were compiled into four NCP operating scenarios for further evaluation. Each of the NCP operating scenarios is briefly described below along with a discussion of their relative benefits and drawbacks.

Scenario 1 (NCP 1)

NCP Scenario 1 (NCP 1) includes four noise abatement alternatives:

- NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use a visual side step approach to Runway 28L.
- NA-E: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.
- NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately let 10 degrees before turning on course.
- NA-R: Renew efforts to maximize east flow (arrive and depart Runways 10L/10R).

NCP 1 decreased the number of housing units in the 65+ DNL noise exposure contour from the Future (2012) Baseline noise exposure contour by 228 housing units. In addition, NCP 1 decreased the number of housing units in the 60-65 DNL noise exposure contour by 447 housing units. Although there were decreases in the number of housing units in the 65+ DNL and 60-65 DNL noise exposure contours, NCP 1 was not selected as the preferred scenario due to NCP 2 having the fewest impacts overall (see **Table E-15**).

Table E-15
SCENARIO 1 HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**4,870**	**415**	**0**	**0**	**415**
Mitigated					
Sound Insulated	446	212	0	0	212
Easement	207	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,123	136	0	0	136
Mifflin Township	**12**	**57**	**0**	**0**	**57**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna	**155**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	4	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	151	0	0	0	0
Jefferson Township	**100**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	45	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	55	0	0	0	0
Total Housing Units	**5,137**	**472**	**0**	**0**	**472**
Population					
Total Population[@]	**12,688**	**1,166**	**0**	**0**	**1,166**
Noise-Sensitive Facilities					
Churches	32	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.

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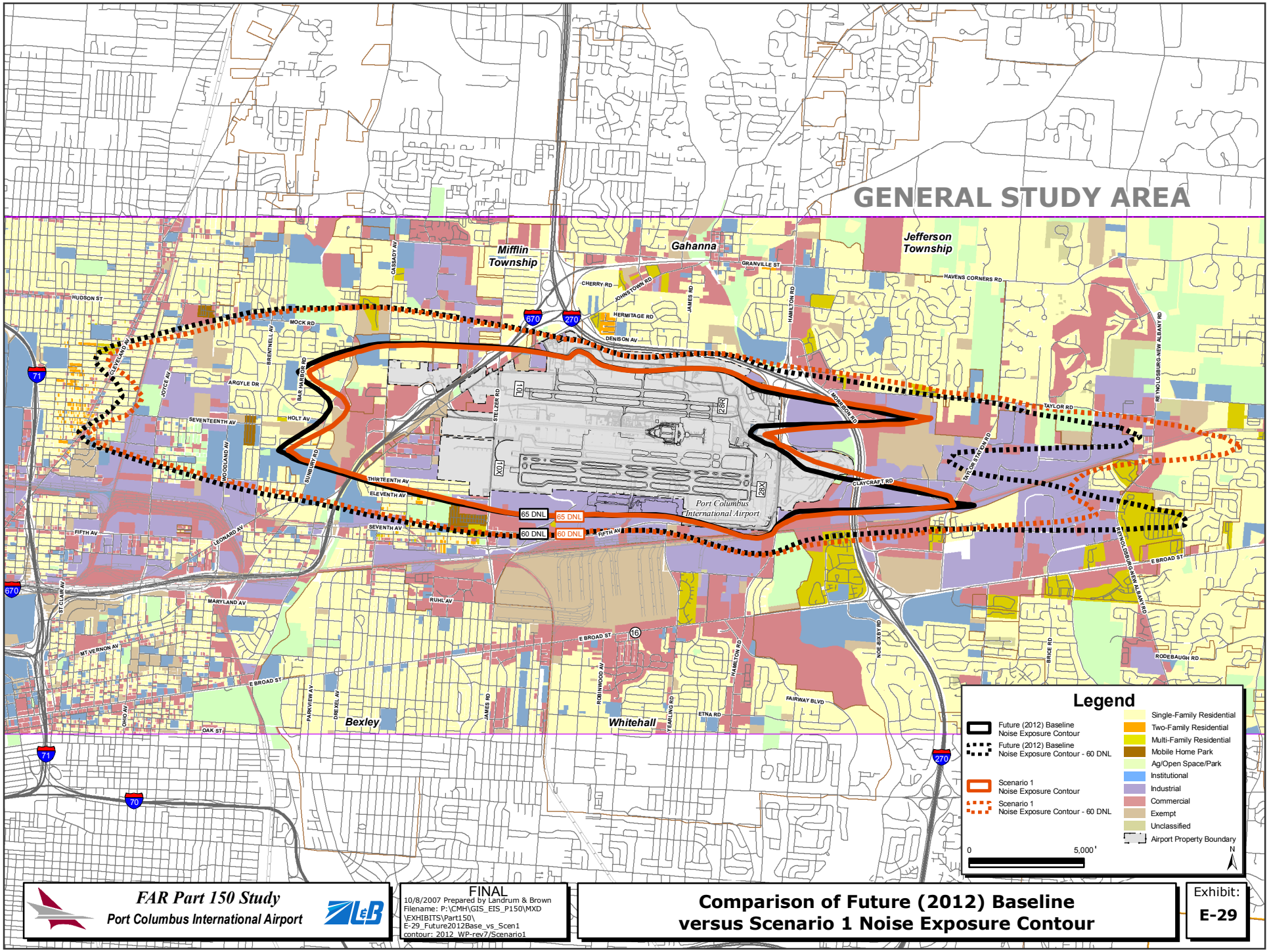


FAR Part 150 Study
Port Columbus International Airport

FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-29_Future2012Base_vs_Scen1 contour: 2012_WP-rev7/Scenario1

Comparison of Future (2012) Baseline versus Scenario 1 Noise Exposure Contour

Exhibit: **E-29**

Scenario 2 (NCP 2)

NCP Scenario 2 (NCP 2) includes three noise abatement alternatives:

- NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use a visual side step approach to Runway 28L.
- NA-E: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.
- NA-R: Renew efforts to maximize east flow (arrive and depart Runways 10L/10R).

NCP 2 decreased the number of housing units in the 65+ DNL noise exposure contour from the Future (2012) Baseline noise exposure contour by 228 housing units. In addition, NCP 2 decreased the number of housing units in the 60-65 DNL noise exposure contour by 469 housing units. Due to NCP 2 having the greatest reduction in the number of housing units impacted in both the 65+ and 60-65 DNL noise exposure contours and the smallest shift in noise, it was originally selected as the preferred scenario in the Part 150 Noise Compatibility Study (see **Table E-16**). However, in the comments received on the Draft document, several airlines expressed safety concerns with Alternative NA-D (see attachment at the end of this appendix). Due to these safety concerns Alternative NA-D was removed from consideration. Therefore, Scenario 4 is now the preferred scenario in the Part 150 Noise Compatibility Study.

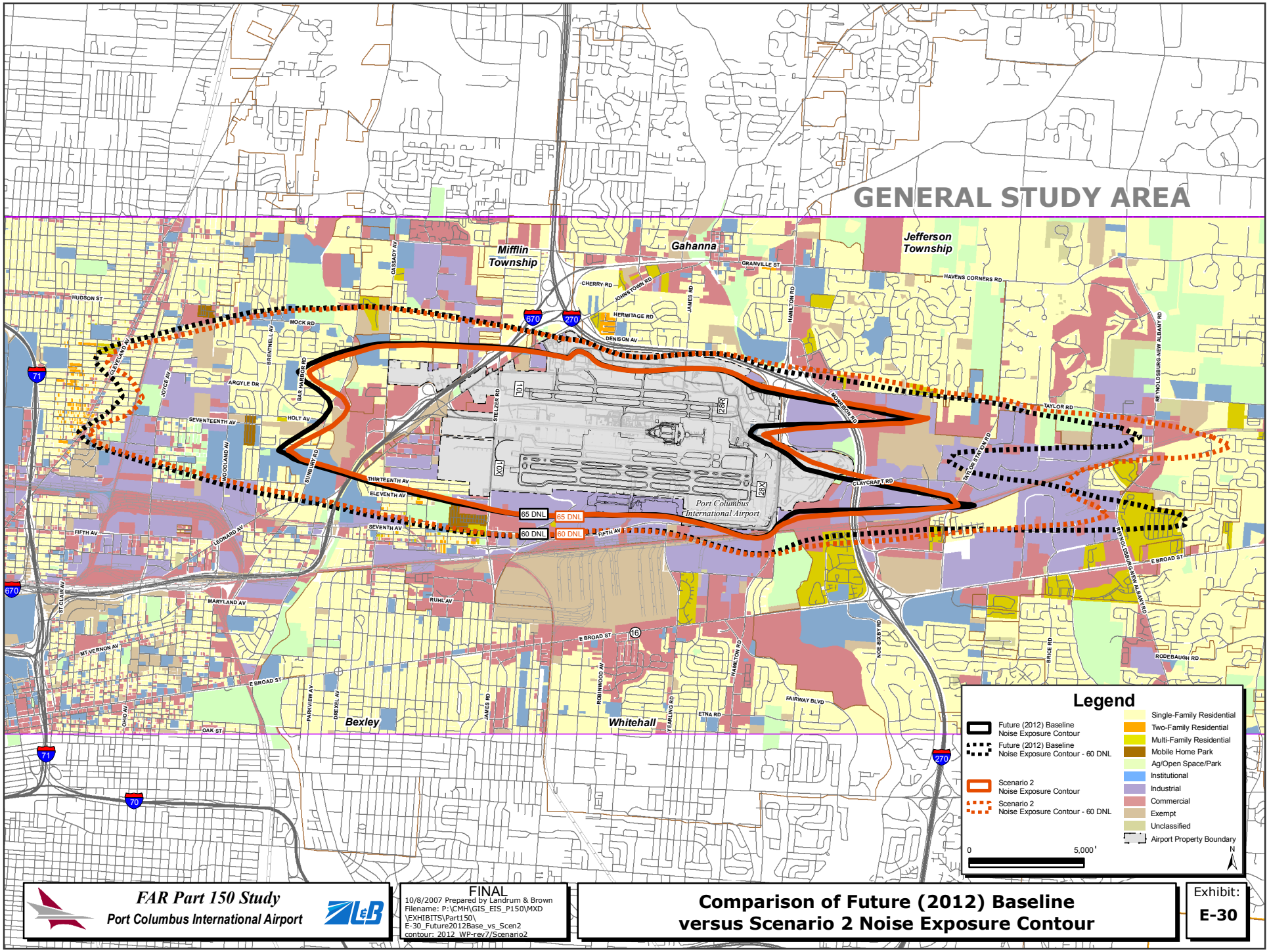
Table E-16
SCENARIO 2 HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**4,880**	**415**	**0**	**0**	**415**
Mitigated					
Sound Insulated	446	212	0	0	212
Easement	141	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,199	136	0	0	136
Mifflin Township	**12**	**57**	**0**	**0**	**57**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna	**152**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	4	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	148	0	0	0	0
Jefferson Township	**71**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	36	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	35	0	0	0	0
Total Housing Units	**5,115**	**472**	**0**	**0**	**472**
Population					
Total Population[@]	**12,634**	**1,166**	**0**	**0**	**1,166**
Noise-Sensitive Facilities					
Churches	32	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



FAR Part 150 Study
Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-30_Future2012Base_vs_Scen2 contour: 2012_WP-rev7/Scenario2

Comparison of Future (2012) Baseline versus Scenario 2 Noise Exposure Contour

Exhibit: **E-30**

Scenario 3 (NCP 3)

NCP Scenario 3 (NCP 3) includes three noise abatement alternatives. The following noise abatement alternatives included were included in NCP 3:

- NA-E: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.
- NA-R: Renew efforts to maximize east flow (arrive and depart Runways 10L/10R).
- NA-V: Implement head to head operations during calm winds at nighttime for all aircraft (includes a left 10-degree departure turn off of Runway 10R).

NCP 3 decreased the number of housing units in the 65+ DNL noise exposure contour from the Future (2012) Baseline noise exposure contour by 84 housing units. In addition, NCP 3 decreased the number of housing units in the 60-65 DNL noise exposure contour by 123 housing units. Although there were decreases in the number of housing units in the 65+ DNL and 60-65 DNL noise exposure contours, NCP 3 was not selected as the preferred scenario due to NCP 2 having the fewest impacts overall (See **Table E-17**).

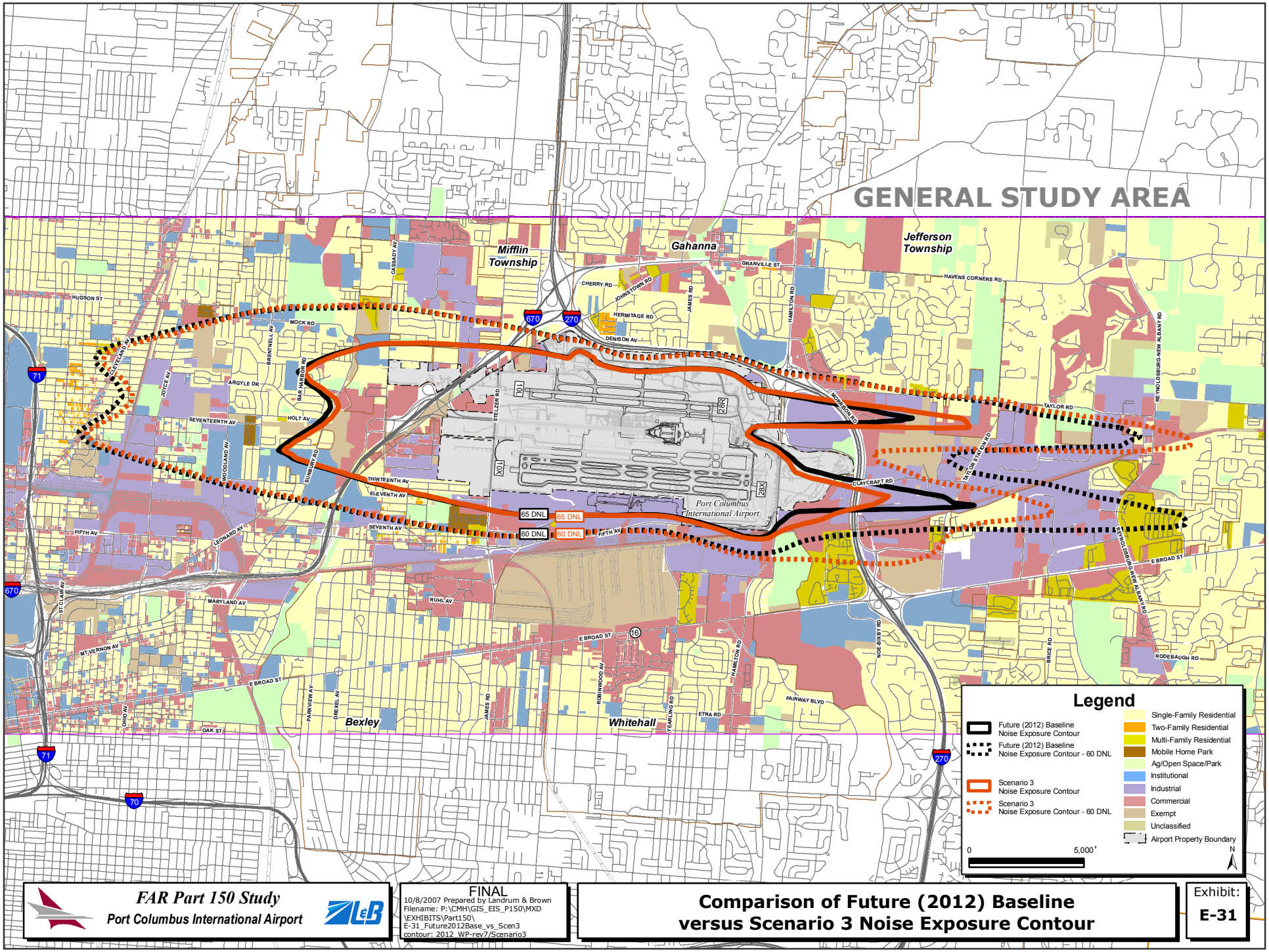
Table E-17
SCENARIO 3 HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,370**	**558**	**0**	**0**	**558**
Mitigated					
Sound Insulated	404	254	0	0	254
Easement	238	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	91	70	0	0	70
Not Previously Mitigated	4,637	234	0	0	234
Mifflin Township	**11**	**58**	**0**	**0**	**58**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	10	4	0	0	4
Gahanna	**52**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	50	0	0	0	0
Jefferson Township	**28**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	28	0	0	0	0
Total Housing Units	**5,461**	**616**	**0**	**0**	**616**
Population					
Total Population[@]	**13,489**	**1,522**	**0**	**0**	**1,522**
Noise-Sensitive Facilities					
Churches	36	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



FAR Part 150 Study
Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\E-31_Future2012Base_vs_Scen3 contour: 2012_WP-rev7/Scenario3

Comparison of Future (2012) Baseline versus Scenario 3 Noise Exposure Contour

Exhibit: **E-31**

Scenario 4 (NCP 4)

NCP Scenario 4 (NCP 4) includes two noise abatement alternatives. The following noise abatement alternatives included were included in NCP 4:

- NA-E: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.
- NA-R: Renew efforts to maximize east flow (arrive and depart Runways 10L/10R).

NCP 4 decreased the number of housing units in the 65+ DNL noise exposure contour from the Future (2012) Baseline noise exposure contour by 227 housing units. In addition, NCP 4 decreased the number of housing units in the 60-65 DNL noise exposure contour by 164 housing units (See **Table E-18**). After comments were received from several airlines expressing safety concerns with Alternative NA-D, Scenario 4 was selected as the preferred scenario.

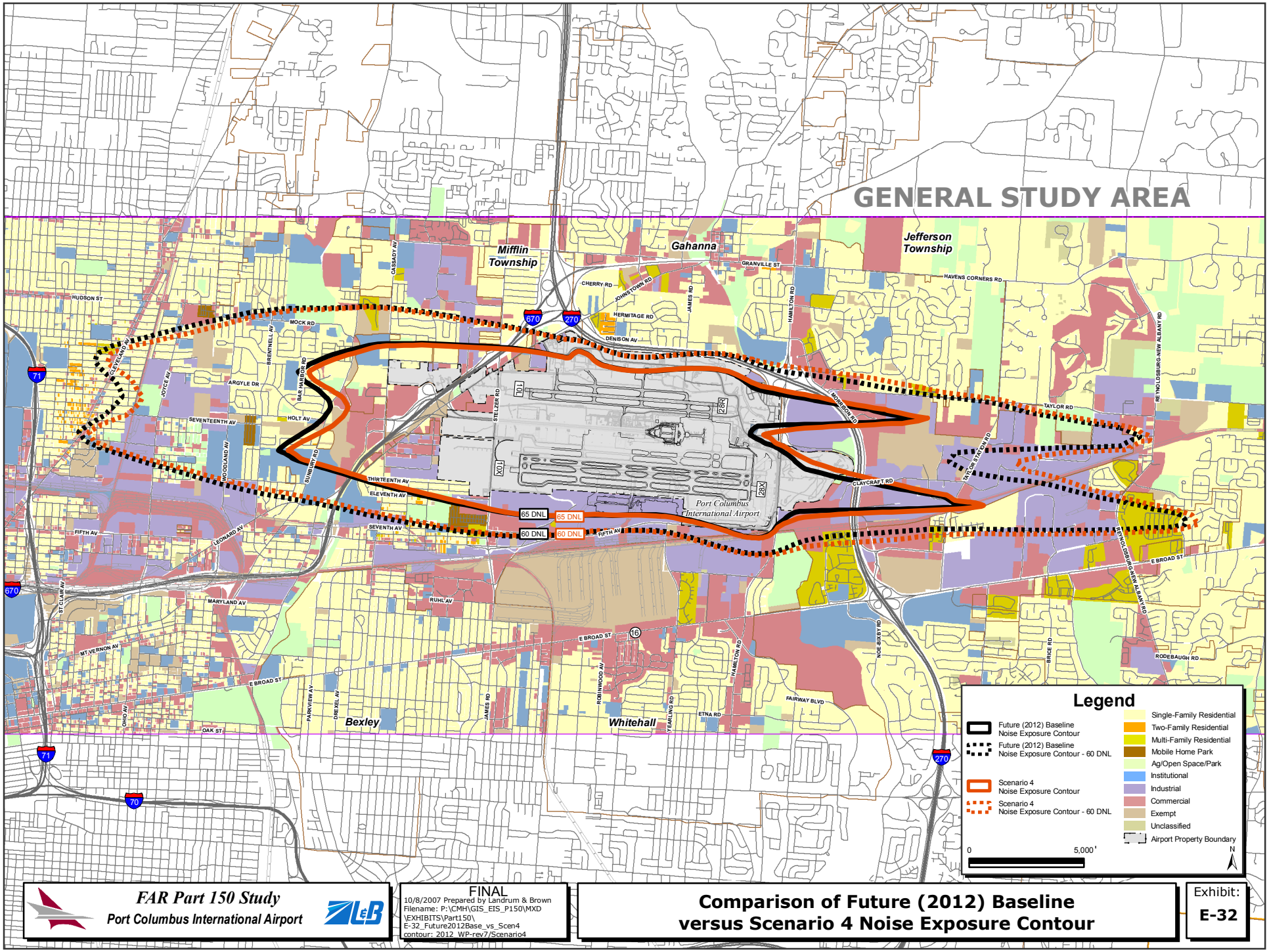
Table E-18
SCENARIO 4 HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65* DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,233**	**415**	**0**	**0**	**415**
Mitigated					
Sound Insulated	446	212	0	0	212
Easement	471	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,222	136	0	0	136
Mifflin Township	**12**	**57**	**0**	**0**	**57**
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna	**148**	**1**	**0**	**0**	**1**
Mitigated					
Sound Insulated	3	1	0	0	1
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	145	0	0	0	0
Jefferson Township	**27**	**0**	**0**	**0**	**0**
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	4	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	23	0	0	0	0
Total Housing Units	**5,420**	**473**	**0**	**0**	**473**
Population					
Total Population[@]	**13,387**	**1,168**	**0**	**0**	**1,168**
Noise-Sensitive Facilities					
Churches	32	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

@ Population numbers are estimates based on the number of housing units.

Source: Landrum & Brown, 2007.



FAR Part 150 Study
Port Columbus International Airport

FINAL
10/8/2007 Prepared by Landrum & Brown
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Comparison of Future (2012) Baseline versus Scenario 4 Noise Exposure Contour

Exhibit: **E-32**

Airline Coordination

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COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

July 9, 2007

Dear Chief Pilot/Director of Flight Operations:

The Columbus Regional Airport Authority (CRAA) is in the process of preparing an update to the Part 150 Noise Compatibility Study for the Port Columbus International Airport (CMH). Part 150 Studies in the past have recommended many of the arrival and departure procedures in place today at CMH. This study is nearing completion and recommendations have been developed that will modify some of the current arrival and departure procedures. All of the recommendations discussed below have been developed in conjunction with the CMH ATCT management and staff. Their input has allowed us to evaluate alternative flight procedures and to settle on options that we believe are feasible and safe. We would like to take this opportunity to update you on the progress of the study and to solicit your input on the proposed modifications to the arrival and departure procedures. The following lists the new arrival and departure procedures being considered for CMH:

1. Renew efforts to maximize east flow (arrivals and departures on Runways 10R/L) during calm wind conditions. Currently, Runways 10R/L are the preferred runway during calm wind conditions to help reduce noise impacts to the more heavily populated areas to the west of the airport. An assessment of the runway use at CMH for the last two years found that the airport operates in east flow approximately 25 percent of the time. An analysis of prevailing wind patterns indicates that the percentage of east flow could be higher. The CRAA is working with the CMH ATCT to identify ways to maximize the use of east flow and has already had some success. Your input on opportunities to increase the use of east flow would be greatly appreciated.
2. Implement a 15-degree right turn for departures on Runway 28R when traffic warrants. The CMH ATCT requested that the CRAA assess the possibility of providing a 15-degree divergent departure heading in order to increase efficiency and capacity during busy departure periods at the airport. The study looked at a number of different options off of each runway end and identified Runway 28R as the best option because in addition to providing capacity benefits, it reduced impacts within the 65 DNL noise contour. Exhibit 1 shows the general location of the 15-degree departure corridor.
3. Implement a visual side-step approach to Runway 28L during the nighttime hours (10:00 p.m. to 7:00 a.m.). During the nighttime, the CRAA recognizes that aircraft noise is generally more disruptive to people living near the airport. An analysis of nighttime flight procedures and surrounding land uses found that a corridor east of the airport existed where a nighttime arrival corridor could be located. This procedure would be a published visual approach that CMH ATCT would direct pilots to use when operating conditions allowed. We have worked with the CMH ATCT in developing the location of the visual approach.

Port Columbus International Airport
4600 International Gateway
Columbus, Ohio 43219
Phone: 614-239-4000
Fax: 614-239-4066

Rickenbacker International Airport
7161 Second Street
Columbus, Ohio 43217
Phone: 614-491-1401
Fax: 614-491-0662

Bolton Field Airport
2000 Norton Road
Columbus, Ohio 43228
Phone: 614-851-9900
Fax: 614-851-8959

However, we understand that CMH is only half of the equation when attempting to implement this type of procedure. Quite frankly, we need pilot and airline support for this procedure to be effectively implemented. Please review the Exhibit 2 and provide us with any comments/suggestions that you may have.

The final issue that we would like your input on is regarding the current nighttime procedures. The CMH ATCT Tower Order identifies Runway 10R/28L as the preferred runway for jet operations during the nighttime (10:00 p.m. to 7:00 a.m.). This procedure was adopted because of the proximity of the communities north and northeast of the airport to Runway 10L/28R. One exception to this operation is for jet pilots that request Runway 10L/28R. In these cases, the CMH ATCT is instructed to respond that the use of Runway 10R/28L is preferred for noise abatement and that the pilot is to give his intentions. If the pilot continues to request Runway 10L/28R, then the request will be granted. Given the layout of the airfield and the location of the terminal at CMH, it became routine for aircraft with an origin/destination on the north side of the terminal or in the north airfield to make this request. In response, since 2004 an ATCT test has been in place that allows the CMH ATCT to issue the north runway as necessary. This has generally been implemented for those aircraft that routinely requested the north runway. The benefits of the test include more efficient ground movement and less controller/pilot communication regarding runway assignment. The drawback of the test is use of the north runway during the nighttime hours.

The CRAA is considering ending the ATCT test and reverting back to the requirements of the CMH ATCT Tower Order. Again, this would not preclude the use of Runway 10L/28R during the nighttime, but would require pilots to specifically ask the CMH ATCT for the runway assignment. Your input on the need to continue or end the ATCT test will assist the CRAA in making this decision.

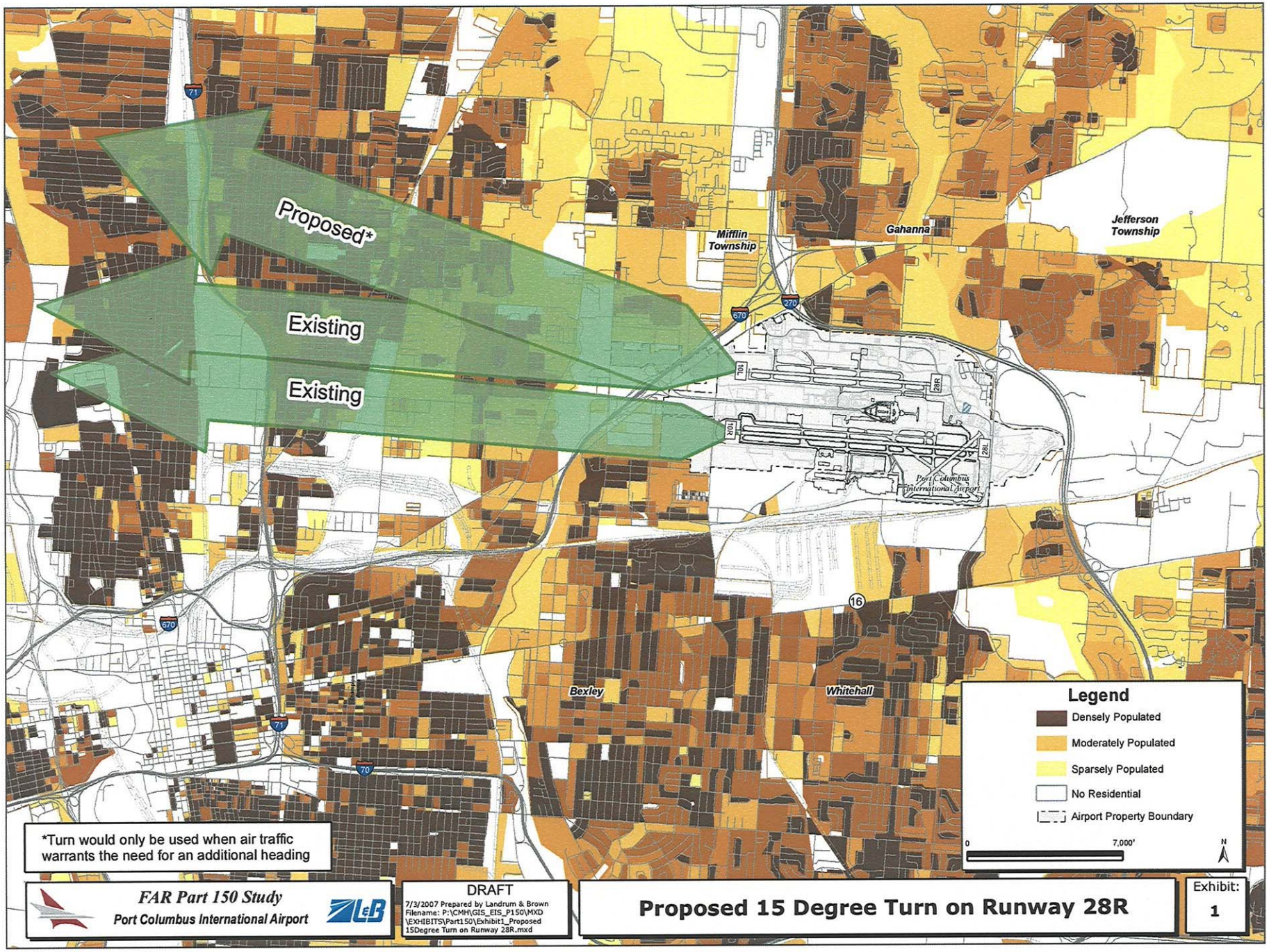
Thank you for your input into these important issues. Please feel free to give me a call at (614) 239-4063 with any questions/concerns you may have regarding the current procedures and the Part 150 Study recommendations. We would appreciate receiving any comments you may have by August 10, 2007.

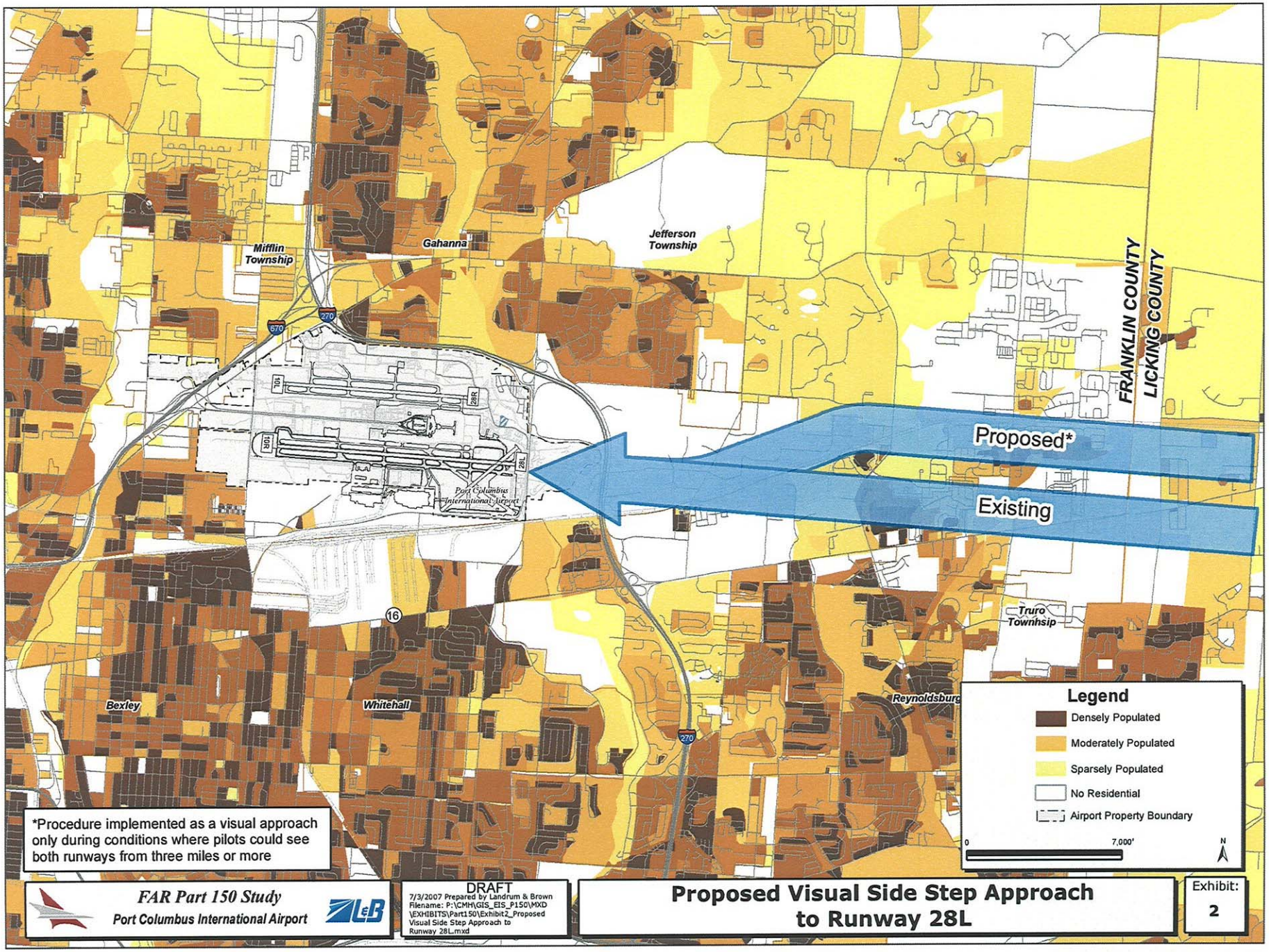
Sincerely,

Dw Wall

David E. Wall, A.A.E.
Capital Program Manager

CC: Angela Newland, A.A.E., CRAA
Bernie Meleski, CRAA
Chris Lenfest, CMH ATCT
Rob Adams, L&B


Proposed*
Existing
Existing
Mifflin Township
Gahanna
Jefferson Township
Bexley
Whitehall
Port Columbus International Airport
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Turn would only be used when air traffic warrants the need for an additional heading
FAR Part 150 Study
Port Columbus International Airport
DRAFT
7/3/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\Exhibit1_Proposed 15Degree Turn on Runway 28R.mxd
Proposed 15 Degree Turn on Runway 28R
Exhibit:
1


Mifflin Township
Gahanna
Jefferson Township
FRANKLIN COUNTY
LICKING COUNTY
Proposed*
Existing
Port Columbus International Airport
Truro Townhsip
Reynoldsburg
Bexley
Whitehall
Legend
Densely Populated
Moderately Populated
Sparsely Populated
No Residential
Airport Property Boundary
0
7,000'
N
*Procedure implemented as a visual approach only during conditions where pilots could see both runways from three miles or more
FAR Part 150 Study
Port Columbus International Airport
DRAFT
7/3/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\Exhibit2_Proposed Visual Side Step Approach to Runway 28L.mxd
Proposed Visual Side Step Approach to Runway 28L
Exhibit:
2

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

July 9, 2007

Mr. Rodney Zankl
Regional Manager
Midwest Connect
1190 W Rawson Ave
Oak Creek, WI 53154

Dear Mr. Zankl:

The Columbus Regional Airport Authority (CRAA) is in the process of preparing an update to the Part 150 Noise Compatibility Study for the Port Columbus International Airport (CMH). Part 150 Studies in the past have recommended many of the arrival and departure procedures in place today at CMH. This study is nearing completion and recommendations have been developed that will modify some of the current arrival and departure procedures. All of the recommendations discussed below have been developed in conjunction with the CMH ATCT management and staff. Their input has allowed us to evaluate alternative flight procedures and to settle on options that we believe are feasible and safe. We would like to take this opportunity to update you on the progress of the study and to solicit input from your Chief Pilot/Director of Flight Operations on the proposed modifications to the arrival and departure procedures. The following lists a brief summary of the new arrival and departure procedures being considered for CMH:

1. Renew efforts to maximize east flow (arrivals and departures on Runways 10R/L) during calm wind conditions. Currently, Runways 10R/L are the preferred runway during calm wind conditions to help reduce noise impacts to the more heavily populated areas to the west of the airport. The CRAA is working with the CMH ATCT to identify ways to maximize the use of east flow and has already had some success.
2. Implement a 15-degree right turn for departures on Runway 28R when traffic warrants. The CMH ATCT requested that the CRAA assess the possibility of providing a 15-degree divergent departure heading in order to increase efficiency and capacity during busy departure periods at the airport. Exhibit 1 shows the general location of the 15-degree departure corridor.
3. Implement a visual side-step approach to Runway 28L during the nighttime hours (10:00 p.m. to 7:00 a.m.). During the nighttime, the CRAA recognizes that aircraft noise is generally more disruptive to people living near the airport. An analysis of nighttime flight procedures and surrounding land uses found that a corridor east of the airport existed where a nighttime arrival corridor could be located. We have worked with the CMH ATCT in developing the location of the visual approach. However, we understand that CMH is only half of the equation when attempting to implement this type of procedure. Quite frankly, we need pilot and airline support for this procedure to be effectively implemented. Exhibit 2 depicts the proposed side-step approach.

Port Columbus International Airport
4600 International Gateway
Columbus, Ohio 43219
Phone: 614-239-4000
Fax: 614-239-4066

Rickenbacker International Airport
7161 Second Street
Columbus, Ohio 43217
Phone: 614-491-1401
Fax: 614-491-0662

Bolton Field Airport
2000 Norton Road
Columbus, Ohio 43228
Phone: 614-851-9900
Fax: 614-851-8959

The final issue we are asking input from Chief Pilots/Director of Flight Operations on is regarding the current nighttime procedures. The CMH ATCT Tower Order identifies Runway 10R/28L as the preferred runway for jet operations during the nighttime (10:00 p.m. to 7:00 a.m.). This procedure was adopted because of the proximity of the communities north and northeast of the airport to Runway 10L/28R. One exception to this operation is for jet pilots that request Runway 10L/28R. In these cases, the CMH ATCT is instructed to respond that the use of Runway 10R/28L is preferred for noise abatement and that the pilot is to give his intentions. If the pilot continues to request Runway 10L/28R, then the request will be granted. Given the layout of the airfield and the location of the terminal at CMH, it became routine for aircraft with an origin/destination on the north side of the terminal or in the north airfield to make this request. In response, since 2004 an ATCT test has been in place that allows the CMH ATCT to issue the north runway as necessary. This has generally been implemented for those aircraft that routinely requested the north runway. The benefits of the test include more efficient ground movement and less controller/pilot communication regarding runway assignment. The drawback of the test is use of the north runway during the nighttime hours.

The CRAA is considering ending the ATCT test and reverting back to the requirements of the CMH ATCT Tower Order. Again, this would not preclude the use of Runway 10L/28R during the nighttime, but would require pilots to specifically ask the CMH ATCT for the runway assignment. Your input on the need to continue or end the ATCT test will assist the CRAA in making this decision.

I have enclosed an envelope which I ask be delivered to your Chief Pilot/Director of Flight Operations for review. The envelope contains a more detailed explanation of the new arrival and departure procedures being considered for CMH, along with the same exhibits enclosed with your letter.

Thank you in advance for your assistance. Please feel free to give me a call at (614) 239-4063 with any questions or concerns you may have.

Sincerely,

David E. Wall, A.A.E.
Capital Program Manager

cc: Angela Newland, A.A.E., CRAA
Bernie Meleski, CRAA
Chris Lenfest, CMH ATCT
Rob Adams, L&B

Flight Operations, HQSFO
1600 Smith Street
Houston TX 77002
Tel 713 324 8447
Fax 713 324 8540
continental.com

To: David Wall, A.A.E.
Columbus Regional Airport Authority

Date: September 14, 2007

Subject: Request for Comments – Noise Abatement Procedures at Port Columbus International Airport

David,

Having read your proposal on changes to the arrival and departure procedures at Port Columbus International Airport, Continental Airlines has the following comments to offer:

1. After a preliminary look at obstacles, Continental has no objection for the 15 degree right turn for departures on Runway 28R. Keep in mind that a turn cannot commence prior to 400' AGL based on our Aircraft Flight Manual (AFM). This would also be subject to change if an obstacle was to be built in the flight path of this heading as it could result in a payload penalty.
2. Continental would like to advise against the visual side-step approach to Runway 28L. We feel a visual, hand-flown, side-step maneuver during nighttime hours would lower the level of safety in this critical phase of flight. Furthermore, based on current equipment we fly into CMH, we would not object to landing on 28R. We would prefer the pilots expect the straight in approach for 28R and have the option to request 28L if operational necessity (weight or MELs) requires it. Keep in mind that during increment weather that might affect landing distance the use of 28L may be necessary.

I will also note that Continental Airlines is an environmentally friendly airline sensitive to both noise and the emissions footprint we cause. While we are happy to use 28R to reduce the noise caused during sensitive nighttime hours, we hope this will not cause long delays in taxi time from the North side of the airport to the gate on the South side.

Continental has a modern fleet of aircraft with some impressive capabilities; there may be some possibilities of leveraging an RNAV visual approach that will allow the Flight Management Computer (FMC) to assist the pilots with a more complicated procedure to the runway without reducing the level of safety. I would be glad to discuss this option in more detail if you feel necessary.

Regards,

Ronald Renk
Manager, Flight Technologies

st for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airpor

-----Original Message-----
From: George C Velguth [mailto:George.Velguth@midwestairlines.com]
Sent: Thursday, September 27, 2007 3:07 PM
To: David Wall
Subject: Re: Request for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airport

Dear Mr. Wall:

The diagram you provided suggests that the proposed visual side-step maneuver associated with CMH's runway 28L will be accomplished prior to the final approach segmentt, perhaps in level flight. If so, this differs from most side-step maneuvers which are conducted at relatively low altitude during final approach. Skyway Airlines has no objection to the maneuver as depicted in the provided diagram.

However, Skyway Airlines is, in general, not in favor of typical visual side-step maneuvers. Side-step maneuvers may undermine the stabilized approach philosophy, require flightcrews to choose between re-selecting approach frequencies late in the approach and landing without instrument approach back-up, add unnecessarily to pilot workload during a critical phase of flight, introduce unexpected, potentially uncomfortable or alarming forces to the passenger cabin and, particularly during nighttime, must be performed at a time when the likelihood of spatial disorientation is perhaps greater than during any other phase of operation. Consequently, it is the position of Skyway Airlines that side-step maneuvers should be executed only when operationally necessary.

The proposal for a side-step maneuver at CMH, if executed during the final approach segment, is of particular concern, given the offset between the thresholds of the approach and landing runways. Because the threshold of runway 28L is at all times closer to approaching aircraft than the threshold of 28R, aircraft side-stepping from the 28R final approach course will likely arrive at the 28L final approach course above-glideslope. This would require the execution of an abnormally-steep descent if landing is to be accomplished within the touchdown zone.

Skyway will authorize a side-step maneuver when approaching runway 28L at CMH, but only when meteorological and other conditions permit the maneuver to be completed prior to reaching 1000' HAT on the landing runway, and when the maneuver can be accomplished without use of an abnormally-steep descent.

Sincerely,
George Velguth
Chief Pilot
Skyway Airlines, Inc.
(414) 294-6237 o
(414) 213-8532 m

|---------+---------------------------->
	"David Wall"
	<DWall@ColumbusAi
	rports.com>
	09/04/2007 07:15
	AM
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st for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airpor

To: <george.velguth@midwestairlines.com>
cc: "David Whitaker" <DWhitaker@ColumbusAirports.com>
Subject: Request for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airport

Dear Mr. Velguth:

The Columbus Regional Airport Authority (CRAA) is in the process of completing an update to the Part 150 Noise Compatibility Study for the Port Columbus International Airport (CMH). Part 150 Studies in the past have recommended many of the arrival and departure procedures in place today at CMH. This study is nearing completion and recommendations have been developed that will modify some of the current arrival and departure procedures.

On July 9, 2007, I mailed the attached letters to Rodney Zankl (attached files "Midwest Connect.pdf") and requested Mr. Zankl forward the enclosed letter (attached file "Letters to Chief Pilots Director of Flight Operations.pdf") which outlines some proposed changes to our noise abatement procedures. In the letter, we asked for any comments you may have regarding the proposed changes. I have heard back from only one airline, and wanted to confirm you received the letter.

I would very much appreciate hearing from you to confirm you received the letter, and if you have any comments regarding the proposed changes.
As I said above, we are in the final stages of completing the update and I would appreciate receiving your response by September 14, 2007.

If you have any questions, please e-mail me at dwall@columbusairports.com, or call me at (614) 239-4063.

Sincerely,
Dave Wall

David E. Wall, A.A.E.
Capital Program Manager
Columbus Regional Airport Authority
4600 International Gateway
Columbus, OH 43219
(614) 239-4063
(614) 238-7850 fax
dwall@ColumbusAirports.com

(See attached file: Letters to Chief Pilots Director of Flight Operations.pdf)(See attached file: Midwest Connect.pdf)

t for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airpor

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From: Fuller, David [mailto:David.Fuller@jetblue.com]
Sent: Tuesday, September 11, 2007 6:55 PM
To: David Wall
Cc: David Whitaker; Christopher.lenfest@faa.gov; Dodelin, George; Costello, Kevin; Daly, John
Subject: RE: Request for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airport

Dear Mr. Wall,

JetBlue appreciates the opportunity to comment on the proposed procedures. We have no significant objections to any proposals, save the proposed side-step maneuver at night.

Being that it will be a published visual maneuver, that lessens our concerns, but it will be difficult, if not impossible, for us to drive compliance by our pilots as night conditions and a side-step maneuver will make it large situational. Side-step maneuvers bring a certain amount of risk, particularly at night. While not unmanageable, we would suggest that a GPS or, ideally, an RNP procedure be developed in lieu of a visual procedure. Either procedure would allow this maneuver to be followed consistently (provided it meets regulatory criteria) and to lower minima, thus not limiting it use to night time conditions. Additionally, an RNP approach would create a smaller, more exact noise footprint to much lower minima. Thus, the airport would be able to meet its obligations as a good neighbor even more fully while maintaining a larger margin of safety. Not all carriers can currently do RNP approaches (currently, only our A320 fleet is able to do them) but over time, all air carriers are likely to seek approval.

Please feel free to contact me should you have any further questions or concerns.

Thank you,

David Fuller

David Fuller

Director Flight Operations

JetBlue Airways

(718) 709-3047 (o)

t for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airpor

(646) 244-6584 (c)

From: David Wall [mailto:DWall@ColumbusAirports.com]
Sent: Tuesday, August 28, 2007 2:30 PM
To: Fuller, David
Cc: David Whitaker
Subject: Request for Comments to Proposed Changes to Noise Abatement Procedures at Port Columbus International Airport

Dear Mr. Fuller:

Thank you for taking the time to leave me a voicemail regarding your concerns for the potential side-step maneuver for noise abatement procedures at Port Columbus International Airport.

On July 9, 2007, I mailed the attached letters to your Real Estate Representative (attached files "JetBlue.pdf") and requested they forward the enclosed letter (attached file "Letters to Chief Pilots Director of Flight Operations.pdf") which outlines some proposed changes to our noise abatement procedures. In the letter, we asked for any comments you may have regarding the proposed changes.

To date, you are the only airline that I've heard from, so I am contacting each airline's Chief Pilot or Director of Flight Operations to confirm they have received the letter, and to ask for written comments. I would very much appreciate it if you would please forward your comments to me in writing. Comments by e-mail are fine. We are in the final stages of completing the update and I would appreciate receiving your response by September 14, 2007.

If you have any questions, please e-mail me at dwall@columbusairports.com, or call me at (614) 239-4063.

Sincerely,

Dave Wall

_____

David E. Wall, A.A.E.

Capital Program Manager

Columbus Regional Airport Authority

4600 International Gateway

Columbus, OH 43219

(614) 239-4063

(614) 238-7850 fax

dwall@ColumbusAirports.com

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

October 10, 2007

Ms. Katherine Jones
Community Planner
Federal Aviation Administration
Detroit Airports District Office
11677 South Wayne Road
Suite 107
Romulus, MI 48174

Mr. Robert Adams
Managing Director
Landrum & Brown
11279 Cornell Park Drive
Cincinnati, OH 45242

RE: Noise Compatibility Program Update
Port Columbus International Airport
Proposed Side Step Noise Abatement Procedure

Dear Katy and Rob:

This letter formally withdraws Noise Compatibility Program Measure NA-7 from the Part 150 Noise Compatibility Program Update and Environmental Impact Statement for the replacement runway and terminal development at Port Columbus International Airport.

We have consulted the airlines serving Port Columbus and requested their opinion on the proposed noise abatement procedure for nighttime arrivals performing a visual side step approach to Runway 28L. We have received letters from Continental Airlines, Midwest Airlines, and JetBlue Airways voicing concern and advising against the implementation of the procedure. The common concern raised by the airlines is a reduction in safety due to destabilization of the aircraft during the final approach phase of flight.

We support the airlines in their efforts to maintain safe operations and respectfully request Measure NA-7 be removed from the Part 150 and EIS. If you have any questions, please call Dave Wall at (614) 239-4063.

Sincerely,

Elaine

Elaine Roberts, A.A.E.
President & CEO

Cc: Angela Newland, A.A.E.
Bernie Meleski
David Wall, A.A.E.

Port Columbus International Airport
4600 International Gateway
Columbus, Ohio 43219
Phone: 614-239-4000
Fax: 614-239-4066

Rickenbacker International Airport
7161 Second Street
Columbus, Ohio 43217
Phone: 614-491-1401
Fax: 614-491-0662

Bolton Field Airport
2000 Norton Road
Columbus, Ohio 43228
Phone: 614-851-9900
Fax: 614-851-8959

APPENDIX F
LAND USE ALTERNATIVES

The subsequent pages provide information on the current land use management and mitigation measures from the previous Noise Compatibility Plan (NCP) and an additional measure that was considered for inclusion in the Updated Part 150 NCP. The implementation status of the current measures was determined and updates were recommended where appropriate. The proposed measure was evaluated for the anticipated benefits and costs associated with its implementation. The measures were reviewed with the membership of the Planning Advisory Committee (PAC). The local planning professionals were invited to meet with the consultant if they had any questions or concerns. Copies of all of the materials that were sent are located in Appendix G, *Public Involvement*.

Based upon the comments received during the PAC meetings and the consultant's experience with the implementation of similar measures implemented at numerous airports throughout the U.S., recommendations for the acceptance, update or complete withdrawal of each measure were presented to the PAC prior to the development of the final recommended NCP.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-1 (CURRENTLY APPROVED MEASURE)

Description: Offer a program for noise insulation of noncompatible structures for noncompatible residences within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map, with program implementation in exchange for an avigation easement.

Status: This measure was implemented. The boundary was updated based on the 2001 NEM Update. With the completion of Phase X in 2007, the CRAA has sound insulated 702 homes.

Recommendation: Continue measure with modification of program boundary based on Future (2012) NCP. Additional 310 housing units would be eligible for sound insulation (85 are currently eligible). Total cost would be $10,850,000 based on $35,000 per housing unit. See Alternative LU-C regarding the additional homes to be included.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-2 (CURRENTLY APPROVED MEASURE)

Description: Offer a program for noise insulation of noncompatible structures for noncompatible churches within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map, with program implementation in exchange for an avigation easement.

Status: This measure was implemented. There are no churches located within the Future (2012) NCP.

Recommendation: Continue approved measure LU-2.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-3 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from the City of Columbus and Franklin County to amend their Land Use Compatibility Standards to achieve the level of compatibility identified in the recommended Land Use Compatibility Guidelines.

Status: The measure was partially implemented. The recommended guidelines called for restrictions on certain land uses within the AEO subdistrict boundaries. In some cases the jurisdictions have adopted the recommedations for land uses within AEO subdistricts. However, in other cases the guidelines adopted are not as strict as the original recommendation.

Recommendation: Continue approved measure LU-3.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-4 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from the City of Columbus and Franklin County to amend the boundaries of the Airport Environs Overlay (AEO) District to correspond to the DNL 60 dB and greater noise contours.

Status: This measure was not implemented. Both the City of Columbus and Franklin County set the AEO boundary at the 65 DNL contour.

Recommendation: Continue measure with modification to include proposed Airport Land Use Management District (ALUMD). See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-5 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from Franklin County to amend the Franklin County Zoning Resolution, Section 660.07, Avigation Easement, to require applicants for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport.

Status: This measure was partially implemented. Section 660.07 requires conveyance of avigation easements for variance or conditional use permits only.

Recommendation: Modify approved measure LU-5 to include Gahanna & Jefferson Township.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-6 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from Jefferson Township and the City of Gahanna to adopt the Airport Environs Overlay (AEO) District as part of their official zoning regulations.

Status: This measure was not implemented.

Recommendation: Continue measure with modification to include proposed Airport Land Use Management District (ALUMD). See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-7 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the Airport Environs Overlay (AEO) District.

Status: This measure was not implemented.

Recommendation: Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary. See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-8 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the Airport Environs Overlay (AEO) District.

Status: This measure was not implemented.

Recommendation: Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary. See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-9 (CURRENTLY APPROVED MEASURE)

Description: Seek cooperation from the Board of Realtors to participate in a fair disclosure program for property located within the AEO District.

Status: This measure was not implemented.

Recommendation: Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary. See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-10 (CURRENTLY APPROVED MEASURE)

Description: Periodically place advertisements in the real estate sections of local newspapers delineating the boundaries of the AEO District.

Status: This measure was not implemented.

Recommendation: Continue with modification to advertise Airport Land Use Management District (ALUMD) boundaries through a variety of media (e.g. Website), not specifically real estate sections of newspapers. See Alternative LU-B for more information on the ALUMD.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-11 (CURRENTLY APPROVED MEASURE)

Description: Purchase the Buckles property to prevent imminent noncompatible development from occurring.

Status: This measure was not implemented.

Recommendation: Withdraw approved measure LU-11. The Buckles property is currently being discussed for a commercial use, therefore making the land use compatible.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-A

TITLE:	Purchase non-compatible residential properties within the 65 DNL on Johnstown Road.

DESCRIPTION:	Measure LU-1 recommends sound insulation of homes within the 65 DNL. These homes on Johnstown Road are within the 65 DNL, have received sound insulation, and are isolated from other residential land uses by the surrounding commercial and industrial development. The intent of this measure is to remove these residential land uses due to their proximity to the airport and the lack of an established neighborhood.

BENEFITS:	This measure would eliminate residential structures within the 65 DNL.

DRAWBACKS:	This measure would be costly to implement because land is being sold in this area at commercial values much higher than residential land value. In fact at the time of this Study, two of the homes were for sale. These homes have already been sound insulated therefore, that investment would be lost.

FINDINGS AND RECOMMENDATION:	Since these properties are located in an area that is transitioning to commercial and industrial uses, any remaining homes will likely be converted to such compatible uses in the near future. This alternative is **NOT RECOMMENDED** for inclusion in the NCP.

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-B EXHIBIT F-1

TITLE:	Develop an Airport Land Use Management District (ALUMD) based on the 20-year Noise Exposure Map/Noise Compatibility Program (NCP) noise contour, natural geographic and jurisdictional boundaries.

DESCRIPTION:	This measure would develop a fixed boundary within which land use controls can be recommended. These land use controls may include noise overlay zoning, updates to subdivision regulations and building codes, and formal fair disclosure policies. This measure would identify a boundary, within which, the airport has some influence, either economically, from aircraft overflights, or restrictions on use of land or height of structures. All jurisdictions within the ALUMD have been contacted and coordinated with to discuss incorporating this boundary into their planning documents. The ALUMD is envisioned with a series of sub-districts where different land use controls can be applied. It is recommended that the sub-districts also be fixed boundaries so that normal increases and decreases in the airport's noise contours do not require reestablishing the land use boundaries. Because there are nine jurisdictions with various land use and zoning regulations, implementation would require the assistance of the Mid-Ohio Regional Planning Agency (MORPC) or some similar organization be used to help coordinate and facilitate this process.

BENEFITS:	This measure would establish a fixed boundary within which consistent land use planning for compatibility purposes can be conducted.

DRAWBACKS:	There are nine jurisdictions with various land use and zoning regulations.

FINDINGS AND RECOMMENDATION:	This alternative is **RECOMMENDED** for inclusion in the NCP.

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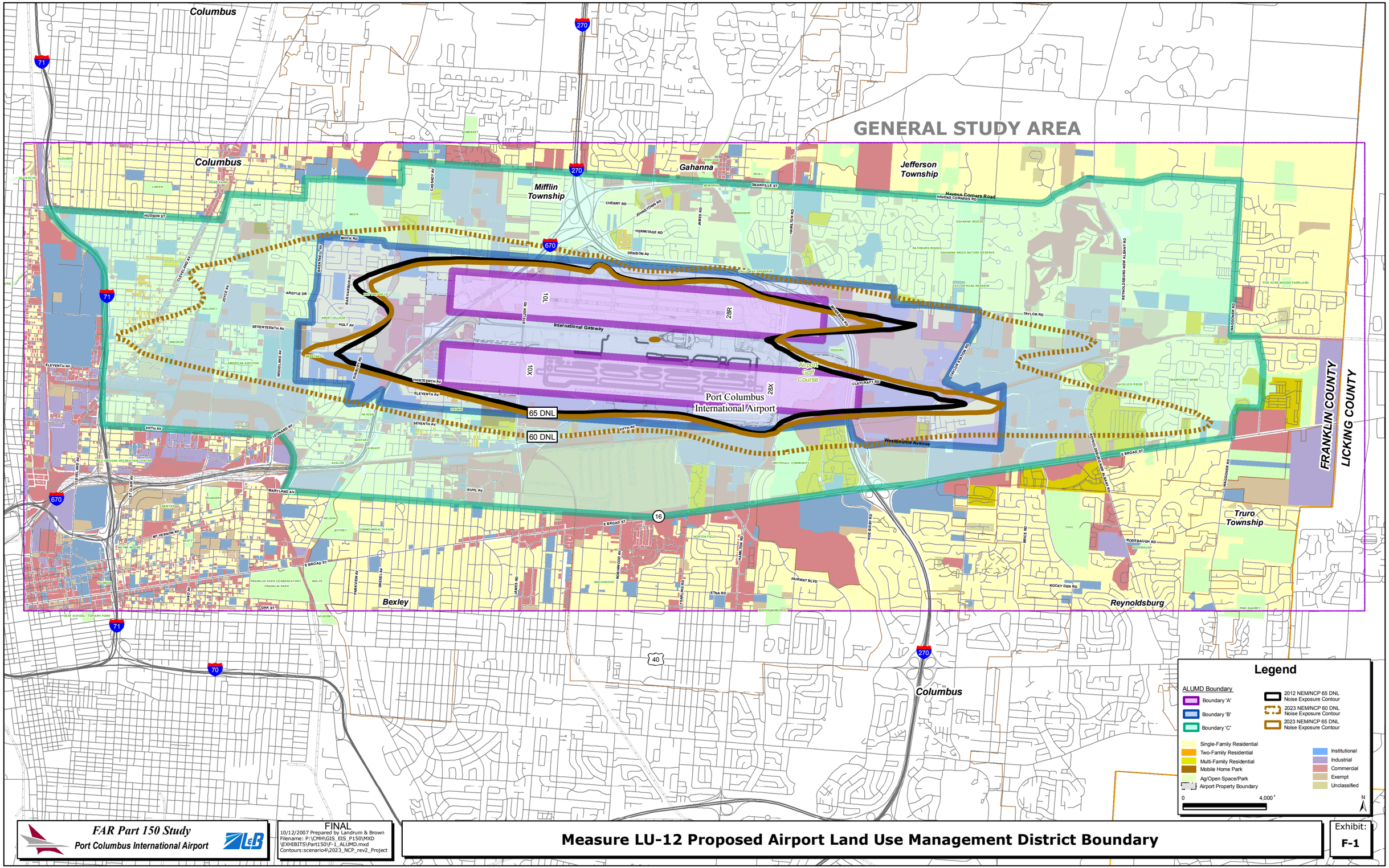

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/12/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\F-1_ALUMD.mxd
Contours:scenario4\2023_NCP_rev2_Project

Measure LU-12 Proposed Airport Land Use Management District Boundary

Exhibit:
F-1

NOISE COMPATIBILITY PROGRAM ALTERNATIVE LU-C EXHIBIT F-2

TITLE:	Modify the sound insulation program boundaries identified in approved measure LU-1 to reflect the Future (2012) NCP.

DESCRIPTION:	Approximately 98 homes inside the 65 DNL of the Future (2012) NCP would be eligible for sound insulation. The CRAA has developed a methodology for providing sound insulation for specific areas outside but adjacent to the 65 DNL of the Future (2012) NCP contour. The policy of providing sound insulation to the areas adjacent to the 65 DNL is intended to preserve the integrity of contiguous, stable, and viable residential neighborhoods of similar housing design, construction type and materials. The methodology for implementing this policy is to provide sound insulation for homes where a majority of the street would be eligible for sound insulation because of their location within the 65 DNL of the Future (2012) NCP. Applying this methodology would result in an additional 64 homes being eligible for sound insulation. The homes eligible for sound insulation would be given a priority status that is dependent on location and prior eligibility for sound insulation. Area A (highest priority) would include homes located within the 65 DNL of the Future (2012) NCP that have never been eligible for sound insulation. Area B (second highest priority) would include the homes in the areas adjacent to Area A that would maintain continuity within the neighborhood. Area C (lowest priority) would include the homes that were previously eligible for sound insulation but had declined to participate in the program.

BENEFITS:	The implementation of this measure would help to reduce the adverse impact of airport related noise on the occupants of the homes. Sound insulation reduces the interference of airport noise with household activities such as sleeping, talking on the phone and watching television.

DRAWBACKS:	Sound insulation does not alter the noise impacts outside the home.

FINDINGS AND RECOMMENDATION:	This alternative is **RECOMMENDED** for inclusion in the NCP, which would modify approved measure LU-1.

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Future (2012) NEM/ NCP 65 DNL
Noise Exposure Contour

Future (2012) NEM/ NCP 65 DNL
Noise Exposure Contour

Legend

- Existing SIP Boundary
- Proposed Addition to SIP Boundary
- Built 2002 to Present - Not Eligible
- Airport Property Boundary

0 800' N

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\F-2_Measure LU-1
Proposed Sound Insulation Boundary.mxd

Measure LU-1 Proposed Sound Insulation Boundary

Exhibit:
F-2

APPENDIX G
PUBLIC INVOLVEMENT

The process of providing opportunities for public review and comment during the development of the Noise Exposure Maps (NEMs) and the Noise Compatibility Program (NCP) includes four techniques: committee meetings, focus group meetings, Public Information Workshops, and a formal Public Hearing. Each technique facilitates the active and direct participation of members of the public and the opportunity for them to submit comments to the Columbus Regional Airport Authority (CRAA).

This appendix provides the information related to the public involvement process undertaken during the Port Columbus International Airport (CMH) Part 150 Noise Compatibility Study Update and is divided into the following sections:

- Discussion of the Planning Advisory Committee (PAC) membership and meetings
- Discussion of Focus Group Meetings
- Discussion of the Public Information Workshops
- Discussion of the Public Hearing
- Location of Study Documents for Public Review
- PAC meeting materials for each meeting including invitation letter, meeting registration, meeting presentation, and summary meeting notes
- Public Information Workshop meeting materials for each meeting including published notice, presentation boards, handouts, and comments received
- Public Hearing comments received and response to comments
- Noise Abatement Alternatives Coordination
- Land Use Alternatives Coordination

G.1 PLANNING ADVISORY COMMITTEE (PAC)

A PAC was established by the CRAA and was composed of representatives of local agencies; citizen representatives; Airport Traffic Control Tower (ATCT) staff; airport users; representatives from the local community; and CRAA staff. The PAC advised the Federal Aviation Administration (FAA), CRAA staff, and the consultant on the analysis and recommendations of the Part 150 Noise Compatibility Study through meetings and review of analysis, findings, and recommendations. **Table G-1** lists the PAC membership.

Table G-1
PLANNING ADVISORY COMMITTEE (PAC) MEMBERSHIP
Port Columbus International Airport

NAME	TITLE	COMPANY/AFFILIATION
Thomas Browne	Managing Director of Airports	Air Transport Association of America
Bill Cumbow	Airport Representative	Airline Pilots Association
Richard Smith III	Executive Vice President	Net Jets
Ron Moodespaugh	Director of Building Maintenance	Lane Aviation Corporation
Dan Wolfe	Manager	Nationwide Insurance Company
Bill Tylka	General Manager – Vice President	Million Air
Ken Waite	Facility Manager	Columbus International Air Center
Tim Stehle	Director of Flight Operations	Limited Brands
Mark Dooley	Manager	Continental/Continental Express
Mark Fleetham	Air Canada Jazz	Real Estate Programs Manager, Central Region
Frank Martino	General Manager	American/American Eagle
Patti Froelich	Manager	Midwest Connect/Skyway
Bryan Levandusky	Manager	Northwest/Mesaba
Sandy Dicocco	Manager	US Airways/US Airways Express/America West
Brian Kennedy	Manager	United/United Express
Felix Sciulli	Manager	Delta/Delta Connection
Joni Taylor	Manager	Southwest
Jeff Lischak	Regional Manager	Chautauqua
Kevin Costello	Manager	JetBlue Airways
Chris Gawronski	Senior Planner	Mid-Ohio Regional Planning Commission
Dennis Carvill	Manager	Skybus
Bruce Gibson	Front Line Manager, Supervisor	FAA, CMH ATCT
James Bryant	Aviation Administrator	Ohio Office of Aviation
Don Peters	Vice President	Columbus Flight Watch
Alan Harding	President	Columbus Flight Watch
Katherine Jones	Community Planner	FAA, Detroit Airports District Office
Troy Shaw	President	East Columbus Civic Association

Table G-1, *Continued*
PLANNING ADVISORY COMMITTEE (PAC) MEMBERSHIP
Port Columbus International Airport

NAME	TITLE	COMPANY/AFFILIATION
Robert Lawler	Director, Transportation	Mid-Ohio Regional Planning Commission
Elwood Rayford	Chair	Northeast Area Commission
Chris Lenfest	Manager	FAA, CMH ATCT
Tiffany White	Chairperson	North Central Area Commission
Mary Dewberry	Member	A Better Community
Columbus Russell	President	Cumberland Ridge Civic Association
Grisetta Griffin	President	Brittany Hills Civic Association
Harold McDaniel	President	St. Mary's Civic Association
Vince Papsidero	Planning Administrator	City of Columbus
Devayani Puranik	Senior Planner	City of Columbus
Bruce Langner	Development Director	City of Bexley
Robert Lawler	Director of Transportation	Mid-Ohio Regional Planning Commission
Raymond Ogden	Public Service Director	City of Whitehall Planning Commission
Lynn Ochsendorf	Mayor	City of Whitehall
Matthew Shad	Development Director	City of Whitehall
Sadicka White	Director of Development	City of Gahanna
Bonnie Gard	Zoning Administrator	City of Gahanna
Matthew Huffman	Planner	City of Gahanna
John Brandt	Development Director	City of Reynoldsburg
Lucas Haire	Planning Administrator	City of Reynoldsburg
Charles McCroskey	Zoning Administrator	Jefferson Township
Lee Brown	Development Department and Zoning Enforcement	Franklin County
Cathy Ferrari	External Relations Manager	Ohio State University Airport
Gene Harris	Superintendent	City of Columbus Schools

G.1.1. COMMITTEE MEETINGS

Five PAC meetings were conducted throughout the study. Informal presentations were made at all of the PAC meetings and included open discussion. This format provided the opportunity for group discussions about land use and noise issues, airport operations, and implementation strategies. Presentations, meeting materials, and summary meeting notes from each of the PAC meetings are provided at the end of this appendix. The date, time, and location of each PAC meeting is provided below.

PAC Meeting #1 - July 11, 2006
Emergency Operations Center, Port Columbus International Airport
11:00 a.m. to 12:30 p.m.

PAC Meeting #2 – December 5, 2006
Emergency Operations Center, Port Columbus International Airport
11:00 a.m. to 1:00 p.m.

PAC Meeting #3 – March 13, 2007
Concourse Hotel and Conference Center
1:00 p.m. to 3:00 p.m.

PAC Meeting #4 - April 24, 2007
Concourse Hotel and Conference Center
11:00 a.m. to 1:00 p.m.

PAC Meeting #5 - June 27, 2007
Concourse Hotel and Conference Center
1:00 p.m. to 3:00 p.m.

G.2 FOCUS GROUP MEETINGS

As part of the public participation requirement under Federal Aviation Regulations (FAR) Part 150, the consultants and airport staff made themselves available for meetings with neighborhood organizations, airport user groups, local government officials, and local residents throughout the study period. On May 3, 2007 and June 15, 2007, meetings were held with the City of Columbus, Mid Ohio Regional Planning Commission, CRAA staff, and members of the consultant team to discuss the potential land use measures.

Two meetings were held on February 26, 2007 and March 15, 2007 with members of the CMH ATCT, CMH Terminal Radar Approach Controls (TRACON), CRAA staff, and members of the consultant team. The meetings addressed the feasibility of potential noise abatement alternatives. Appendix G, *Public Involvement*, includes copies of summaries from the meetings.

G.3 PUBLIC INFORMATION WORKSHOPS

Public Information Workshops provided the public with ample opportunity to participate in one-on-one discussions with airport staff, the FAA, and the airport consultants, and to review the maps, noise contours, flight tracks, and other study analysis. Four sets of workshop opportunities were provided to the public during the conduct of this study: July 11th and 12th, 2006; December 5th and 6th, 2006; April 24th and 25th, 2007; and August 14th and 15th, 2007. Newspaper notices for each set of workshops were published in the Columbus Dispatch, This Week Community Newspapers (Bexley News, Gahanna News, and Reynoldsburg News), the Call and Post, and the Somali Link Newspaper. Meeting dates and locations were also placed on the CRAA's website. Press releases were also published prior to each set of public workshops. Information regarding each set of Public Information Workshops is included later in this appendix.

Public Information Workshop #1 – July 11 & 12, 2006

July 11, 2006
5:00 p.m. – 8:00 p.m.
Holiday Inn
750 Stelzer Road
Columbus, OH 43219

July 12, 2006
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

Public Information Workshop #2 – December 5 & 6, 2006

December 5, 2006
5:00 p.m. – 8:00 p.m.
Holiday Inn
750 Stelzer Road
Columbus, OH 43219

December 6, 2006
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

Public Information Workshop #3 – April 24 & 25, 2007

April 24, 2007
5:00 p.m. – 8:00 p.m.
Oakland Park at Brentnell
Elementary School
1270 Brentnell Avenue
Columbus, OH 43219

April 25, 2007
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

Public Information Workshop #4/Public Hearing – August 14 & 15, 2007 (scheduled)

August 14, 2007
5:00 p.m. – 8:00 p.m.
Oakland Park at Brentnell
Elementary School
1270 Brentnell Avenue
Columbus, OH 43219

August 15, 2007
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

CRAA staff and the consultant were available to present and discuss the information regarding the Part 150 study process, baseline noise exposure maps, recommended noise abatement, land use mitigation, potential implementation measures, as well as the Draft document. Newspaper notices, press releases, registration, handouts, and comments received are included in this Appendix.

G.4 PUBLIC HEARING

A set of Public Hearings were held concurrently with the fourth and final set of Public Information Workshops to satisfy the requirement for a Public Hearing as specified in 14 CFR 150.23(e)(7). Interested citizens were encouraged to attend and to testify or provide written comments at the Public Hearing on the Draft Part 150 Noise Compatibility Study. A court reporter was available to record oral comments and comment forms were also provided. A transcript of the oral testimony and the written comments received at the Public Hearing is included in this Appendix. These comments were organized and categorized by topic and a response provided.

Public Information Workshop #4/Public Hearing – August 14 & 15, 2007 (scheduled)

August 14, 2007
5:00 p.m. – 8:00 p.m.
Oakland Park at Brentnell
Elementary School
1270 Brentnell Avenue
Columbus, OH 43219

August 15, 2007
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

G.5 AVAILIBILITY OF THE DOCUMENT FOR PUBLIC REVIEW

Copies of the Draft *Part 150 Noise Compatibility Study* document were located in the locations listed below and newspaper notices were published announcing the availability of the document for review and comment prior to the Public Hearings.

Locations for Draft Part 150 Document Review	
Columbus Regional Airport Authority Port Columbus International Airport Administrative Offices 4600 International Gateway Columbus, OH 43219	Columbus Metropolitan Library Gahanna Branch 310 Granville Street Gahanna, OH 43230
City of Gahanna 200 South Hamilton Road Gahanna, OH 43230	Columbus Metropolitan Library Shepard Branch 790 N. Nelson Road Columbus, OH 43219
City of Whitehall 360 South Yearling Road Whitehall, OH 43213	Columbus Metropolitan Library Linden Branch 2432 Cleveland Avenue Columbus, OH 43211
Jefferson Township 6545 Havens Road Blacklick, OH 43004	Columbus Metropolitan Library Whitehall Branch 4371 East Broad Street Whitehall, OH 43213
City of Bexley 2242 East Main Street Bexley, OH 43209	Columbus Metropolitan Library Reynoldsburg Branch 1402 Brice Road Reynoldsburg, OH 43068
City of Reynoldsburg 7232 East Main Street Reynoldsburg, OH 43068	Bexley Public Library 2411 East Main Street Bexley, OH 43209
Columbus Metropolitan Branch Main Branch 96 South Grant Avenue Columbus, OH 43215	Port Columbus International Airport Website: www.columbusairports.com/noise/info.asp#150

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Planning Advisory Committee Meeting #1
July 11, 2006

Letter of Invite
Registration
Presentation
Summary Meeting Notes

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COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

U.S. Department of Transportation
Federal Aviation Administration

June 16, 2006

Name
Title
Company
Address
City, State Zip

RE: Port Columbus International Airport
Environmental Impact Statement and Part 150 Noise Compatibility Study Update
Study Advisory Committee and Planning Advisory Committee Meetings

Dear Name:

This letter is to inform you that the Columbus Regional Airport Authority (CRAA) has proposed a replacement/relocation of the south runway and the development of a new passenger terminal to supplement the existing passenger terminal at Port Columbus International Airport (CMH).

Before these projects can be started, the Federal Aviation Administration (FAA) will prepare an Environmental Impact Statement (EIS) for the proposed projects. The primary purpose of an EIS is to analyze and disclose the environmental impacts caused by proposed projects. Because there are potential noise impacts associated with the proposed projects, the CRAA is concurrently updating their Part 150 Noise Compatibility Study. The purpose of a Part 150 Study is to identify noise impacts and develop mitigation options or recommendations to help minimize noise impacts on the surrounding community.

In support of the EIS and Part 150 Study, two committees are being formed. A Study Advisory Committee (SAC) is being formed to review and comment on the EIS and a Planning Advisory Committee (PAC) is being formed to review and comment on the proposed noise abatement and land use mitigation measures recommended in the Part 150 Study Update.

As a representative of your organization, you are invited to participate on the following committee(s):

EIS SAC
Part 150 PAC

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

U.S. Department of Transportation
Federal Aviation Administration

The first meeting of these committees is scheduled for:

Tuesday, July 11, 2006
Port Columbus International Airport
Emergency Operations Center

An agenda for the two meetings is enclosed with this letter. The SAC will meet from **10:00 a.m. to 11:00 a.m.** There will be a short break and the PAC will meet from **11:00 a.m. to 12:30 p.m.**

The Emergency Operations Center is located on the second level of the airport terminal. It can be accessed by an elevator located adjacent to the food court. There will be signage near this elevator directing you to the committee meetings. Please bring your parking ticket to the meeting with you for validation.

We will manage our time so that we end promptly at 12:30 p.m. As always, we appreciate your interest in Port Columbus International Airport and your participation in these studies. Please let us know if you are able to attend the July 11th meetings by responding to Melanie DePoy of Aerofinity, Inc by June 30, 2006. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Katherine S. Jones
Community Planner
Federal Aviation Administration

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY UPDATE

Columbus Regional Airport Authority
PLANNING ADVISORY COMMITTEE

July 11, 2006
11:00 a.m. to 12:30 p.m.

AGENDA

WELCOME

I. What is a Part 150?/Part 150 Process

II. How the Part 150 fits into the EIS Process

III. History of CMH Part 150 Planning

IV. Existing Conditions

V. Future Conditions

VI. Potential Noise Abatement and Land Use Alternatives

VII. Next Steps

VIII. Part 150 Schedule

6/16/06 PAC/SAC Distribution List

Mr. Thomas J. Browne
Managing Director of Airports
Air Transport Association of America
1301 Pennsylvania Avenue, NW – Suite 1100
Washington, DC 20004-1707

Mr. Bill Cumbow
Airline Pilots Association
262 McKenna Creek Drive
Gahanna, OH 43230

Mr. Ron Moodespaugh
Director of Building Maintenance
Lane Aviation Corporation
4389 International Gateway
Columbus, OH 43219

Mr. Richard G. Smith III
Executive Vice President
Net Jets
625 N. Hamilton Road
Columbus, OH 43219

Ms. Katy Jones
Community Planner
Federal Aviation Administration – Detroit ADO
11677 S. Wayne Road
Romulus, MI 48174

Mr. Chris Lenfest
Manager
CMH Air Traffic Control Tower
4277 International Gateway
Columbus, OH 43219

Mr. James Bryant
Aviation Administrator
Ohio Office of Aviation
2829 W. Dublin-Granville Road
Columbus, OH 43219

Mr. Vince Papsidero
Planning Administrator
City of Columbus
109 N. Front Street, Ground Floor
Columbus, OH 43215

Mr. Chris Gawronski
Senior Planner
MORPC
285 E. Main St.
Columbus, OH 43215

Mr. Robert Lawler
Director of Transportation
MORPC
285 E. Main St.
Columbus, OH 43215

Mr. Erike Witzke
Principal Engineer
MORPC
285 E. Main St
Columbus, OH 43215

Long Range Planning Manager
City of Columbus
109 N. Front Street, Second Floor
Columbus, OH 43215

Ms. Dorothy Pritchard
Service Director
City of Bexley
2242 E. Main St
Bexley, OH 43209

Mr. Bill Bellamy
Code Enforcement Officer
City of Bexley
2242 E. Main St.
Bexley, OH 43209

6/16/06 PAC/SAC Distribution List

Sadicka White
Director of Development
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

Ms. Bonnie Gard
Zoning Administrator
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

AOPA
Airports Division
421 Aviation Way
Frederick, MD 21701

Mr. Mark Dooley, Manager
Continental Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Patti Froehlich, Manager
Midwest Connect/Skyway
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Sandy Dicocco, Manager
US Airways/US Airways/America West
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Felix Scuilli, Manager
Delta/Delta Connection
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms Bonnie Gard
Zoning Administrator
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

Mr. Charles McCroskey
Zoning Administrator
Jefferson Twp.
6545 Havens Road
Blacklick, OH 43004

Mr. Lee Brown
Franklin County
Development Dept. and Zoning Enforcement
280 East Broad Street, 2nd Floor
Columbus, OH 43215

Frank Martino, General Manager
American/American Eagle
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Bryan Levandusky, Manager
Northwest/Mesaba
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Brian Kennedy, Manager
United/United Express
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Joni Taylor, Manager
Southwest Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

6/16/06 PAC/SAC Distribution List

Mr. Jeff Lischak, Regional Manager
Chautauqua Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Dr. Harold E. McDaniel
President
St. Mary's Civic Association
979 Wellington Blvd.
Columbus, OH 43219

Mr. Dan Wolfe
Manager
Nationwide Insurance Company
3945 Bridgeway Avenue
Columbus, OH 43219

Mr. Ken Waite
Facility Manager
The Columbus International Air Center
4300 East Fifth Avenue
Columbus, OH 43219

Mr. Don Peters
Columbus Flight Watch
40 Massey Drive
Westerville, OH 43081

Dr. Troy Lee Shaw, President
East Columbus Civic Association
East Columbus Community Center
2743 East 5th Ave.
Columbus, OH 43219

Mr. Columbus Russell
President
Cumberland Ridge Civic Association
1876 Mountain Oak Rd.
Columbus, OH 43219

Mr. Doug Hammon
Director
Ohio State University
2160 West Case Road
Columbus, OH 43235-2526

Dr. Gene Harris
Superintendent
City of Columbus Schools
270 East State Street
Columbus, OH 43215

Mr. Raymond Ogden
Public Service Director
City of Whitehall Planning Commission
360 S. Yearling Road
Whitehall, OH 43213

Mr. Bill Tylka
Million Air
4130 East Fifth Avenue
Columbus, OH 43219

Mr. Tim Stehle
Director of Flight Operations
Limited Brands
4387 International Gateway
Columbus, OH 43219

Mr. Thomas Lusch
2185 Olde Sawmill Road
Dublin, OH 43016-8221

Mr. Elwood Rayford
Chair
Northeast Area Commission
2776 Yorkcliff Rd.
Columbus, OH 43219

Ms. Grisetta Griffin
Brittany Hills Civic Association
2463 Peekskill Drive
Columbus, OH 43219

Port Columbus International Airport
14 CFR Part 150 Noise Compatibility Study
PLANNING ADVISORY COMMITTEE/STUDY ADVISORY COMMITTEE MEETING - July 11, 2006

Attendance Sign-in	Name	Address	Phone/e-mail
	Industry Groups		
	Air Transport Association Thomas J. Browne, Managing Director Airports	Air Transport Association of America 1301 Pennsylvania Avenue, NW - Suite 1100 Washington, DC 20004-1707	
	Airline Pilots Association Bill Cumbow	262 McKenna Creek Drive	(614) 337-8864
	AOPA Airports Division	Gahanna, OH 43230 421 Aviation Way Frederick, MD 21701	
	Airport Business Partners		
	Net Jets Richard G. Smith III Executive Vice President	4111 Bridgeway Avenue Columubus, OH 43219	(614) 239-~~5500~~ 5518 rsmith@netjets.com
	Lane Aviation Corporation Ron Moodespaugh Director of Building Maintenance	Lane Aviation Corporation 4389 International Gateway Columbus, OH 43219	(614) 237-3747 x157 moodespaugh@laneaviation.com
	Nationwide Insurance Company Dan Wolfe Manager	3945 Bridgeway Avenue Columbus, OH 43219	(614) 249-8000 Wolfeda@nationwide.com
	Million Air Bill Tylka	4130 East Fifth Avenue Columbus, OH 43219	(614) 238-3900 billtylka@millionair-cmh.com
	The Columbus International Air Center Ken Waite Facility Manager	4300 East Fifth Avenue Columbus, OH 43219	(614) 236.0843
	Limited Brands Tim Stehle Director of Flight Operations	4387 International Gateway Columbus, OH 43219	(614) 415.1800 Tstahle@Limitedbrands.com
	Citizens/Citizen Groups		
	Columbus Flight Watch Don Peters	40 Massey Drive Westerville, OH 43081	614 890 1062
	Thomas Lusch	2185 Olde Sawmill Road Dublin, OH 43016-8221	DonPeters@columbus.rr.com
	East Columbus Civic Association Dr. Troy Lee Shaw President	East Columbus Community Center 2743 East 5th Avenue Columbus, OH 43219	(614) 253-9429 shaw.162@osu.edu
	Northeast Area Commission Elwood Rayford Chair	2776 Yorkcliff Rd Columbus, OH 43219	(614) 475-1448
	North Central Area Commission Jimmie Moreland III Chair	1314 Sigsbee Avenue Columbus, OH 43219	
	Cumberland Ridge Civic Association Columbus Russell President	1876 Mountain Oak Rd Columbus, OH 43219	(614) 475-7277 Jarfull@sbcglobal.net
	Brittany Hills Civic Association Ms. Grisetta Griffin	2463 Peekskill Drive Columbus, OH 43219	(614) 471-3947 ggriffi1@columbus.rr.com
	St.Mary's Civic Association Dr. Harold E. McDaniel President	979 Wellington Blvd Columbus, OH 43219	(614) 252-7782 hMcdaniel2@Columbus.rr.com

(Mail Postcard Copy for his reference)

Airlines

	Continental/Continental Express Mark Dooley, Manager		(614) 239-4060 mdooley@coair.com
	Air Canada Jazz No local contact.		
	American/American Eagle Frank Martino, General Manager		(614) 239-4245 Frank.Martino@aa.com
	Midwest Connect/Skyway Patti Froehlich, Manager		(614) 238-7752
Bryan Levandusky Cathy Caslin	Northwest/Mesaba Bryan Levandusky, Manager (Cathy Caslin - Attending for Bryan Levandusky US Airways/US Airways Express/America West Sandy Dicocco, Manager		(614) 239-4313 Bryan.Levandusky@nwa.com CATHERINE.CASLIN@NWA.COM (614) 238-7515 Sandy_Dicocco@usairways.com
	United/United Express Brian Kennedy, Manager		(614) 239-4286 Brian.F.Kennedy@ual.com
	Delta/Delta Connection Felix Sciulli, Manager		(614) 239-4448
	Southwest Joni Taylor, Manager		(614) 238-7722 Joni.Taylor@wnco.com
	Chautauqua Jeff Lischak, Regional Manager		(614) 235-1193 jlischak@flychautuqua.com

Agencies

Katherine Jones	**FAA ADO** Katherine Jones, Environmental Specialist Detroit Airports District Office	11677 S. Wayne Road Romulus, MI 48174	(734) 229-2958
Chris Lenfest	**FAA CMH ATCT** Chris Lenfest, Manager CMH Air Traffic Control Tower	4277 International Gateway Columbus, OH 43219	CHRIS.LENFEST@FAA.GOV
	Bruce Gibson	(Same As Above)	CMH. 338-4092 BRUCE.GIBSON@FAA.GOV
	Ohio Office of Aviation James Bryant, Aviation Administrator	2829 W. Dublin-Granville Road Columbus, OH 43219	(614) 387 2341 james.bryant@dot.state.oh.us

Municipalities

	City of Columbus Vince Papsidero, Planning Administrator Long Range Planning Manager	109 N. Front Street, Ground Floor Columbus, OH 43215	(614) 645-8664
Devayani Puranik	Devayani Puranik, Planner	"	(614) 645-0663
C Gawronski Robert Lawler	~~City of Columbus~~ - MORPC Chris Gawronski, ~~Senior~~ Planner Principal Robert Lawler, Director of Transportation ~~Erike Wirtke, Principal Engineer~~	285 E. Main St. Columbus, OH 43215 (Same As Above)	(614) 233-~~4160~~ 4166 cgawronski@morpc.org (614) 233-4140 rlawler@morpc.org
	City of Bexley Dorothy Pritchard, Service Director	2242 E. Main St. Bexley, OH 43209	(614) 235-8694
	Bill Bellamy, Code Enforcement Officer		
	City of Gahanna Sadicka White, Director of Development	200 South Hamilton	(614) 342-4015
Bonnie Gard	Bonnie Gard Attending	↓ Gahanna, OH 43230	bonnie.gard@gahanna.gov
	Matthew Huffman, Planner		
	City of Reynoldsburg John A. Brandt, Development Director	7232 E. Main Street Reynoldsburg, OH 43068	(614) 322-6807
Lucas M. Haire	Lucas Haire, Planning Administrator	7232 E. Main St Reynoldsburg, OH 43068	(614) 322-6829 lhaire@ci.reynoldsburg.oh.us
	Jefferson Twp. Charles McCroskey, Zoning Administrator	6545 Havens Road Blacklick, OH 43004	(614) 855-4265
	Franklin County Lee Brown Development Department and Zoning Enforcement	280 E. Broad St., 2nd Floor Columbus, OH 43215	(614) 462-3095

Other			
	Ohio State University Doug Hammon, Director	2160 West Case Road Columbus, OH 43235-2526	(614) 292-5460 dhammon@osuairport.com
	School Representatives **City of Columbus Schools** Dr. Gene Harris Superintendent	270 East State Street Columbus, OH 43215	(614) 365-5000

Additional Attendees			
		Please Print	
Attendance Sign-in	**Name**	**Address**	**Phone/e-mail**
David Wall	CRAA		
B.F. Meles	[redacted] CRAA		
MARK KELBY	CRAA		
SCOTT WHITLOCK	City of Worthington	6081 Olentangy River Road	whitlsc@aol.com
kimberly nixon-bell	(WOOSE)	6077 Olentangy Riv. Rd. Worthington	kim@nixonbell.com
Dennis S Hennen	(WOOSE)	198 Caren Ave, Worthington Ohio 43085	dsh@dsh.org 614-436-0403
Stacey Heaton	CRAA		
Bethany J. Miller	w/ Bonnie Gard	City of Gahanna	
~~Robert Looker~~			
Dave Clemmer	CRAA		
~~[illegible]~~	[redacted]	~~City of Columbus~~	

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study
STUDY ADVISORY COMMITTEE MEETING - July 11, 2006

Attendance Sign-in	Name	Address	Phone/e-mail
	Agencies		
	Ohio EPA Bob Hodanbosi Headquarters Chief	122 S. Front St. Columbus, OH 43216-1049	(614) 644.2270 bob.hodanbosi@epa.state.oh.us
	Municipalities		
	City of Columbus Eagan Foster, Transportation Administrator	109 N. Front Street	
	Patricia Austin, Transportation Division		
	Tom Russell, Division of Water Quality	910 Dublin Road	
	Golf Course - Recreation	200 Greenlawn Ave.	
	City of Whitehall Raymond Ogden, Public Service Director City of Whitehall Planning Commission	360 S. Yearling Road Whitehall, OH 43213	(614) 237-8612 rogden@cityofwhitehall.com
Matt Shad	Matthew Shad, Development Director	360 S. Yearling Road Whitehall, OH 43213	(614) 338-3103 development@cityofwhitehall.com
	Citizens/Citizen Groups		
	Friends of Big Walnut Creek Susan Moeller	116 Mill Street Gahanna, OH 43230	(614) 470-9699

Port Columbus International Airport

FAR Part 150 Noise Compatibility Study

Planning Advisory Committee
Meeting 1

July 11, 2006

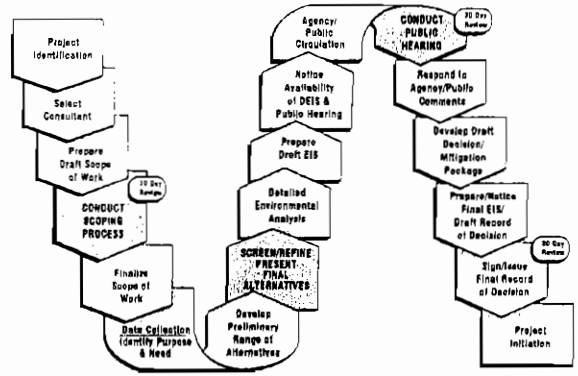
Planning Advisory Committee

Welcome and
Introductions

Today's Agenda

- **Integration of Part 150 into the EIS Process**
- **Role of the Planning Advisory Committee**
- **History of Aviation Noise Abatement Planning**
- **Overview of a Part 150 Study**
- **History of Noise Abatement Planning at CMH**
- **Essential Elements of a Part 150 Study**
- **Existing Noise Exposure**
- **Future Noise Exposure**
- **Noise Monitoring Program**
- **Next Steps**

Integration of the Part 150 into the EIS Process



Integration of the Part 150 into the EIS Process

- **Environmental Analysis Process**
  - 22 Environmental Categories require analysis
  - Develop baseline conditions
  - Identify the impact of the proposed project and the alternatives to the proposed project for each category
  - If necessary, develop mitigation to reduce or eliminate the impact
- **Part 150 Study takes an in-depth and public oriented approach to noise and compatible land use**
  - People are more sensitive to changes in noise than other categories
  - Federal funds are potentially at stake for mitigation
  - Allows the public to participate in the development of new flight procedures and land use mitigation

Integration of the Part 150 into the EIS Process

- **Benefits of Preparing Concurrent EIS and Part 150 Studies**
  - Takes advantage of data collection that can be used for both studies
  - Speaking with one voice to the public and regulatory agencies in terms of future planning at the airport
  - Coordinated effort in meeting with the Air Traffic Control Tower and developing air traffic procedures

Role of the Planning Advisory Committee

- **Sounding Board**
- **Link to the Community**
- **Reviewer**
- **Aid to Implementation**
- **Sub-committees**
  - Land Use
  - Operational

History of Aviation Noise Abatement Planning

- Jet Age + Rapid Expansion of Airports + Continued Suburban Development/Sprawl = ***Adverse Noise Impacts***
- Aviation Noise Abatement Policy of 1976
- Aviation Safety and Noise Abatement Act of 1979
  - FAR Part 150 (1981) established requirements for airport owners who choose to submit noise exposure maps and develop noise compatibility planning programs to the FAA for review and approval.
  - Voluntary on the part of the sponsor and is not a requirement of the Federal government.

History of Aviation Noise Abatement Planning

- **Airport Noise and Capacity Act of 1990**
  - Established phase-out timeline of Stage 2 aircraft (Commercial aircraft >75,000 lbs)
  - Restricted airports from imposing locally based, non-voluntary restrictions without first completing a Part 161 Study. (To date no Part 161 has been submitted and approved by the FAA)
- **FAA Final Policy on Part 150 Noise Mitigation Measures (October 1, 1998)**
  - Individuals building a home within an approved and published noise exposure contour are NOT eligible for remedial noise mitigation.

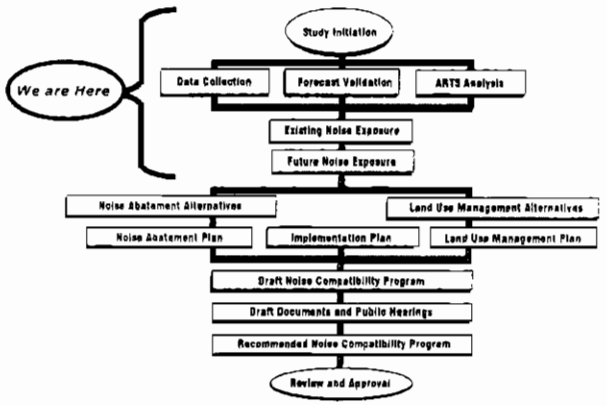
Overview of a Part 150 Study

- **Part 150 Studies Are Planning Studies**
  - Identify noise and land use impacts that exist today and in the future
  - Work to develop solutions within the FAA's framework
- **Part 150 Studies <u>can</u> open funding sources**
  - Following FAR Part 150 guidelines makes airport eligible for grants for implementing recommendations of the study
  - Funding is not guaranteed

Overview of a Part 150 Study

- **Part 150 Studies do <u>not:</u>**
  - Recommend closing an airport or implementing mandatory restrictions on aircraft
  - Give environmental approval for implementing noise abatement or land use programs

Overview of a Part 150 Study



History of Noise Abatement Planning at CMH

- **Previous Part 150 Studies Completed at CMH**
  - **1987 Part 150 Study (original)**
  - **1993 Part 150 Study Update**
  - **1999 Part 150 Study Update**
    - 5 Noise Abatement Measure Recommendations
    - 11 Land Use Management Recommendations
    - 6 Implementation Management Recommendations
  - **2001 Noise Exposure Map Update**
    - Updated Noise Contours to 2001/2006 conditions
    - Extended the Sound Insulation Program boundary

Essential Elements of a Part 150 Study

- **Noise Exposure Maps:**
  - Description of the noise levels for existing and future conditions
    - Future condition should take into account any changes (physical or operational) that may have an effect on the noise levels around the airport.
- **Noise Compatibility Program:**
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement
    - Land Use Mitigation
    - Implementation Measures
- **Public Involvement:**
  - Public Workshops/Planning Advisory Committee

Part 150 Elements: Noise Exposure Maps

General: Maps depicting the existing and the future noise levels around the airport along with residential and other noise-sensitive land uses.

- FAR Part 150 provides guidance on the size, scale, and elements to be included.
- These maps are the starting point for identifying where there are noise impacts.
- Existing condition is based on 12 months of data.
- Future condition projects noise levels five years out.

Part 150 Elements: Noise Exposure Maps

Technical:

- Represents an annual-average day (1 year of operations/365 days).
- Described with a set of continuous lines that represent equal levels of noise (e.g., 65 DNL).
- Prepared using the FAA's Integrated Noise Model (INM) Version 6.2.
- Must use specific noise metric -- Day-Night Level (DNL).
  - 24-Hour average
  - Penalty for nighttime (10:00 p.m. - 6:59 a.m.) flights (x 10)
  - National standard for all Federal agencies
  - 65 DNL identified as threshold for impact

Part 150 Elements: Noise Exposure Maps

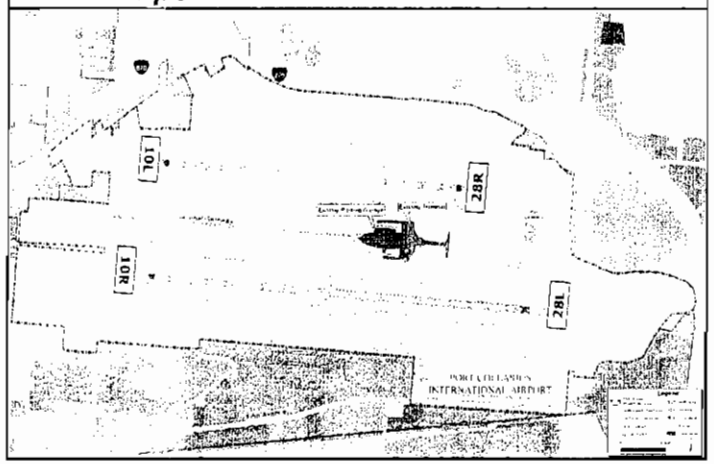
Categories of Input Data	Sources of Input Data
Runway Layout	Airport Layout Plan
Operating Levels	Airport, FAA
Fleet Mix	Radar Data, OAG
Runway Use	Radar Data, FAA
Flight Tracks	Radar Data, FAA

- Aircraft Database (over 200 aircraft)
- Aircraft Performance
- Aircraft Noise Data

Integrated Noise Model

Noise Contours | Tabular Reports | Grid Point Analysis

Part 150 Elements: Noise Exposure Maps



Part 150 Elements: Noise Exposure Maps

- **Operating Levels**
  - Based on FAA Air Traffic Control Tower records for 2005 and 2006 to date.
  - Estimates for remaining 2006 were made based on 2005 operating levels and Official Airline Guide data on projected activity

Category	2006 Annual Operations	2006 Average Annual Day Operations	Percent
Air Carrier Jets	42,340	116	22%
Regional Jets	83,220	228	41%
Commuter Props	9,490	26	5%
General Aviation Jets	29,200	80	15%
General Aviation Props	32,850	90	17%
Total	197,100	540	100%

Part 150 Elements: Noise Exposure Maps

- **Fleet Mix**
  - Based on:
    - Airline reported data
    - Official Airline Guide/JP Fleets
    - ANOMS flight tracking data
  - Air Carrier operations primarily made up of Boeing 737 and 757, Airbus 319/320, and McDonnell-Douglas MD80 and DC9.
  - Commuter operations included regional jets (Canadair and Embraer) and turboprops.
  - Business jets and single/twin-engine propeller aircraft make up the general aviation fleet.

Part 150 Elements: Noise Exposure Maps

- **Runway Use**
  - West Flow (arrive and depart Runways 28L and 28R)
    - 75% of the operations
  - East Flow (arrive and depart Runways 10L and 10R)
    - 25% of the operations
  - Higher use of Runway 10L/28R (north runway) than in previous years
    - Terminal and airfield layout makes Runway 10L/28R an easier/quicker option for those airlines located on the north side of the terminal (Southwest/Delta)
    - Southwest recently relocated to Terminal A, which will likely have an effect on overall airport runway use

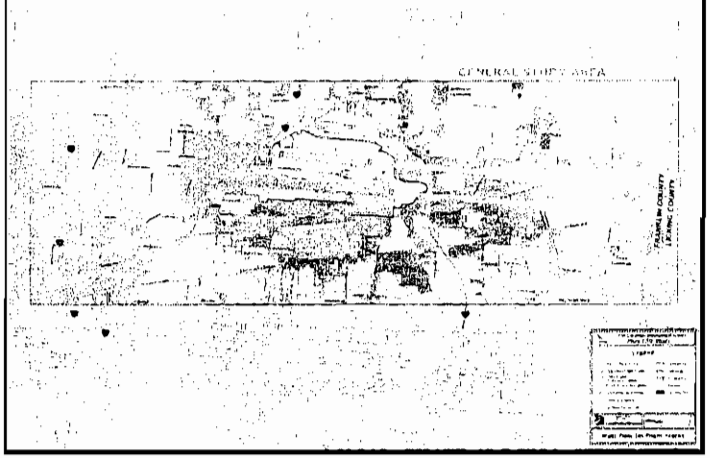
Part 150 Elements: Noise Exposure Maps

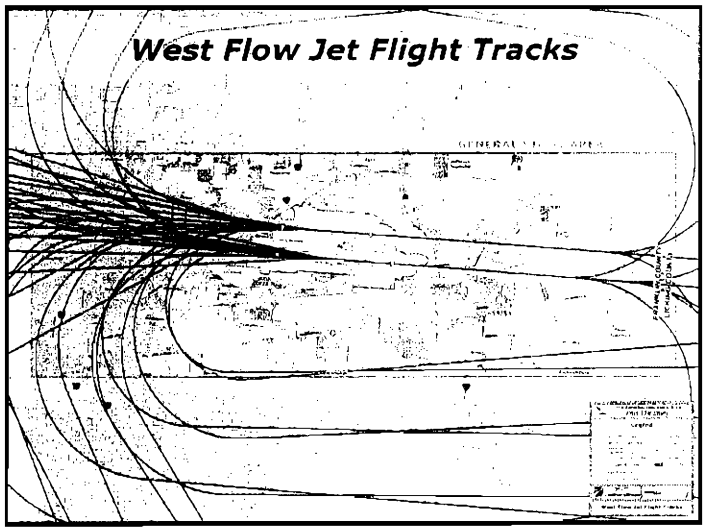
- **Runway Use (continued)**
  - Noise Abatement Procedures Affecting Runway Use
    - Unless wind, weather, runway closure, or loss of navaids dictate otherwise, between the hours of 10:00 pm and 8:00 am Runways 28L or 10R are assigned jet aircraft.
    - Jet aircraft with Stage 3 engines may use Runway 10L/28R for arrivals between the hours of 10:00 pm and 1:00 am.
    - Jet aircraft with Stage 3 engines may use Runway 10L/28R after 6:00 am.
    - Maximize east flow (arrivals and departures on Runways 10L/R)

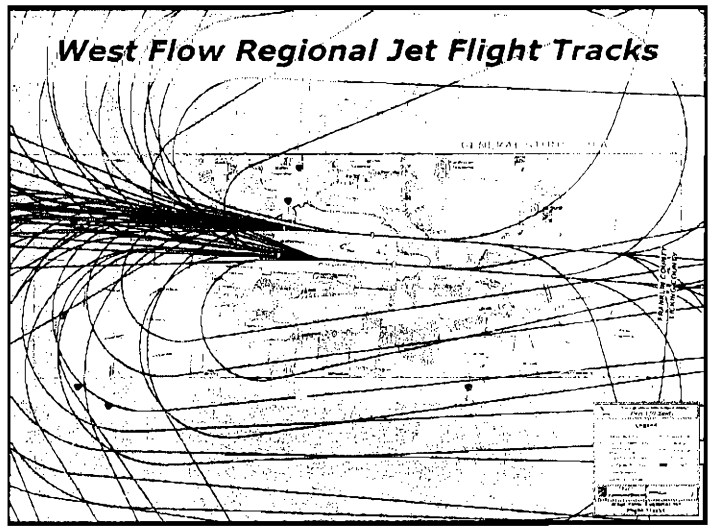
Part 150 Elements: Noise Exposure Maps

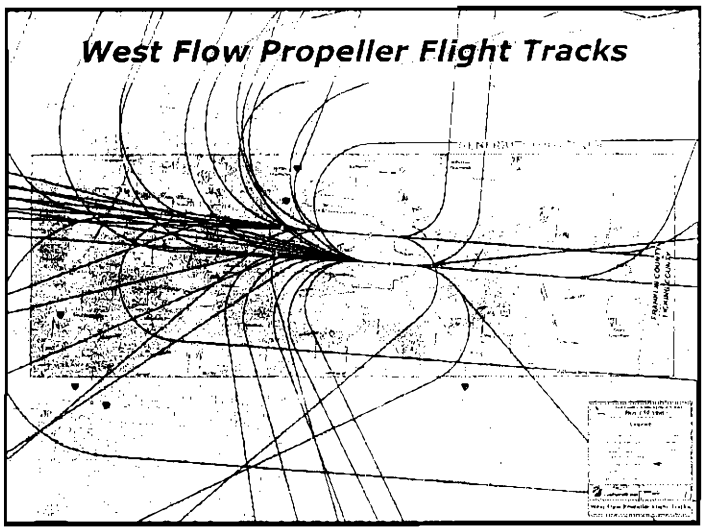
- **Flight Tracks**
  - Flight tracks are lines that represent the ground path of an aircraft as it arrives or departs the airport.
  - Radar data was collected from the Airports Noise and Operations Management System (ANOMS) representing each season.
  - Noise Abatement Procedures Affecting Flight Tracks
    - 10:30 pm to 7:00 am – Runway 10R departures:
      - Aircraft will be assigned 100 degree heading.
      - Propeller aircraft shall be turned no further than 15 degrees (085 to 115) and will maintain that heading until reaching 3,000 MSL or 3 miles from runway.
      - Aircraft will begin turn at 2.2 DME of 10R Localizer.
      - Aircraft must climb to an altitude of 1,215 MSL before turning.

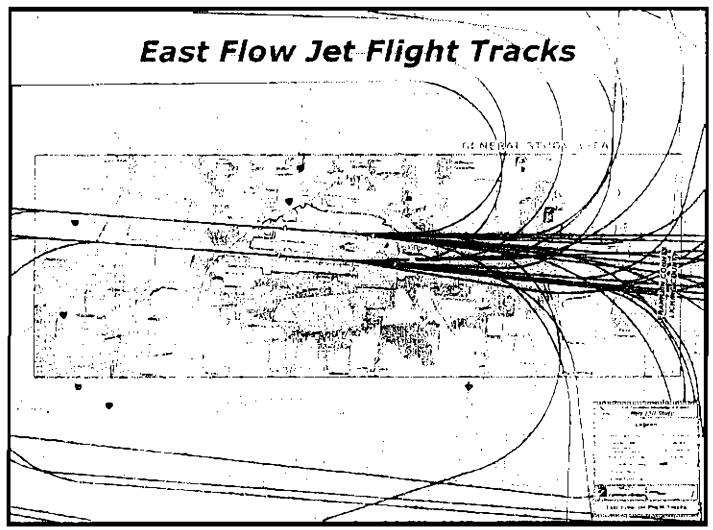
West Flow Jet Radar Tracks



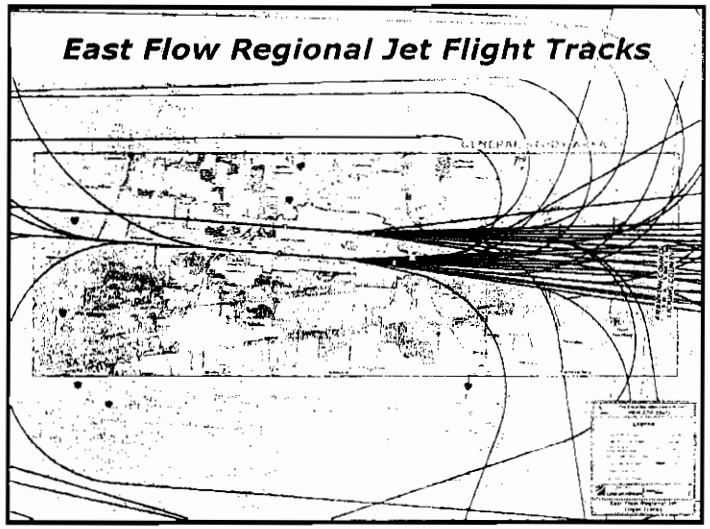

West Flow Jet Flight Tracks


West Flow Regional Jet Flight Tracks

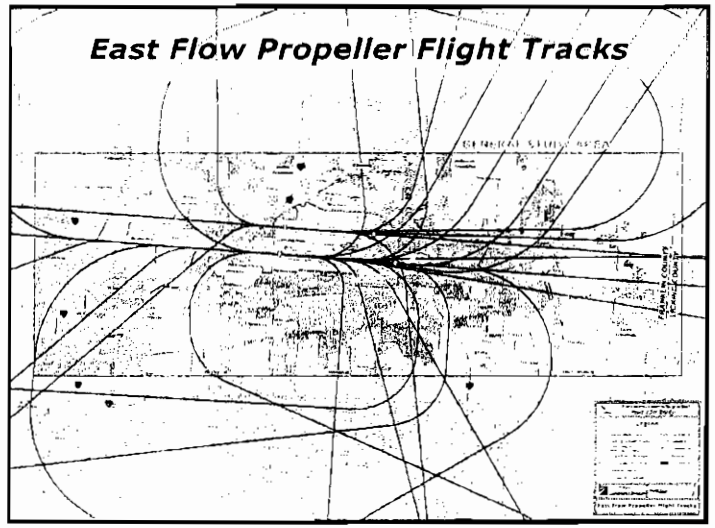

West Flow Propeller Flight Tracks


East Flow Jet Flight Tracks

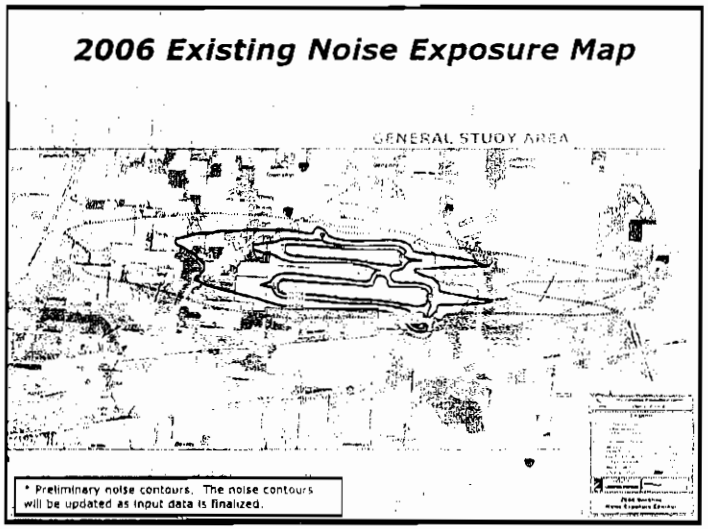
East Flow Regional Jet Flight Tracks



East Flow Propeller Flight Tracks



2006 Existing Noise Exposure Map



2006 Existing Noise Exposure Map

- **Noise Exposure Contour Shape and Size**
  - East of the airport, the noise contour primarily reflects usage by aircraft arriving to the airport (thinner noise contours).
  - West of the airport, the noise contour primarily reflects usage of aircraft departing from the airport (wider and rounder noise contours).
  - Contour shape and size also reflects a heavier use of Runway 10L/28R

2006 Existing Noise Exposure Map

Housing Counts*				
Columbus	**65-70 DNL**	**70-75 DNL**	**75+ DNL**	**Total**
Currently in Sound Insulation Program	2	0	0	2
Not in Sound Insulation Program	1	0	0	1
Columbus Total	***3***	***0***	***0***	***3***
Mifflin				
Currently in Sound Insulation Program	39	0	0	39
Not in Sound Insulation Program	2	0	0	2
Mifflin Total	***41***	***0***	***0***	***41***
Gahanna				
Currently in Sound Insulation Program	0	0	0	0
Not in Sound Insulation Program	0	0	0	0
Gahanna Total	***0***	***0***	***0***	***0***
Grand Total	**44**	**0**	**0**	**44**
Population*				
Columbus	***7***	***0***	***0***	***7***
Mifflin	***101***	***0***	***0***	***101***
Gahanna	***0***	***0***	***0***	***0***
Grand total	**108**	**0**	**0**	**108**
Churches*	0	0	0	0
Schools*	0	0	0	0

* Preliminary counts. The counts will be updated when the noise contours are finalized

Future Baseline Noise Exposure Contours

- **Future Runway Layout**
  - No change from existing layout
- **Future Operating Levels (2012)**
  - Based on FAA Terminal Area Forecast and revised forecasts of activity for CMH
  - Approximately 241,630 annual operations
  - Overall 23% increase from 2006 Baseline levels

Future Baseline Noise Exposure Contours

- **Future Operating Levels (2012)**

Category	2012 Annual Operations	2012 Average Annual Day Operations	Percent
Air Carrier Jets	46,720	128	19%
Regional Jets	124,100	340	51%
Commuter Props	3,650	10	2%
General Aviation Jets	32,850	90	14%
General Aviation Props	34,310	94	14%
Total	**241,630**	**662**	**100%**

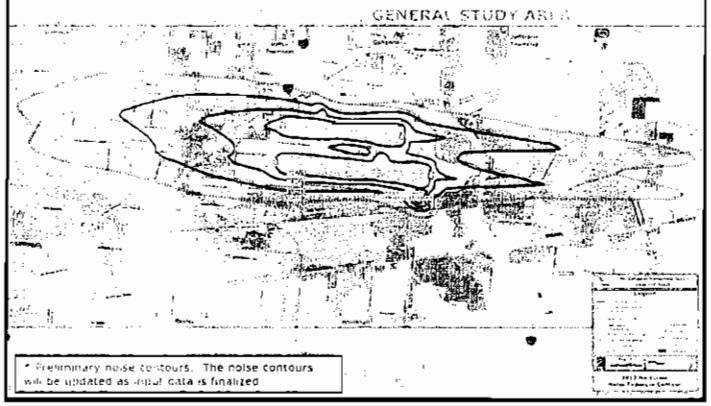
Future Baseline Noise Exposure Contours

- **Future Fleet Mix**
  - Passenger and cargo jet aircraft are expected to remain similar to baseline conditions
  - Regional jet aircraft will likely see an increase in the number of seats and the larger turboprops will replace small prop aircraft
  - Business jets and single/twin-engine propeller aircraft will continue to serve the corporate and general aviation market

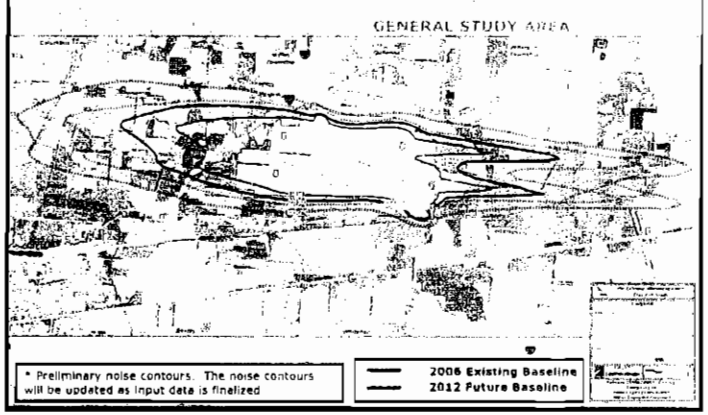
Future Baseline Noise Exposure Contours

- **Future Runway Use**
  - No change from existing conditions
  - Over the next months, the effect of Southwest relocating to Terminal A will be examined to determine the effect on the overall airport runway use
- **Future Flight Tracks**
  - No change from existing conditions

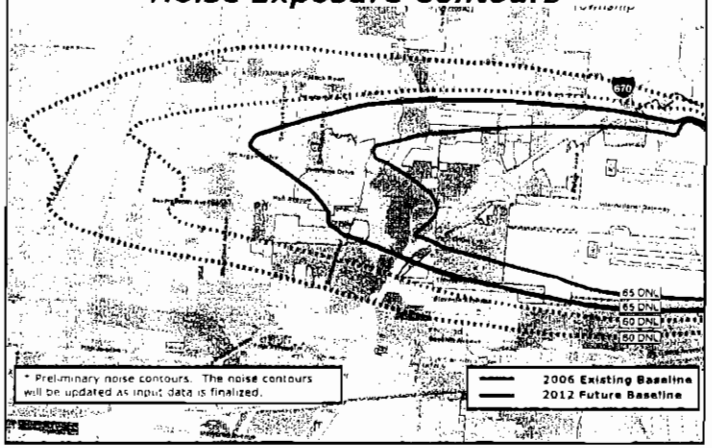
Future Baseline Noise Exposure Contour



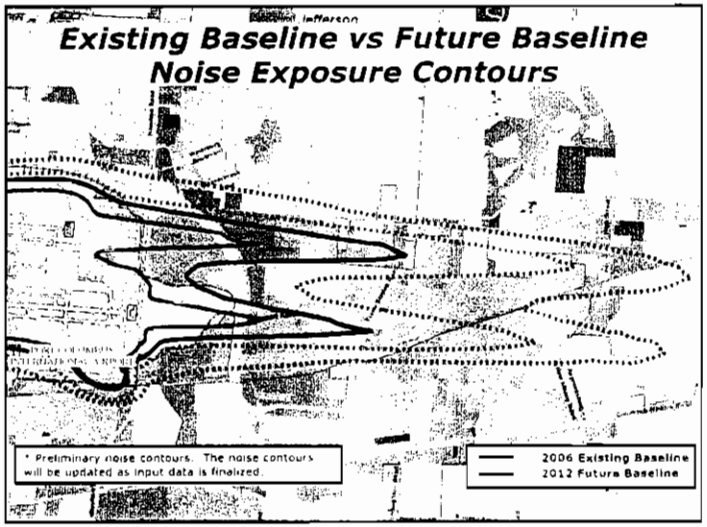
Existing Baseline vs Future Baseline Noise Exposure Contours



Existing Baseline vs Future Baseline Noise Exposure Contours



Existing Baseline vs Future Baseline Noise Exposure Contours



Future Baseline Noise Exposure Contours

- **Noise Exposure Contour Shape and Size**
  - Shape remains similar to the Existing 2006/07 noise contour.
  - Growth in the size of the contour due to the increase in the operations.

Future Baseline Noise Exposure Contours

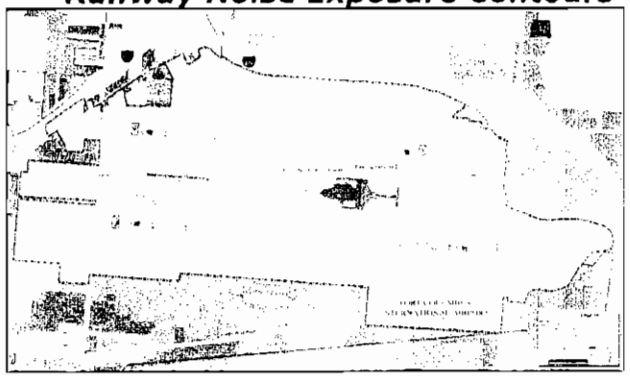
Housing Counts*				
Columbus	65-70 DNL	70-75 DNL	75+ DNL	Total
Currently in Sound Insulation Program	454	0	0	454
Not in Sound Insulation Program	184	3	0	187
Columbus Total	*638*	*3*	*0*	*641*
Mifflin				
Currently in Sound Insulation Program	54	1	0	55
Not in Sound Insulation Program	4	4	1	9
Mifflin Total	*58*	*5*	*0*	*63*
Gahanna				
Currently in Sound Insulation Program	0	0	0	0
Not in Sound Insulation Program	0	0	0	0
Gahanna Total	*0*	*0*	*0*	*0*
Grand Total	696	8	0	704
Population*				
Columbus	*1,576*	*7*	*0*	*1,583*
Mifflin	*143*	*12*	*0*	*155*
Gahanna	*0*	*0*	*0*	*0*
Grand total	1,719	19	0	1,738
Churches*	6	0	0	6
Schools*	4	0	0	4

* Preliminary counts. The counts will be updated when the noise contours are finalized.

Future Baseline with Relocated Runway Noise Exposure Contours

- **This condition includes no noise abatement procedures other than what is currently in place today**
  - The purpose of the Part 150 Study is to identify, evaluate, and recommend noise abatement procedures to help reduce the impact of the runway relocation.
- **The only change from the Future Baseline condition is the location of Runway 10R/28L – 702 feet south**

Future Baseline with Relocated Runway Noise Exposure Contours



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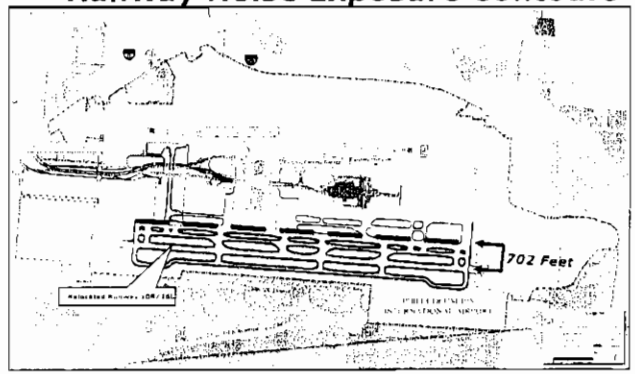
PORT COLUMBUS INTERNATIONAL AIRPORT
FAR PART 150 NOISE COMPATIBILITY STUDY

Future Baseline with Relocated Runway Noise Exposure Contours



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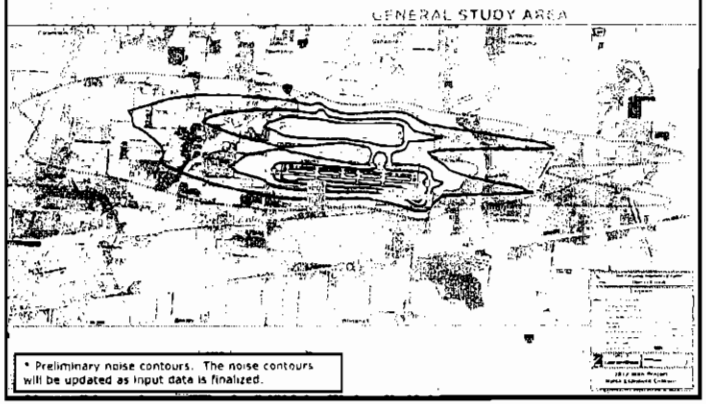
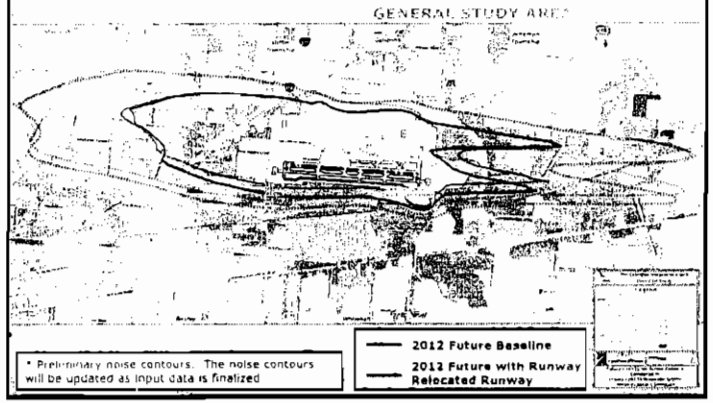
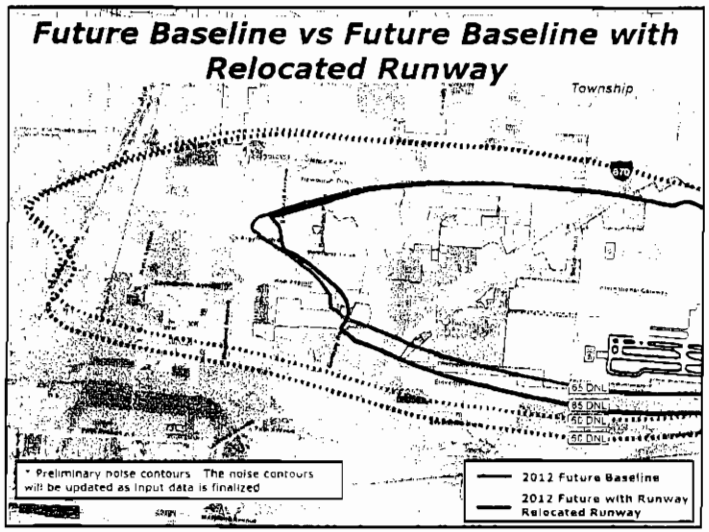
PORT COLUMBUS INTERNATIONAL AIRPORT
FAR PART 150 NOISE COMPATIBILITY STUDY

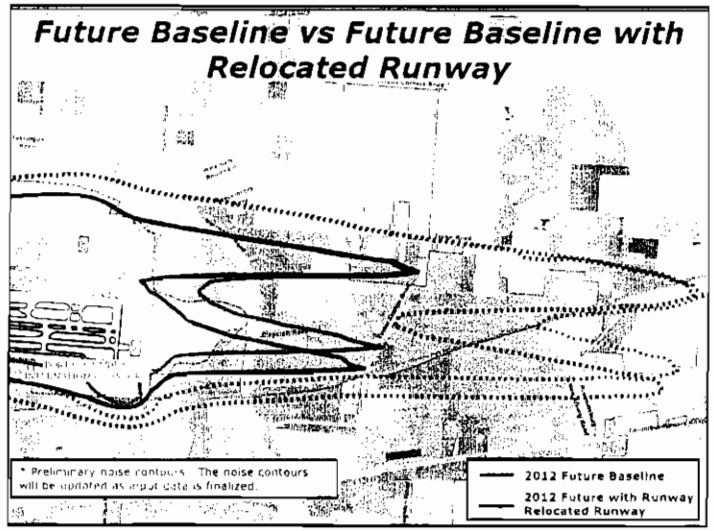
Preliminary Future Baseline with Relocated Runway Noise Exposure Contour

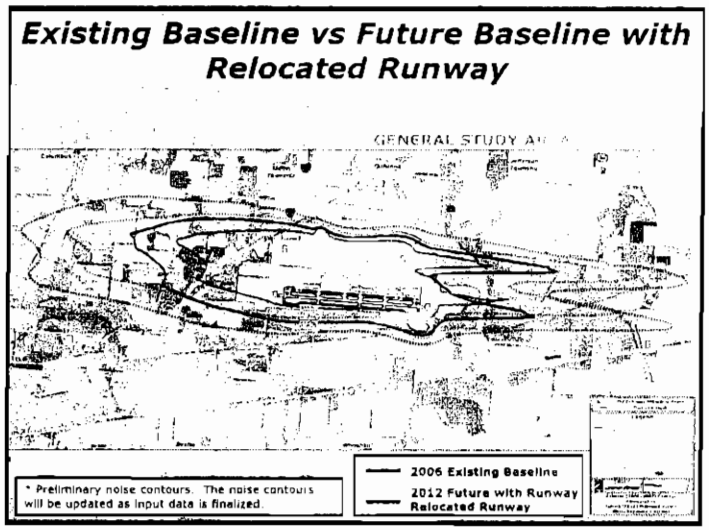


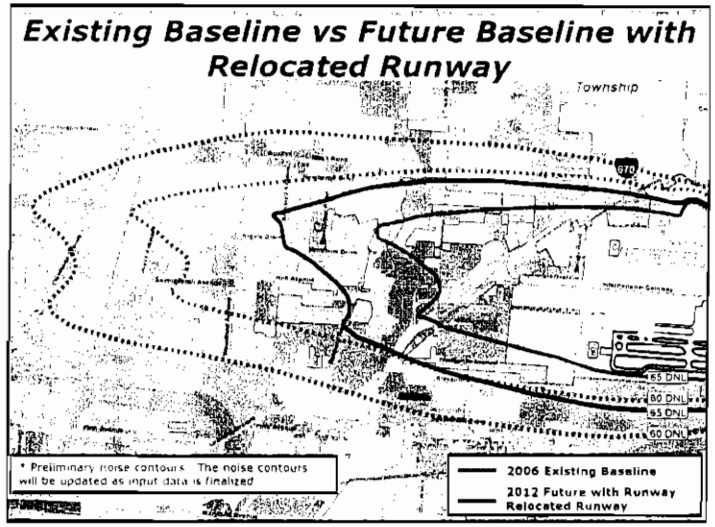
Future Baseline vs Future Baseline with Relocated Runway



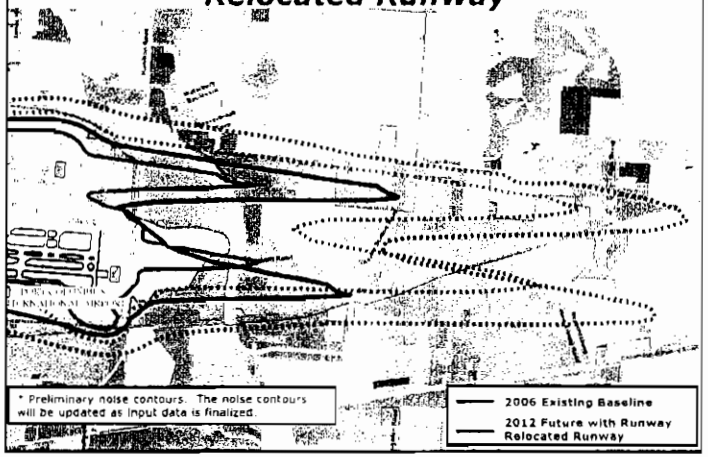

Future Baseline vs Future Baseline with Relocated Runway
Township
670
65 DNL
60 DNL
* Preliminary noise contours. The noise contours will be updated as input data is finalized.
2012 Future Baseline
2012 Future with Runway Relocated Runway


Future Baseline vs Future Baseline with Relocated Runway
* Preliminary noise contours. The noise contours will be updated as input data is finalized.
2012 Future Baseline
2012 Future with Runway Relocated Runway


Existing Baseline vs Future Baseline with Relocated Runway
GENERAL STUDY AREA
* Preliminary noise contours. The noise contours will be updated as input data is finalized.
2006 Existing Baseline
2012 Future with Runway Relocated Runway


Existing Baseline vs Future Baseline with Relocated Runway
Township
670
65 DNL
60 DNL
* Preliminary noise contours. The noise contours will be updated as input data is finalized.
2006 Existing Baseline
2012 Future with Runway Relocated Runway

Existing Baseline vs Future Baseline with Relocated Runway



Future Baseline with Relocated Runway Noise Exposure Contours

- **Noise Exposure Contour Shape and Size**
  - Shape reflects the relocation of Runway 10R/28L.
  - The size of the contour stays relatively the same as the Future Baseline.

Future Baseline with Relocated Runway Noise Exposure Contours

Housing Counts*				
Columbus	65-70 DNL	70-75 DNL	75+ DNL	Total
Currently in Sound Insulation Program	[illegible]	6	[illegible]	569
Not in Sound Insulation Program	309	3	[illegible]	312
Columbus Total	*878*	*3*	*0*	*881*
Mifflin				
Currently in Sound Insulation Program	[illegible]	2	[illegible]	60
Not in Sound Insulation Program	[illegible]	2	[illegible]	6
Mifflin Total	*62*	*4*	*0*	*66*
Gahanna				
Currently in Sound Insulation Program	0	0	[illegible]	0
Not in Sound Insulation Program	[illegible]	0	[illegible]	0
Gahanna Total	*0*	*0*	*0*	*0*
Grand Total	940	7	0	947
Population*				
Columbus	*2,169*	*7*	*0*	*2,176*
Mifflin	*153*	*10*	*0*	*163*
Gahanna	*0*	*0*	*0*	*0*
Grand total	2,322	17	0	2,339
Churches*	4	0	0	4
Schools*	4	0	0	4

* Preliminary counts. The counts will be updated when the noise contours are finalized

Summary of Noise Impacts

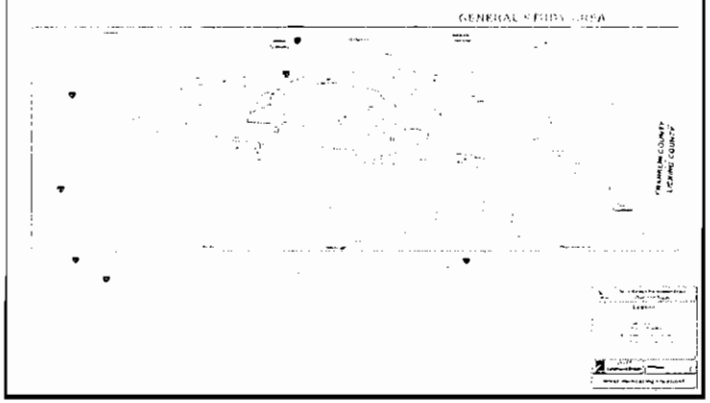
Housing Counts*				
	65-70 DNL	70-75 DNL	75+ DNL	Total
2006 Existing Baseline	44	0	0	44
2012 Future Baseline	696	8	0	704
2012 With Relocated Runway	940	7	0	947
Population*				
2006 Existing Baseline	108	0	0	108
2012 Future Baseline	1,719	19	0	1,738
2012 With Relocated Runway	2,322	17	0	2,339

* Preliminary counts. The counts will be updated when the noise contours are finalized

Noise Monitoring Program

- **Purpose**
  - Validate/verify the input data in the Integrated Noise Model (focus on departures)
  - Obtain "real-life" noise measurements to assist in understanding the total noise environment
- **Conducted the week of June 19, 2006**
  - 3 person team
  - Collected noise readings at 40 sites (approx. 1 hour at each site)
- **Results**
  - Loudest aircraft recorded was DC-9
  - Average number of aircraft observed at each site was 13
  - Further analysis to be completed. Results to be presented at next PAC meeting

Noise Monitoring Program Sites



Next Steps

- **Tonight - Public Information Workshop**
  Holiday Inn
  750 Stelzer Road
  Columbus, Ohio
  5:00 p.m. to 8:00 p.m.
- **Tomorrow Night - Public Information Workshop**
  Whitehall Community Park
  Activities Center
  402 North Hamilton
  Whitehall, Ohio
  5:00 p.m. to 8:00 p.m.
- **Finalize the Existing and Future Noise Exposure Contours**
- **Identify Preliminary Noise Abatement, Land Use Management, and Program Alternatives**

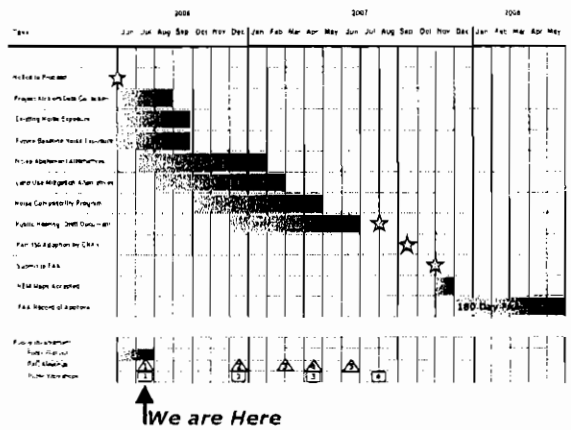
Next Steps (cont'd)

- **Develop Noise Abatement Alternatives**
  - *Purpose:* To reduce noise levels in surrounding communities
    - Flight location (e.g., departure flight corridors)
    - Runway use program (e.g., how often runway ends are used)
    - Ground activity restrictions (e.g., run-up locations/time)
    - Facility development (e.g., runway extensions, berms)
    - Flight restrictions (e.g., mandatory curfews / restrictions -- would require Part 161 Study)

Next Steps (cont'd)

- **Develop Land Use Mitigation Alternatives**
  - Preventive strategies prevent the introduction of additional noise-sensitive land uses within existing and future noise exposure contours
    May also be applicable outside of the 65 DNL noise contour
  - Corrective strategies mitigate existing and projected future unavoidable noise impacts in areas of existing incompatible land use
    Applicable to 65 DNL noise contour

FAR Part 150 Schedule



Questions/Answers

Airport Planning Beyond Boundary

September 7, 2006

Name
Title
Company
Address
City, State, Zip Code

RE: Port Columbus International Airport
EIS and Part 150 Noise Compatibility Study Update
SAC and PAC Meeting Minutes

Dear Name:

Enclosed are meeting minutes for the July 11, 2006 Study Advisory Committee (SAC) and Planning Advisory Committee (PAC) meetings for the Port Columbus International Airport Environmental Impact Statement (EIS) and Part 150 Noise Compatibility Study Update.

For those who were unable to attend, we are also sending a copy of the handouts that were given at each of the meetings.

As always, we appreciate your interest in Port Columbus International Airport and thank you for your participation in these studies. The next SAC and PAC meeting is scheduled for December 5, 2006. A meeting reminder and agenda will be sent in advance of the meeting.

Sincerely,

Melanie K. DePoy
Managing Principal

51 South New Jersey St.
Indianapolis, IN 46204
317.955.8395 Phone
317.955.8479 Fax

MEETING MEMO

51 S. New Jersey St., 2nd Floor
Indianapolis, IN 46204
317.955.8395 317.955.8479 FAX

MEETING	Port Columbus International Airport FAR Part 150 Noise Compatibility Study Planning Advisory Committee – Meeting 1
MEETING DATE	July 11, 2006

ATTENDING

A meeting attendance list is attached.

DISCUSSION SUMMARY

Dave Wall, Capital Program Manager for the Columbus Regional Airport Authority (CRAA), opened the meeting by welcoming participants and thanking them for their participation. Mr. Wall introduced Rob Adams, Project Manager for Landrum & Brown, the consulting firm conducting the Part 150 Noise Compatibility Study (Part 150).

Mr. Adams explained that the Planning Advisory Committee (PAC) meeting was being held simultaneous with the Study Advisory Committee (SAC) for the Environmental Impact Statement (EIS) because there are potential noise impacts associated with the proposed development projects. He explained that there are 22 environmental categories, including noise, analyzed as part of the EIS. Baseline conditions are developed for each category and alternatives to the proposed project are analyzed. If necessary, mitigation measures to reduce or eliminate the impacts are developed. The Part 150 is different than the EIS in that there are potentially federal funds available for mitigation and that the process encourages more extensive public involvement in the development of mitigation measures. Mitigation measures may include changes in operating procedures and/or land use mitigation. The EIS and the Part 150 are being prepared concurrently because it allows the data to be used for both studies. It is also less confusing to the public.

Mr. Adams explained that the role of the PAC is to review the findings and potential mitigation measures associated with the Part 150. The PAC is also a link to the community. One of the requirements of the Part 150 is to include the public in the discussion of the proposed developments and to receive their feedback on the proposed mitigation measures. The PAC is very important as they are asked to provide the information learned at the meetings to other members of the public. He also explained that the PAC

would be divided, for some portions of the study, into two sub-committees. One committee would consider potential land use measures and one would consider potential changes in operational measures.

Mr. Adams introduced the other members of the consulting team including: Sarah Potter of Landrum & Brown; and Melanie DePoy and Stacy Pollert of Aerofinity. Mr. Adams reviewed the day's agenda and provided a handout with details of the information to be presented at the meeting.

History of CMH Part 150 Planning

The history of Part 150 noise compatibility planning nationally and for CMH was reviewed. Details of the legislation that provides the Part 150 process were overviewed. Part 150 studies can make airports eligible for FAA grants to implement the study recommendations although funding is not guaranteed. Mr. Adams emphasized that Part 150 studies do not recommend closing an airport or implementing mandatory restrictions on aircraft. Before the recommendations of the Part 150 can be implemented, they require an environmental review. In this case, the Part 150 is being integrated into the EIS that is being concurrently conducted.

Mr. Adams overviewed the Part 150 Study process explaining that the study is in the first phase. In this phase, data is collected and forecasts of annual operations are validated. From this information, existing and future noise contours are prepared.

In subsequent phases, alternatives will be reviewed to identify operational changes or land use management measures that could decrease the noise impact. From this review an implementation plan will be developed. The draft Noise Compatibility Program will be provided for public review and a public hearing will be held to receive public comments on the plan. After the public hearing, a recommended Noise Compatibility Program will be provided to the FAA for review and approval.

Mr. Adams explained that there has been a long history of noise compatibility planning for CMH. The first study was completed in 1987 and was updated in 1993 and 1999. In 2001, the noise exposure maps were updated and, as a result of this study, the boundaries of the airport's sound insulation program were extended.

He explained that there are three essential elements of a Part 150 Study. Noise Exposure Maps (NEMs) are prepared to document noise levels for existing and future conditions. The Noise Compatibility Program identifies noise abatement, land use mitigation and implementation measures to reduce, minimize and/or mitigate aircraft noise and land use conflicts. He re-emphasized the importance of the public workshops and the PAC in this process.

Mr. Adams introduced Sarah Potter who provided detailed information about the development of the NEMs. She explained that the NEMs are the starting point for identifying where there are noise impacts. Existing conditions are based upon 12 months of actual data. Future conditions project noise levels five years in the future. She noted that the NEMs for this study had been prepared using the latest version of the FAA's Integrated Noise Model, Version 6.2

The metric used to express noise levels is Day-Night Level (DNL.) DNL represents 24-hour average noise levels with a penalty (x 10) for nighttime flights. DNL is the national standard for all Federal agencies. 65 DNL is identified as the threshold for impact where some land uses are considered incompatible. Examples of incompatible land uses include residences, schools, churches, etc.

Existing and Future Conditions

Ms. Potter reviewed the information that had been used to develop the noise contours. Information includes actual and anticipated operating levels, type of aircraft using and anticipated to use the airport, runway use and flight tracks. She also explained the radar information that had been analyzed. She reviewed the east and west flow flight track information and explained the operations that typically represent these flight tracks.

The existing (2006) noise exposure maps were reviewed. Ms. Potter explained the noise exposure contour's shape and size. She noted that east of the airport, the noise contour primarily reflects usage by aircraft arriving to the airport. These are typically thinner noise contours. West of the airport, the noise contour primarily reflects usage of the airport by departing aircraft. These contours are wide and rounder. This typically reflects the fact that departing aircraft generally generate more noise than arriving aircraft. She noted that the contour shape and size also reflects heavier use of Runway 10L/28R, the airport's north parallel runway.

Ms. Potter reviewed the number of incompatible land uses identified as being in the 2006 Noise Exposure Map. She noted that this information is preliminary and subject to change based upon more detailed analysis. Currently, 44 homes representing 108 people are identified as being in the existing 65 DNL or higher noise contour that are not currently in the Airport Authority's sound insulation program.

Future Conditions

Ms. Potter explained that the future baseline noise contours represent operating levels in 2012 with no change in the existing runway layout. Operating levels were prepared based upon forecasts that took into account the FAA Terminal Area Forecast (TAF) and projected activity for CMH. She noted that the forecasts indicate approximately 241,630 annual operations representing an overall 23% increase from the 2006 baseline levels. She detailed the forecast operations by aircraft category.

Ms. Potter reviewed the anticipated future fleet mix for CMH noting that passenger and cargo jet aircraft are expected to remain similar to baseline conditions. Regional jet aircraft use is likely to increase in size with the current 50-seat aircraft being replaced to 90-seat aircraft. Business jets and single/twin-engine propeller aircraft will continue to serve the corporate and general aviation market.

Baseline conditions do not anticipate changes in runway use. She noted that Southwest Airlines has recently relocated their operations to Terminal A which could have an impact on overall airport runway use. The effect of the relocation of Southwest Airlines will be incorporated into the final noise contours.

She showed the future baseline noise contours and noted that they showed no change from current conditions, except an increase in size due to increase operations. Preliminary counts indicate a total of 704 homes, representing 1,738 people in the future baseline noise contours (65 DNL or higher) that are not currently in the Airport Authority's sound insulation program. There are also six churches and four schools in the future baseline noise contour.

Ms. Potter then explained the future baseline noise contours with the relocated runway. She emphasized that this condition includes no noise abatement procedures other than those currently in place. She stated that the purpose of the Part 150 Study is to identify, evaluate and recommend noise abatement procedures to help reduce the impact of the relocated runway. It was noted that the only change in the future baseline

noise contours, with the relocated runway, is the location of Runway 10R/28L – 702 feet south of its existing location. She explained that the size of the contour remains relatively the same as the future baseline contour with the shape reflecting the relocated runway.

Preliminary counts indicate that 947 homes, representing 2,339 people will be potentially exposed to noise 65 DNL or higher. Four churches and four schools are also anticipated to be in the 65 DNL or higher noise contours.

Potential Noise Abatement and Land Use Measures

Mr. Adams explained that one of the next steps in the Part 150 Study is to finalize the existing and future noise exposure contours and to begin identification of noise abatement, land use management and program alternatives that my reduce the noise impacts. Noise abatement alternatives would include such things as flight location, runway end use, ground activity, facility development and flight restrictions. He noted that flight restrictions would require additional study under FAR Part 161.

Land use mitigation measures include preventive strategies to limit the introduction of new noise sensitive land uses within the existing and future noise exposure contours. Examples of such measures are zoning, comprehensive planning, building code restrictions, etc.

Corrective strategies are intended to mitigate existing and projected future unavoidable noise impacts. Examples of such measures are sound insulation or acquisition and relocation of residences.

Next Steps

Mr. Adams explained that Public Information Workshops were to be held this evening and the next evening. This evening's Workshop would be held at the Holiday Inn at 750 Stelzer Road and tomorrow evening's Workshop would be held at the Whitehall Community Park at 402 N. Hamilton. The same information would be presented at both Workshops. The next committee meeting is expected to be held in December 2006.

The study schedule was reviewed. Mr. Adams noted that the Part 150 was to be concluded by May 2008. The PAC is scheduled to meet five times between now and June 2007. Four Public Information Workshops are scheduled between now and July 2007.

EIS Comment

The EIS is a study conducted by the Federal Aviation Administration. Comments on the EIS should be sent to:

Ms. Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 South Wayne Road, Suite 107
Romulus, MI 48174

Telephone: (734) 229-2958
Fax: (734) 229-2950
Email: CMHEIS@faa.gov

It was noted that there is a project website dedicated to this project. It can be accessed at: www.airportsites.net/cmh-eis.

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Blacklick, OH 43004

Public Information Workshop #1
July 11, 2006 & July 12, 2006

Newspaper Notice
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Registration
Handout
Comments

THE COLUMBUS DISPATCH
PROOF OF PUBLICATION

STATE OF OHIO, FRANKLIN COUNTY. SS:

Nicole Lewis
Sales Represenative

The Columbus Dispatch, a newspaper published at Columbus, Franklin County, Ohio, with a daily paid circulation of more than 25,000 copies, personally appeared and made oath that the notice of which a true copy is hereunto attached was published in The Columbus Dispatch for 2 Time(s) on

June 20, July 8, 2006

and that the rate charged therefore is the same as that charged for commercial advertising for like services.

Nicole Lewis

subscribed and Sworn on this 25th day of July 2006 as witness my hand and seal of office.

NOTARY PUBLIC - STATE OF OHIO

NOTARIAL SEAL STATE OF OHIO

VERONICA H. HILL
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES NOVEMBER 6, 2008

Public Workshops

on Environmental Study
and Part 150 Noise Study
concerning Proposed Expansion at
Port Columbus International Airport

The meetings will be held at:

Holiday Inn & Suites
750 Stelzer Road
Columbus, OH
Tuesday, July 11, 2006
5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH
Wednesday, July 12, 2006
5 p.m. - 8 p.m.

Project Website: www.airportsites.net/cmh-eis

The same information will be presented at both meetings. No formal presentations are planned-stop in anytime.

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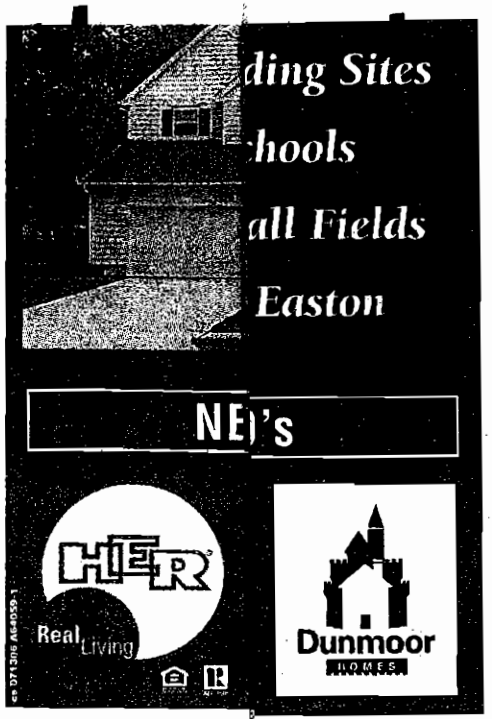

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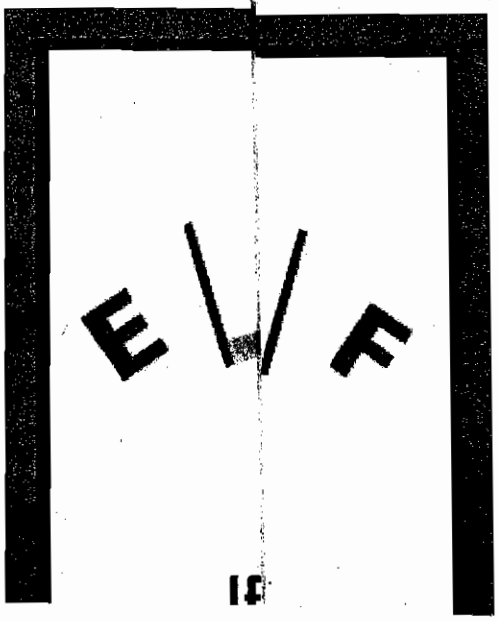

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Saint Matthew The Apostle
Catholic Church
807 Havens Corners Rd., Gahanna
Father Paul A. Noble, Pastor
Father Anthony Lonzo, Assoc. Pastor
In Residence: Msgr. Stephen J. Moloney
Mass Schedule:
Saturday 5pm
Sunday 8 & 10am, 12 Noon & 5pm
Holy Days 6:30 & 8:30am & 7pm
Weekday Mon.-Thurs 6:30 & 8:30am
Fri. & Sat. 8:30am
Sacrament of Reconciliation
Saturday 4-4:40 or by Appt. 471-0212
Catholic Inquire (RCIA) 471-2067

CHURCH OF CHRIST

Gahanna Church of Christ
4410 Johnstown Rd, Gahanna
855-9004
✷ Sunday School 9am ✷
Morning Svc 10am - Nursery Provided
✷ Wednesday Bible Study 7-8 pm✷

COMMUNITY

THE GAHANNA COMMUNITY
CONGREGATIONAL CHURCH
Rev Brian McGookey, Sr Pastor
470 Havens Corners Rd, 471-2168
(across from Lincoln High School)
♦ Sunday School 9:00 am
♦ Adult Bible Class 9:15 am
♦ Worship 10:30 am
♦ Junior Church during Worship
Nursery Provided ♦ Food pantry avail.

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Stephanie H. Boaz,
Email: mifflin@
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10:00 am Sunday Sc
Children
11:00 am Contempor
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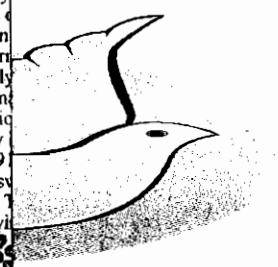

sponsors included AEP Ohio; Columbus Chapter of the National Black MBA Association; Columbus State Community College; Huntington Bank; NationalCity Bank and Peck, Shaffer & Williams, LLP. In-kind Group; Buckeye Printing and Mailing Services; KT Designs; Lasting Impressions; Live Technologies! and Randy Oberer, Oberer Florists of Dayton and Trace Ltd, Event Design.

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The same information will be presented at both meetings.
No formal presentations are planned – stop in anytime.

tional," Clegg said.

Clegg and other opponents of the reauthorization have charged that the reauthorization bill continues to stigmatize southern states for racial problems that happened four decades ago.

The pre-clearance provision, Clegg said, "made sense in 1965. It doesn't make sense in 2006. There is no evidence that disc is a bigger problem now in the covered jurisdictions than it is in the non-covered jurisdictions."

But Hillary Shelton, the Washington lobbyist for the NAACP, disagreed. Racial discrimination in voting remains a problem, Shelton said. And there is ample evidence that it remains a problem in the Deep South. Shelton pointed to Florida, particularly in the 2000 election, to show ongoing problems. There, he said, voting officials moved the polling place around Black Florida A & M University before the November election without telling the students, after there had been aggressive voter registration efforts on campus.

And Shelton said that

weatherization; and the Home Energy Assistance Program in Columbus and Franklin determined that this was in the best interests of the community residents.

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play rock 'n' roll
The Beach Boys keep going
Righteous Brothe kids are
Columbus' Dee, for their
Brothers aims fo ther 10 years
"danceable" roc for my sake,"
ing. "It's been a way of life
forever; we know no differ-
ent," he said. "Some people
travel on business trips for
weeks at a time. We travel
out from about 4 p.m. to 3

ay at the Springhouse Program
. Learn about Ohio's wild crea-

Highbanks Metro Park
66 U.S. 23 N., Lewis Center
ncredible Edibles, *2 p.m. Sat-*
y at the Nature Center. Learn
t the many edible and medicinal
s found in the woods.
f-Shirt Art, *2-4 p.m. Sunday* at
Nature Center. Bring a white T-
to decorate with nature designs.

Innis wood Metro Gardens
940 Hempstead Road,
Westerville
Little Sprouts: Soil, *10 a.m. Fri-*
at the Innis House. Children age
d younger can learn about the
ld beneath our feet.
Little Sprouts: Herbs, *10 a.m.*
rsday and Friday, July 6 and 7,
e Innis House. Children age 5 and
nger can use their five senses to
n about herbs.

kerington Ponds Metro Park
7680 Wright Road,
Canal Winchester
Firefly Night Hike, *9 p.m. Sat-*
y at the Glacier Knoll Picnic Area.
estigate the lives of fireflies on a
-mile walk.
Pond Life Display, *1-4 p.m. Sun-*
at the Glacier Knoll Picnic Area.

Public Workshops

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Public Workshops

on Environmental Study and Part 150 Noise Study Update concerning Proposed Expansion at

Port Columbus International Airport

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Holiday Inn & Suites
750 Stelzer Road
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Federal Aviation Administration
Detroit Airports District Office
11677 South Wayne Road, Suite 107
Romulus, MI 48174

Telephone: (734)229-2958
Email: CMHEIS@faa.gov

Project Website: www.airportsites.net/cmh-eis

The same information will be presented at both meetings. No formal presentations are planned – stop in anytime.

07-10-2006
FOR IMMEDIATE RELEASE

Public Workshops on Port Columbus Noise Compatibility, Airport Expansion

COLUMBUS – Public Information workshops for the Port Columbus International Airport Noise Compatibility Study will be held Tuesday, July 11 and Wednesday, July 12. These workshops will be held in conjunction with the Federal Aviation Administration's workshops scheduled to collect additional comments on the Environmental Impact Study for the proposed expansion at Port Columbus.

The Columbus Regional Airport Authority initiated the Noise Compatibility Study in 2006 to document the levels of noise from aircraft operations at Port Columbus. The Noise Compatibility Study at Port Columbus is intended to update existing noise exposure contours and develop a balanced and cost-effective plan to reduce current noise impacts from aircraft operations, where practical, and to limit the potential for future impacts. The FAA will be hosting workshops to gather oral and written public comments as it develops an Environmental Impact Statement that focuses on the airport's proposed construction of a new south runway to replace the current south runway, new taxiways, new terminal facilities in the midfield area and other airport improvements.

Residents, business owners and concerned citizens are encouraged to attend the workshops to provide input and ask questions. There will be no formal presentations, so people are invited to attend anytime during the workshops.

Details of the Workshops Dates:Tuesday, July 11 & Wednesday, July 12

Time:5 p.m. to 8 p.m.

Locations:Holiday Inn & Suites, 750 Stelzer Road, Columbus on July 11

Whitehall Community Park Activities Center, 402 N. Hamilton Road, Whitehall on July 12

For more information contact Angie Tabor, Communications Coordinator for the Columbus Regional Airport Authority, at (614) 239-4081 or ATabor@ColumbusAirports.com.

– End –

x close window

FEDERAL AVIATION ADMINISTRATION/COLUMBUS REGIONAL AIRPORT AUTHORITY
ENVIRONMENTAL IMPACT STATEMENT/PART 150 STUDY UPDATE
PUBLIC INFORMATION WORKSHOP #1
PORT COLUMBUS INTERNATIONAL AIRPORT
July 11, 2006
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)	SESSION ARE HERE FOR (PLEASE CHECK BOX)
DAVID WALL	4600 INTERNATIONAL GATEWAY COLUMBUS, OH 43219	(614) 239-4063	EIS ☑ PART 150 ☑
BERNARD MELESKI	PCCO INT'L GATEWAY COLUMBUS OH 43219	614-239-4042	EIS ☑ PART 150 ☑
Teena Poole	1805 Lancashire Rd. Columbus, Ohio 43219	614-446-7664	EIS ☐ PART 150 ☑
Elizabeth A. Johnson	1781 Lancaster Rd Columbus, Ohio 43219	614-252-3088	EIS ☐ PART 150 ☑
MARK KELBY	4600 INTERNATIONAL GATEWAY COLUMBUS, OHIO 43219	614-239-5014	EIS ☑ PART 150 ☑
Dave Clawson	4600 International Gateway Columbus, OH 43219	614-239-5059	EIS ☑ PART 150 ☑
Geraldine Dowe	1656 Geraldine Ave Columbus, Ohio 43219	614-252-3239	EIS ☑ PART 150 ☑
Sydia Yost and Kasie	2879 Meredith Dr Columbus, OH 43219		EIS ☐ PART 150 ☑
John Holmes	1836 BARHARBOR Rd. COLUMBUS OHIO 43229		EIS ☑ PART 150 ☑
Elizabeth Young	1872 San Nicholas Col-Ohio 43229		EIS ☒ PART 150 ☐
BRAD PARKER	P.O. BOX 397 BLACKLICK, OH 43004		EIS ☒ PART 150 ☒

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FEDERAL AVIATION ADMINISTRATION/COLUMBUS REGIONAL AIRPORT AUTHORITY
ENVIRONMENTAL IMPACT STATEMENT/PART 150 STUDY UPDATE
PUBLIC INFORMATION WORKSHOP #1
PORT COLUMBUS INTERNATIONAL AIRPORT
July 11, 2006
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NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)	SESSION ARE HERE FOR (PLEASE CHECK BOX)
Mike Foley Radio Station	540 Jack Gibbs Blvd Col, OH 43215	614-365-5555 KZ	EIS ☑ PART 150 ☐
Charles Clements	2545 NEWBURGH DR 43229	(614)471-9328	EIS ☐ PART 150 ☑
Milton Curry	1921 Edenburgh Dr 43219	614 475-3210	EIS ☐ PART 150 ☑
William A. Banks	815 Brentnell Ave 43219	614-258-6411	EIS ☐ PART 150 ☑
William C. Carter	1927 Edenburgh Dr. E. 43219	614.475.2872	EIS ☐ PART 150 ☑
Alfonso A. Morgan	2517 Burbank Dr	614-252-2820	EIS ☑ PART 150 ☑
Connie Tracy		614-239-3322	EIS ☑ PART 150 ☑
Wayne Rost	935 N. Cassady Ave 43219	614-252-9771	EIS ☑ PART 150 ☑
Dan Konik	WBNS-TV	460-3950	EIS ☑ PART 150 ☑
Elwood Rayford	2776 Yorkcliff Rd	475-1448	EIS ☒ PART 150 ☐
Mr. + Mrs Emanuel Frazier	2387 Dunkirk Dr 43219	471-9960	EIS ☐ PART 150 ☑

FEDERAL AVIATION ADMINISTRATION/COLUMBUS REGIONAL AIRPORT AUTHORITY
ENVIRONMENTAL IMPACT STATEMENT/PART 150 STUDY UPDATE
PUBLIC INFORMATION WORKSHOP #1
PORT COLUMBUS INTERNATIONAL AIRPORT
July 11, 2006

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NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)	SESSION ARE HERE FOR (PLEASE CHECK BOX)
SAMUEL ROUCHON	835 HARMONY PR, CANTON GA		EIS ☑ PART 150 ☑
			EIS ☐ PART 150 ☐
			EIS ☐ PART 150 ☐
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FEDERAL AVIATION ADMINISTRATION/COLUMBUS REGIONAL AIRPORT AUTHORITY
ENVIRONMENTAL IMPACT STATEMENT/PART 150 STUDY UPDATE
PUBLIC INFORMATION WORKSHOP #1
PORT COLUMBUS INTERNATIONAL AIRPORT
July 12, 2006
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)	SESSION ARE HERE FOR (PLEASE CHECK BOX)	
			EIS	PART 150
Tim Parker (Columbus Dispatch)	34 S. 3rd St.	461-5207	☒	☒
	43230		EIS	PART 150
Terry E. Helman	242 ST. JOHNS CT. N Gahanna	614-476-2154	☑	☑
	43230		EIS	PART 150
Mike McClain	283 Brookhaven Dr. N Gahanna	6144750452	☐	☒
	COLS		EIS	PART 150
Edith McIntosh	1960 Brocton Rd. 43219	(614) 475-4121	☐	☒
			EIS	PART 150
Bruce Johansson	WCMH-TV	614-263-5555	☒	☒
	Whitehall	614-236-9852	EIS	PART 150
Leo Knoblauch	1026 Westphal Ave Ohio 43227		☒	☐
			EIS	PART 150
V. L. Harris	4855 Ashley Dr. 43219	~~UNL~~	☑	☑
			EIS	PART 150
AYRAN JOHNSON	1883 BAR HARBOR RD 43219	614-476-6547	☒	☒
	43230		EIS	PART 150
Randy Meyer	364 Howland Drive	614-475-6539	☒	☒
			EIS	PART 150
Jill Foster	836 Sorrow Dr. Westerville 43081	614-841-1803	☒	☒
	~~700 GILBERT CO~~ 360 S. YEARLING 43213		EIS	PART 150
MATTHEW SMITH		614 338-3103	☒	☒

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FEDERAL AVIATION ADMINISTRATION/COLUMBUS REGIONAL AIRPORT AUTHORITY
ENVIRONMENTAL IMPACT STATEMENT/PART 150 STUDY UPDATE
PUBLIC INFORMATION WORKSHOP #1
PORT COLUMBUS INTERNATIONAL AIRPORT
July 12, 2006
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)	SESSION ARE HERE FOR (PLEASE CHECK BOX)	
			EIS	PART 150
Bruce L West	234 St Johns Ct N	614-471-2206	☒	☒
			EIS	PART 150
DAVID Miller	1524 E Long	614-258-6345	☐	☒
			EIS	PART 150
Brent L Howard	348 Cumberland Dr.	614-856-3464	☒	☒
			EIS	PART 150
			☐	☐
			EIS	PART 150
			☐	☐
			EIS	PART 150
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			EIS	PART 150
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City of Whitehall
LYNN OCHSENDORF
Mayor
Office: 614-338-3106
FAX: 614-338-3119
360 S. Yearling Rd.
Whitehall, OH 43213
E-mail:
mayorochsendorf@cityofwhitehall.com

Purpose of Tonight's Meeting

The Columbus Regional Airport Authority (CRAA) has proposed a replacement/relocation of the south runway and the development of a new passenger terminal to supplement the existing passenger terminal at Port Columbus International Airport (CMH). Before these projects can be started, the Federal Aviation Administration (FAA) will prepare an Environmental Impact Statement (EIS) for the proposed projects. The primary purpose of an EIS is to analyze and disclose the environmental impacts caused by proposed projects. Because there are potential noise impacts associated with the proposed projects, the CRAA is concurrently updating their Part 150 Noise Compatibility Study. The purpose of a Part 150 Study is to identify noise impacts and develop mitigation options or recommendations to help minimize noise impacts on the surrounding community.

Tonight's workshop is being held jointly with the EIS to encourage public comment on both studies. The results and recommendations of the Part 150 Study will be included in the EIS.

What is a Noise Compatibility Study?

Part 150 of the Federal Aviation Regulations provides guidance for conducting a Noise Compatibility Study. There are two components to the study process. The first component is to identify the Noise Exposure Maps (NEMs) and the second is to develop a Noise Compatibility Program (NCP). NEMs are the official noise contours for the airport and are prepared for an existing condition (2006/7) and for a five-year future condition (2012). It is anticipated that the proposed runway replacement/relocation would be completed in 2012

The NEMs must be prepared according to FAR Part 150 guidelines in regards to methodology, noise metrics, identification of incompatible land uses, and public outreach. NEMS graphically show where significant levels of annual average noise exposure on incompatible land uses around the airport are anticipated.

The NCP sets forth measures intended to mitigate the impacts of significant noise exposure on land uses that are considered by the FAA as incompatible with significant levels of aircraft noise. Levels of significance are identified in the Federal Aviation Regulations. Examples of incompatible land uses include: housing, schools, churches, nursing homes, parks, recreation areas, wildlife refuges or historic properties. Other measures in the NCP are identified to restrict the introduction of new incompatible land uses into locations exposed to significant noise levels.

FAR Part 150 Noise Compatibility Study
PORT COLUMBUS INTERNATIONAL AIRPORT
Public Information Workshops July 11/12, 2006

The FAA will review and approve the measures identified to limit noise impacts on local residents. An airport with an FAA-approved NCP may be eligible for funding assistance to implement the measures in the NCP.

Previous CMH Noise Study Planning

There is a long history of noise compatibility planning for the Port Columbus International Airport. The first Noise Compatibility Study was conducted in 1987 and was updated in 1993 and 1999. In 2001, the NEMs were updated to reflect the current noise exposure levels and to identify any new NCP actions. The boundaries of the sound insulation program were updated to match the 2001 NEM resulting in an additional 421 homes being eligible for sound insulation.

Public Comments Encouraged

The Noise Compatibility Study process is designed to encourage the public to comment on the study process and findings. Public information workshops will be held throughout the Part 150 Study at key points. In order to provide residents convenient access to the workshops, they are being held at two locations - one to the east of the airport and another to the west of the airport. Workshops will be conducted in an open house format where residents can attend anytime during workshop hours. Representatives of the FAA, airport staff, and consulting team will be available at various stations throughout the evening to answer questions or discuss specific issues.

The public is also encouraged to provide written comments regarding the study and its findings. Comment forms are located in the workshop area and at the registration table. You may either complete the forms this evening and leave them in the Comment Box or take them with you and mail them by ***July 31, 2006***. All comments post-marked by this date will be included in the final document. Please mail your comments on the Part 150 Study to:

Rob Adams
Part 150 Project Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, Ohio 45242
Phone (513) 530-1201

Comments may also be e-mailed to Mr. Adams at radams@landrum-brown.com or sent by fax at (513) 530-1278 (facsimile). All of the comments received at the public workshops will be reviewed by the airport and the consultant team for consideration in the study process as appropriate, and included in the final study document.

FAR Part 150 Noise Compatibility Study

PORT COLUMBUS INTERNATIONAL AIRPORT

Public Information Workshops July 11/12, 2006

Progress to Date

To date, the study has concentrated on data collection and the development of preliminary noise contours for the existing condition (2006/7) and the five-year future condition (2012). The following lists the tasks completed to date:

- Compiled and evaluated radar flight track and noise monitoring data.
- Conducted windshield survey of the entire airport area (week of May 29, 2006).
- Conducted field noise measurements (Week of June 19, 2006).
- Prepared preliminary existing (2006) and future (2012) baseline noise contours.

What's Next?

Following tonight's workshops, the next steps in the study process will concentrate on finalizing the noise exposure contours and the development of preliminary noise abatement and land use management alternatives. A date for the second set of public information workshops has not been set at this time, but is anticipated to occur in **December 2006**. Announcements will be published as soon as dates and locations are determined.

NO COMMENTS WERE RECEIVED AT THIS WORKSHOP

Planning Advisory Committee Meeting #2
December 5, 2006

Letter of Invite
Registration
Presentation
Summary Meeting Notes

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

U.S Department of Transportation
Federal Aviation Administration

November 3, 2006

Name
Title
Company
Address
City, State Zip

RE: Port Columbus International Airport
Environmental Impact Statement and Part 150 Noise Compatibility Study Update
Study Advisory Committee and Planning Advisory Committee Meetings

Dear Name:

Please mark your calendar for the second meeting of the Planning Advisory Committee and the Study Advisory Committee meetings for the Port Columbus International Airport Environmental Impact Statement and Part 150 Noise Compatibility Study Update. The meeting(s) are scheduled for:

Tuesday, December 5, 2006
Port Columbus International Airport
Emergency Operations Center

An agenda for the two meetings is enclosed with this letter. The SAC will meet from **10:00 a.m. to 10:50 a.m.** There will be a short break and the PAC will meet from **11:00 a.m. to 1:00 p.m.**

The Emergency Operations Center is located on the second level of the airport terminal. It can be accessed by an elevator located adjacent to the food court. There will be signage near this elevator directing you to the committee meetings. Please bring your parking ticket to the meeting with you for validation.

Our meeting(s) will end promptly at 1:00 p.m. We appreciate your interest in Port Columbus International Airport and your participation in these studies. Please confirm your attendance by responding to Melanie DePoy of Aerofinity, Inc by Monday, November 27, 2006. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Katherine S. Jones

Katherine S. Jones
Community Planner
Federal Aviation Administration

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY UPDATE

Columbus Regional Airport Authority
PLANNING ADVISORY COMMITTEE

December 5, 2006
11:00 a.m. to 1:00 p.m.

AGENDA

WELCOME

I. What is a Part 150?/Part 150 Process

II. How the Part 150 fits into the EIS Process

III. Existing Conditions Contours

V. Future Conditions Contours

VI. Noise Abatement, Land Use, and Program Implementation Alternatives Breakout Sessions

VII. Next Steps

VIII. Part 150 Schedule

11/3/06 PAC/SAC Distribution List

Mr. Thomas J. Browne
Managing Director of Airports
Air Transport Association of America
1301 Pennsylvania Avenue, NW – Suite 1100
Washington, DC 20004-1707

AOPA
Airports Division
421 Aviation Way
Frederick, MD 21701

Mr. Ron Moodespaugh
Director of Building Maintenance
Lane Aviation Corporation
4389 International Gateway
Columbus, OH 43219

Mr. Bill Tylka
Million Air
4130 East Fifth Avenue
Columbus, OH 43219

Mr. Tim Stehle
Director of Flight Operations
Limited Brands
4387 International Gateway
Columbus, OH 43219

Frank Martino, General Manager
American/American Eagle
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Bryan Levandusky, Manager
Northwest/Mesaba
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Brian Kennedy, Manager
United/United Express
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Bill Cumbow
Airline Pilots Association
262 McKenna Creek Drive
Gahanna, OH 43230

Mr. Richard G. Smith III
Executive Vice President
Net Jets
625 N. Hamilton Road
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Mr. Dan Wolfe, Manager
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3945 Bridgeway Avenue
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Mr. Ken Waite, Facility Manager
The Columbus International Air Center
4300 East Fifth Avenue
Columbus, OH 43219

Mr. Mark Dooley, Manager
Continental Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Patti Froehlich, Manager
Midwest Connect/Skyway
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Sandy Dicocco, Manager
US Airways/US Airways/America West
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Mr. Felix Scuilli, Manager
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Mr. James Bryant, Aviation Administrator
Ohio Office of Aviation
2829 W. Dublin-Granville Road
Columbus, OH 43219

Mr. Dave Wall
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Mr. Mark Kelby
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Ms. Stacey Heaton
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Mr. Elwood Rayford, Chair
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Mr. Columbus Russell, President
Cumberland Ridge Civic Association
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Mr. Jeff Lischak, Regional Manager
Chautauqua Airlines
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Mr. Chris Lentest, Manager
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4277 International Gateway
Columbus, OH 43219

Mr. Don Peters
Columbus Flight Watch
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Mr. Bernie Meleski
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Port Columbus International Airport
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Columbus, OH 43219

Mr. Dave Clawson
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Columbus, OH 43219

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Mr. Jimmie Moreland III, Chair
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Columbus, OH 43219

Ms. Grisetta Griffin
Brittany Hills Civic Association
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Columbus, OH 43219

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Mr. Bill Bellamy
City of Bexley
2242 E. Main St.
Bexley, OH 43209

Mr. Matthew Shad, Development Director
City of Whitehall
360 S. Yearling Road
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Ms. Bonnie Gard, Zoning Administrator
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200 South Hamilton
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Mr. John Brandt
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Sadicka White, Director of Development
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Gahanna, OH 43230

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Mr. Lee Brown
Development Department and Zoning Enforcement
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Mr. Kevin Costello
JetBlue Airways
118-29 Queens Blvd.
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Ms. Cathy Ferrari
Ohio State University
2160 West Case Road
Columbus, OH 43235

Mr. Alan Harding
Columbus Flight Watch
5731 Blinnton Place
Columbus, OH 43235-7205

Port Columbus International Airport
Environmental Impact Statement / Part 150 Noise Compatibility Study
Planning Advisory Committee
December 5, 2007

Attendance Sign-In	Name	Address	Phone/E-mail
Industry Groups			
	Air Transport Association Thomas J. Browne	1301 Pennsylvania Ave., NW-Suite 100 Washington, DC 20004-1707	
	Airline Pilots Association Bill Cumbow	262 McKenna Creek Drive Gahanna, OH 43230	(614) 337-8864
	AOPA Airports Division	421 Aviation Way Frederick, MD 21701	
Airport Business Partners			
	Net Jets Richard G. Smith III	4111 Bridgeway Avenue Columbus, OH 43219	(614) 239-5518 rsmith@netjets.com
	Lane Aviation Corporation Ron Moodespaugh	4389 International Gateway Columbus, OH 43219	(614) 237-3747 x157 moodespaugh@laneaviation.com
	Nationwide Insurance Company Dan Wolfe	3945 Bridgeway Avenue Columbus, OH 43219	(614) 249-8000 Wolfeda@nationwide.com
	Million Air Bill Tylka	4130 East Fifth Avenue Columbus, OH 43219	(614) 238-3900 billtylka@millionair-cmh.com
	The **Columbus International Air Center** Ken Waite	4316 East Fifth Avenue Columbus, OH 43219	(614) 236-0843 ken.waite@vcf.com

	Limited Brands Tim Stehle	4387 International Gateway Columbus, OH 43219	(614) 415-1800 Tstehle@Limitedbrands.com
Airlines			
	Continental/Continental Express Mark Dooley	4600 International Gateway Columbus, OH 43219	(614) 239-4060 mdoole@coair.com
	Air Canada Jazz No local contact	4600 International Gateway Columbus, OH 43219	
	American/American Eagle Frank Martino	4600 International Gateway Columbus, OH 43219	(614) 239-4245 Frank.Martino@aa.com
	Midwest Connect/Skyway Patti Froehlich	4600 International Gateway Columbus, OH 43219	(614) 238-7752
	Northwest/Mesaba Bryan Levandusky	4600 International Gateway Columbus, OH 43219	(614) 239-4313 Bryan.Levandusky@nwa.com
	US Airways/US Airways Express/America West Sandy Dicocco	4600 International Gateway Columbus, OH 43219	(614) 238-7515 Sandy_Dicocco@usairways.com
	United/United Express Brian Kennedy	4600 International Gateway Columbus, OH 43219	(614) 239-4286 Brian.F.Kennedy@ual.com
	Delta/Delta Connection Felix Sciulli	4600 International Gateway Columbus, OH 43219	(614) 239-4448 felix.sciulli@delta.com
	Southwest Joni Taylor	4600 International Gateway Columbus, OH 43219	(614) 238-7722 Joni.Taylor@wnco.com

	JetBlue Airways Kevin Costello	118-29 Queens Blvd. Forest Hills, NY 11375	(718) 709-3349 kevin.costello@jetblue.com
	Chautauqua Jeff Lischak	4600 International Gateway Columbus, OH 43219	(614) 235-1193 jlischak@flychautauqua.com
Agencies			
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	Federal Aviation Administration - CMH ATCT Chris Lenfest	4277 International Gateway Columbus, OH 43219	Chris.Lenfest@faa.gov
	Federal Aviation Administration - CMH ATCT Bruce Gibson	4277 International Gateway Columbus, OH 43219	(614) 338-4092 Bruce.Gibson@FAA.Gov
	Ohio Office of Aviation James Bryant	2829 W. Dublin-Granville Road Columbus, OH 43235	(614) 387-2341 james.bryant@dot.state.oh.us
	Ohio EPA Bob Hodanbosi	122 S. Front St. Columbus, OH 43216-1049	(614) 644-2270 bob.hodanbosi@epa.state.oh.us
Citizens/Citizen Groups			
	Columbus Flight Watch Don Peters	40 Massey Drive Westerville, OH 43081	(614) 890-1062 donpeters@columbus.rr.com
	Columbus Flight Watch Alan Harding	5731 Blinnton Place Columbus, OH 43235-7205	alan41ah@gmail.com
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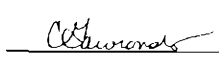
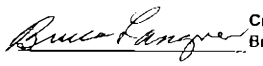
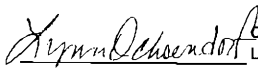
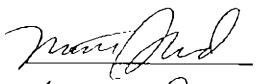
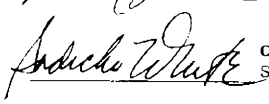
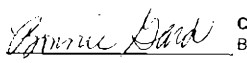
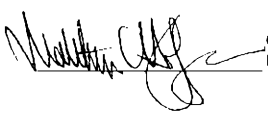
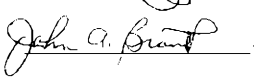
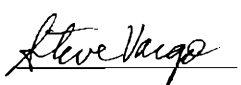
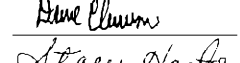
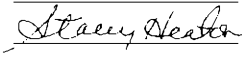
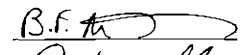
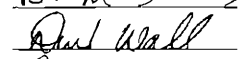
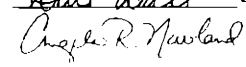
	Northeast Area Commission Elwood Rayford	2776 Yorkcliff Rd. Columbus, OH 43219	(614) 475-1448 jarfull@sbcglobal.net
	North Central Area Commission Jimmie Moreland III	1314 Sigsbee Avenue Columbus, OH 43219	
	Cumberland Ridge Civic Association Columbus Russell	1876 Mountain Oak Rd. Columbus, OH 43219	(614) 475-7277
	Brittany Hills Civic Association Grisetta Griffin	2463 Peekskill Drive Columbus, OH 43219	(614) 471-3947 ggriffi1@columbus.rr.com
	St. Mary's Civic Association Dr. Harold E. McDaniel	979 Wellington Blvd. Columbus, OH 43219	(614) 252-7782 hmcdaniel@columbus.rr.com
	Friends of Big Walnut Creek Susan Moeller	116 Mill Street Gahanna, OH 43230	(614) 470-9699 smoeller@friendsofbigwalnutcreek.com
Municipalities			
	City of Columbus Vince Papsidero	109 N. Front St., Ground Floor Columbus, OH 43215	(614) 645-8664
	City of Columbus Eagan Foster	109 N. Front Street Columbus, OH 43215	(614) 645-7738 elfoster@columbus.gov
	City of Columbus Tom Russell	910 Dublin Road Columbus, OH 43215	(614) 645-6311 tarussell@columbus.gov
	City of Columbus Alan McKnight	200 Greenlawn Ave. Columbus, OH 43223	(614) 545-3310 admcknight@columbus.gov

	City of Columbus Terri Leist	90 West Broad Street Columbus, OH 43215	(614) 645-5420 tsleist@columbus.gov
	**City of Columbus** Devayani Puranik	109 N. Front Street Columbus, OH 43215	(614) 645-0663 ddpuranik@columbus.gov
	**MORPC** Chris Gawronski	285 E. Main St. Columbus, OH 43215	(614) 233-4166 cgawronski@morpc.org
	MORPC Robert Lawler	285 E. Main St. Columbus, OH 43215	(614) 233-4160 rlawler@morpc.org
	**City of Bexley** Bruce Langner	2242 E. Main St. Bexley, OH 43209	(614) 235-8694
	City of Whitehall Raymond Ogden	360 S. Yearling Road Whitehall, OH 43213	(614) 237-8612 rogden@cityofwhitehall.com
	**City of Whitehall** Lynn Ochsendorf	360 S. Yearling Road Whitehall, OH 43213	(614) 338-3106 mayorochsendorf@cityofwhitehall.com
	**City of Whitehall** Matthew Shad	360 S. Yearling Road Whitehall, OH 43213	(614) 338-3103 development@cityofwhitehall.com
	**City of Gahanna** Sadicka White	200 South Hamilton Gahanna, OH 43230	(614) 342-4015 sadicka.white@gahanna.gov
	**City of Gahanna** Bonnie Gard	200 South Hamilton Gahanna, OH 43230	bonnie.gard@gahanna.gov

	**City of Gahanna** Matthew Huffman	200 South Hamilton Gahanna, OH 43230	
	**City of Reynoldsburg** John A. Brandt	7232 E. Main Street Reynoldsburg, OH 43068	(614) 322-6807 jbrandt@ci.reynoldsburg.oh.us
	City of Reynoldsburg Lucas Haire	7232 E. Main Street Reynoldsburg, OH 43068	(614) 322-6829 lhaire@ci.reynoldsburg.oh.us
	Jefferson Twp. Charles McCroskey	6545 Havens Road Blacklick, OH 43004	(614) 855-4265 cmccroskey@jeffersontownship.org
	Franklin County Lee Brown	280 E. Broad St., 2nd Floor Columbus, OH 43215	(614) 462-3095 rlbrown@franklincountyohio.org
	Ohio State University Cathy Ferrari	2160 West Case Road Columbus, OH 43235	(614) 292-5823 cferrari@osuairport.org
	**City of Columbus Schools** Dr. Gene Harris	270 East State Street Columbus, OH 43215	(614) 365-5000
	Columbus Regional Airport Authority		
	Dave Clawson	4600 International Gateway Columbus, OH 43219	
	Stacey Heaton	"	
	Mark Kelby	"	
	Bernie Meleski	"	
	Dave Wall	"	
	Angela Newland		

Additional Attendees

PLEASE PRINT

Attendance Sign-In	Name	Address	Phone/Email
Claudia Lammers	CLAUDIA LAMMERS	THE OHIO STATE UNIVERSITY MARCH	clammers@osu.edu
Douglas E. Hammon	Douglas E. Hammon	OSU Airport	
Bethany J. Miller	City of Bellbrook	1650 S. Hamilton Rd	347 4015
Matt Hagemann	Bellbrook	200 S. Hamilton Rd 45305 45230	342-4015
Brad Davidson		11677 S. Wayne Rd, Suite 107, Romulus, MI 48174	734-229-2940

Port Columbus International Airport

FAR Part 150 Noise Compatibility Study

Planning Advisory Committee Meeting 2

December 5, 2006

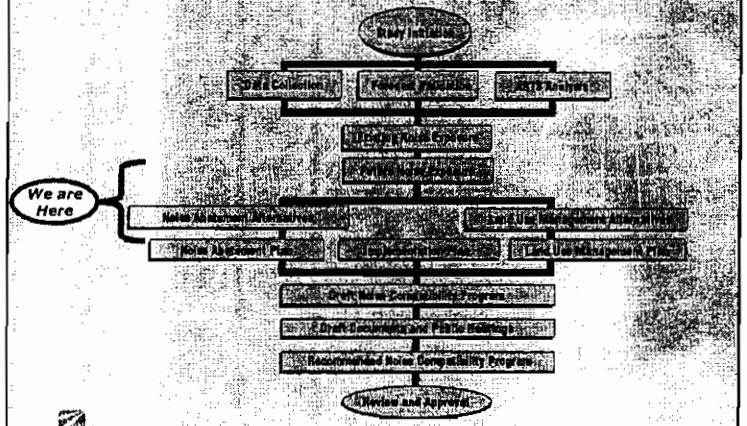
Planning Advisory Committee

Welcome and Introductions

Today's Agenda

- Overview of a Part 150 Study
- Essential Elements of a Part 150 Study
- Existing Noise Exposure
- Future Noise Exposure
- Noise Abatement, Land Use, and Program Implementation Alternatives Breakout Session
- Next Steps
- Part 150 Schedule

Overview of a Part 150 Study



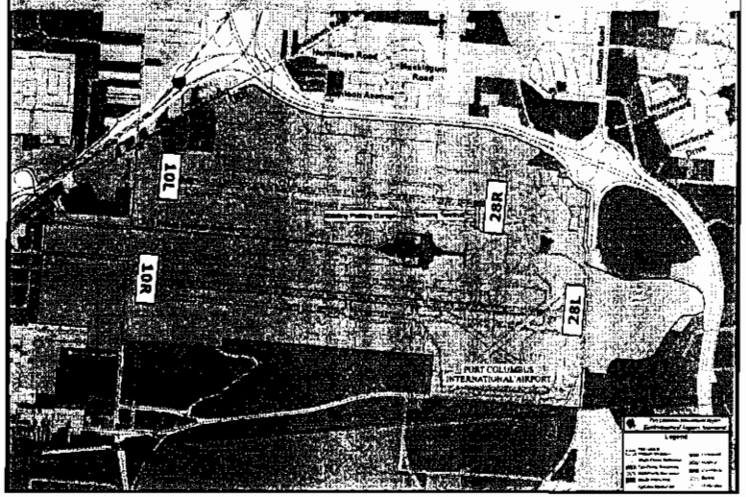
Overview of a Part 150 Study

- **Columbus Regional Airport Authority (CRAA) is the sponsor of the Part 150 Study**
- **Sponsor's Proposed Project from the Environmental Impact Statement (EIS) will be used as the Future Baseline in the Part 150 Study**
- **If the EIS process concludes that another alternative is more viable, the Part 150 Study will evaluate that alternative**

Essential Elements of a Part 150 Study

- **Noise Exposure Maps:**
  - Description of the noise levels for existing and future conditions
    - Future condition should take into account any changes (physical or operational) that may have an effect on the noise levels around the airport.
- **Noise Compatibility Program:**
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement
    - Land Use Mitigation
    - Implementation Measures
- **Public Involvement:**
  - Public Workshops/Planning Advisory Committee

Existing (2006) Noise Exposure Map



Existing (2006) Noise Exposure Map

- **Operating Levels/Fleet Mix**

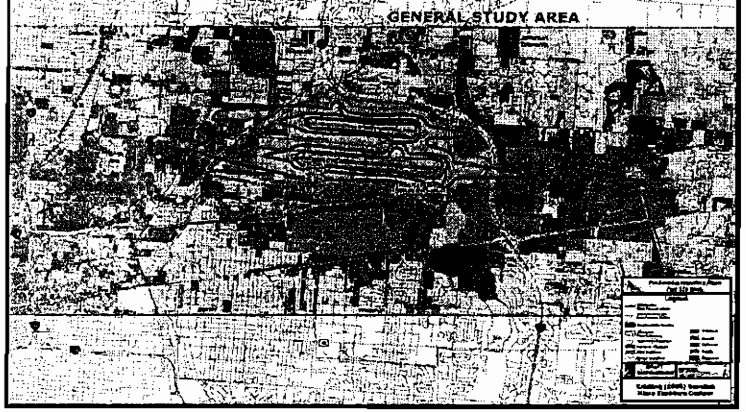
Category	2006 Annual Operations	2006 Average Annual Day Operations	Percent
Air Carrier Jets	42,340	116	22%
Regional Jets	83,220	228	41%
Commuter Props	9,490	26	5%
General Aviation Jets	29,200	80	15%
General Aviation Props	32,850	90	17%
Total	197,100	540	100%

- Air Carrier operations primarily made up of Boeing 737, Airbus 319/320, and McDonnell-Douglas MD80 and DC9.
- Commuter operations include regional jets (Canadair and Embraer) and turboprops.
- Business jets and single/twin-engine propeller aircraft make up the general aviation fleet.

Existing (2006) Noise Exposure Map

- **Runway Use**
  - West Flow (arrive and depart Runways 28L and 28R)
    - 75% of the operations
  - East Flow (arrive and depart Runways 10L and 10R)
    - 25% of the operations
  - Southwest recently relocated to Terminal A, increasing the use of Runway 10R/28L for large jet aircraft
- **Flight Tracks**
  - Flight tracks are lines that represent the ground path of an aircraft as it arrives or departs the airport.
  - Radar data was collected from the Airports Noise and Operations Management System (ANOMS) representing each season.

Existing (2006) Noise Exposure Map



Existing (2006) Noise Exposure Map

- **Noise Exposure Contour Shape and Size**
  - East of the airport, the noise contour primarily reflects usage by aircraft arriving to the airport (thinner noise contours).
  - West of the airport, the noise contour primarily reflects usage of aircraft departing from the airport (wider and rounder noise contours).
  - Contour shape and size also reflects a heavier use of Runway 10R/28L

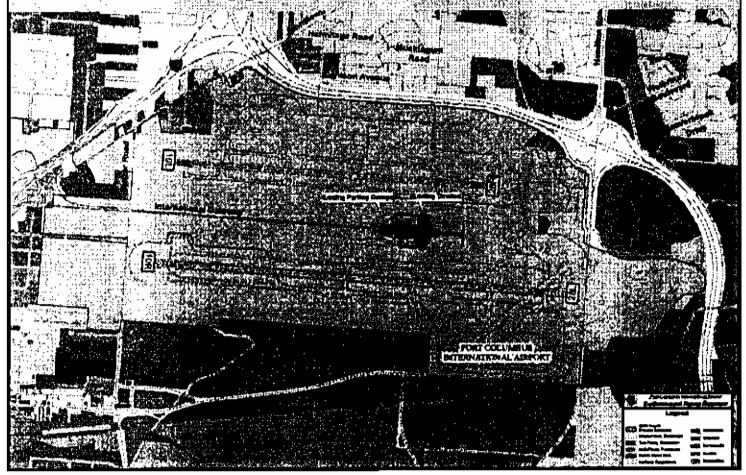
Existing (2006) Noise Exposure Map

Housing Counts				
Columbus	65-70 DNL	70-75 DNL	75+ DNL	Total
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	1	0	0	1
Columbus Total	1	0	0	1
Hilltop				
Currently in Sound Insulation Program Boundary	13	0	0	13
Outside Current Sound Insulation Program Boundary	0	0	0	0
Hilltop Total	13	0	0	13
Gahanna				
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	0	0	0	0
Gahanna Total	0	0	0	0
Grand Total	14	0	0	14
Population				
Columbus	2	0	0	2
Hilltop	32	0	0	32
Gahanna	0	0	0	0
Grand total	34	0	0	34
Churches	1	0	0	1
Schools	0	0	0	0

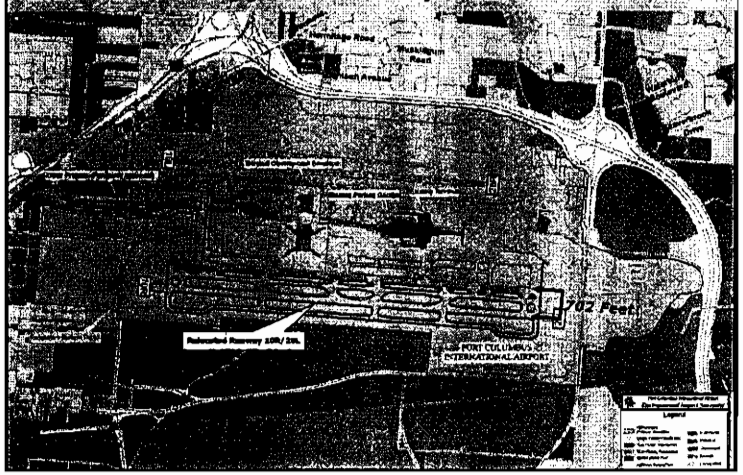
Future Baseline (with Relocated Runway) Noise Exposure Contours

- **This condition includes no noise abatement procedures other than what is currently in place today**
  - The purpose of the Part 150 Study is to identify, evaluate, and recommend noise abatement procedures to help reduce the impact of the runway relocation.
- **Changes from the Existing 2006 condition include:**
  - The location of Runway 10R/28L – 702 feet south
  - Increase in annual operations

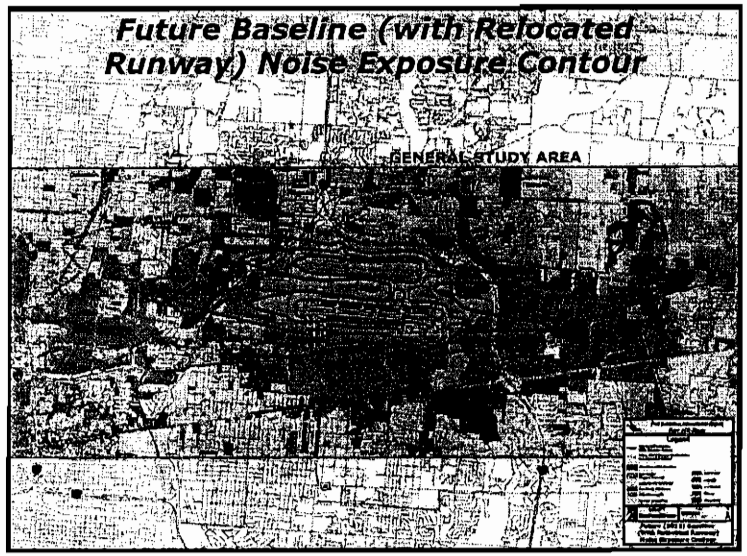
Future Baseline (with Relocated Runway) Noise Exposure Contours

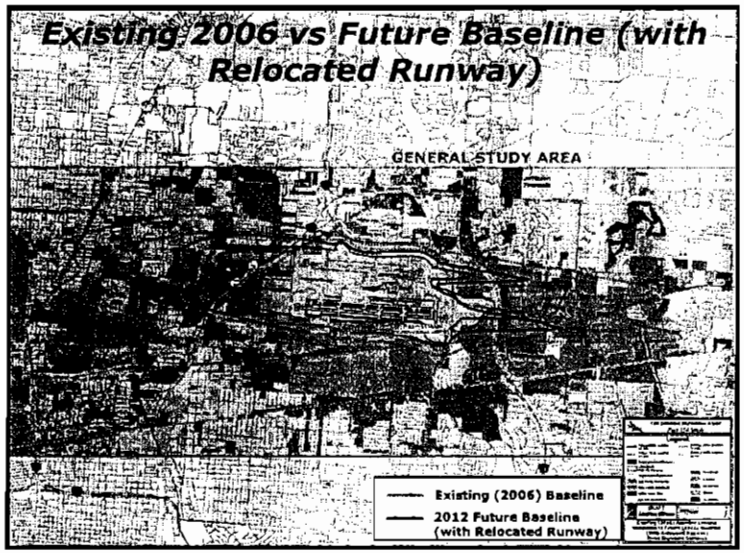


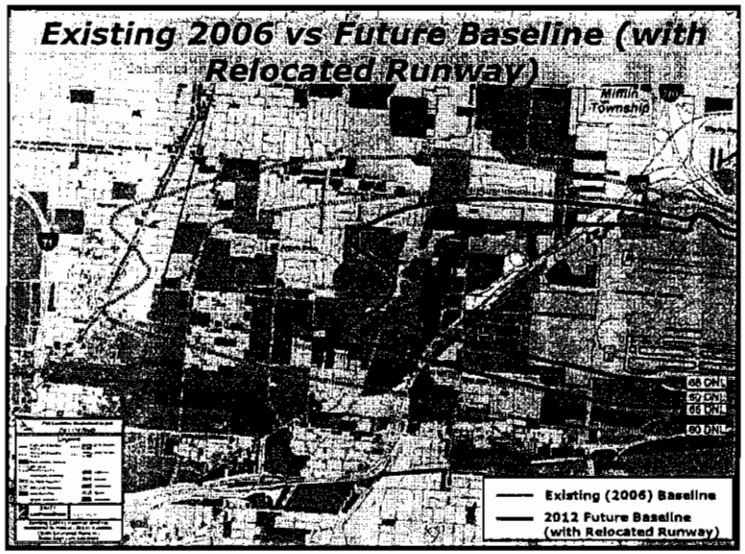
Future Baseline (with Relocated Runway) Noise Exposure Contours

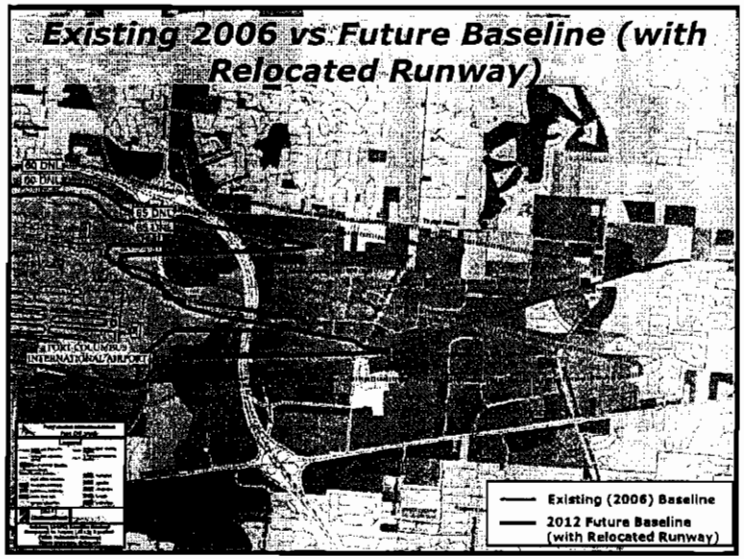


Future Baseline (with Relocated Runway) Noise Exposure Contour









Future Baseline (with Relocated Runway) Noise Exposure Contours

Housing Counts				
Columbus	65-70 DNL	70-75 DNL	75+ DNL	Total
Currently in Sound Insulation Program Boundary	389	0	0	389
Outside Current Sound Insulation Program Boundary	342	0	0	342
Columbus Total	731	0	0	731
Mifflin				
Currently in Sound Insulation Program Boundary	61	0	0	61
Outside Current Sound Insulation Program Boundary	0	0	0	0
Mifflin Total	61	0	0	61
Gahanna				
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	0	0	0	0
Gahanna Total	0	0	0	0
Grand Total	792	0	0	792
Population				
Columbus	1,806	0	0	1,806
Mifflin	151	0	0	151
Gahanna	0	0	0	0
Grand total	1,957	0	0	1,957
Churches	0	0	0	0
Schools	1 (1 insulated)	0	0	1

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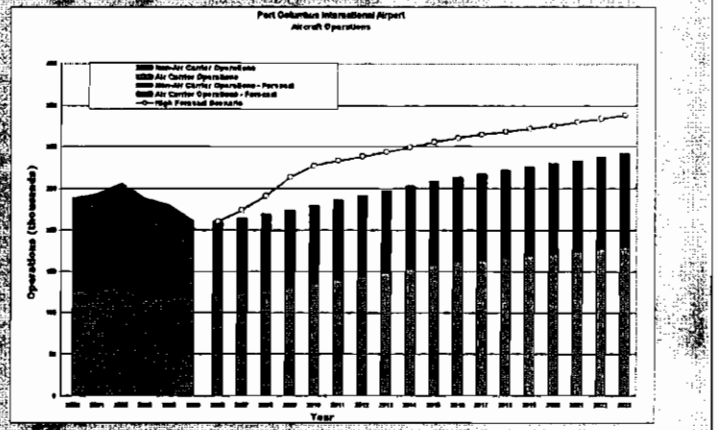
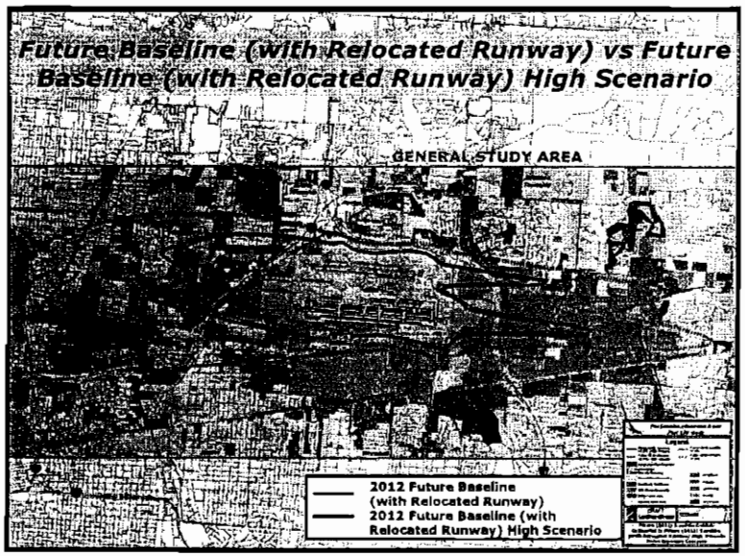
High Scenario Noise Contours

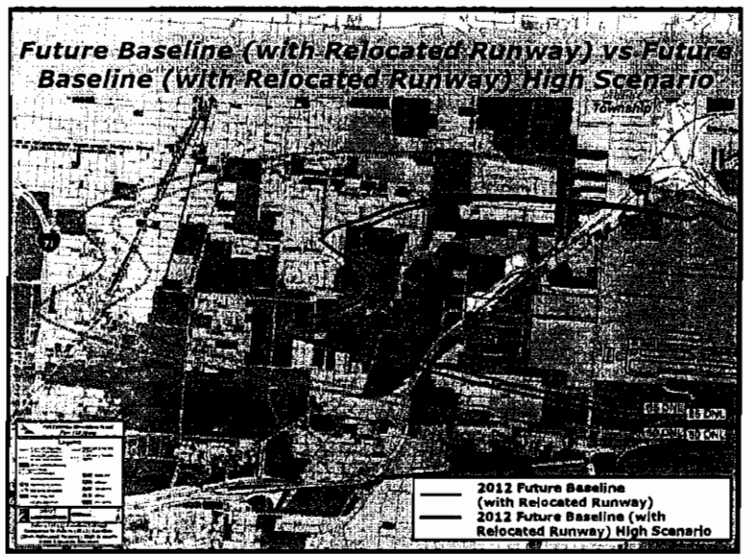


Future Baseline (with Relocated Runway) High Scenario

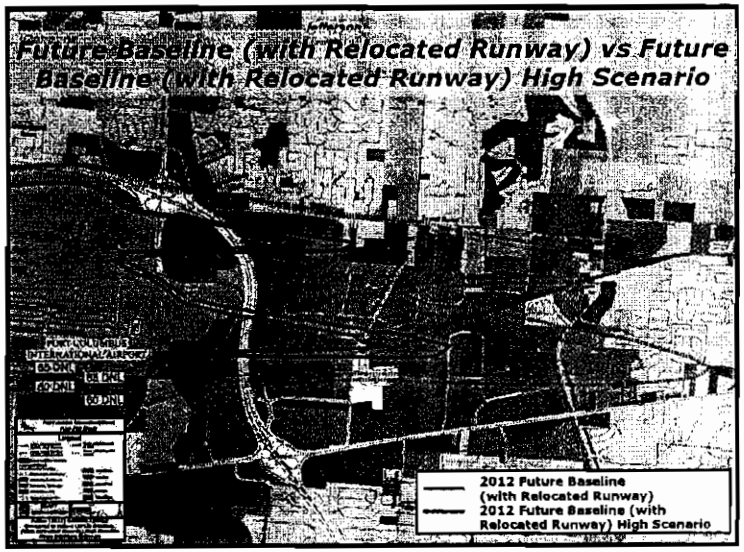
Future Baseline (with Relocated Runway) vs Future Baseline (with Relocated Runway) High Scenario



Future Baseline (with Relocated Runway) vs Future Baseline (with Relocated Runway) High Scenario



Future Baseline (with Relocated Runway) vs Future Baseline (with Relocated Runway) High Scenario



Future Baseline (with Relocated Runway) High Scenario

Housing Counts				
Columbus	65-70 DNL	70-75 DNL	75+ DNL	Total
Currently in Sound Insulation Program Boundary	822	0	0	822
Outside Current Sound Insulation Program Boundary	582	4	0	586
Columbus Total	1,404	4	0	1,408
Hilliard				
Currently in Sound Insulation Program Boundary	43	1	1	45
Outside Current Sound Insulation Program Boundary	39	0	0	39
Hilliard Total	82	1	1	84
Gahanna				
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	0	0	0	0
Gahanna Total	0	0	0	0
Grand Total	1,486	5	1	1,492
Population				
Columbus	3,510	8	0	3,518
Hilliard	128	3	2	133
Gahanna	2	0	0	2
Grand total	3,640	11	2	3,653
Churches	4	0	0	4
Schools	2 (1 Identified)	0	0	2

Landrum & Brown

Summary of Noise Impacts

Housing Counts	65-70 DNL	70-75 DNL	75+ DNL	Total
2006 Existing Baseline	14	0	0	14
2012 Future Baseline (with Relocated Runway)	792	0	0	792
2012 Future Baseline (with Relocated Runway) High Scenario	1,484	2	0	1,486
Population				
2006 Existing Baseline	34	0	0	34
2012 Future Baseline (with Relocated Runway)	1,957	0	0	1,957
2012 Future Baseline (with Relocated Runway) High Scenario	3,653	11	2	3,673

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Summary of Noise Contours

Condition	Operating Levels		Airfield Layout	# Homes in 65+ DNL		
	Annual	AAD*		In Sound Insulation Boundary	Outside Sound Insulation Boundary	Total
Existing (2006) Baseline	197,100	540	Existing	13	1	14
2012 Future Baseline (with Relocated Runway)	241,600	662	Relocated Runway	445	347	792
2012 Future Baseline (with Relocated Runway) High Scenario	288,400	790	Relocated Runway	899	707	1606

* AAD – Average Annual Day

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Elements of a Noise Compatibility Program

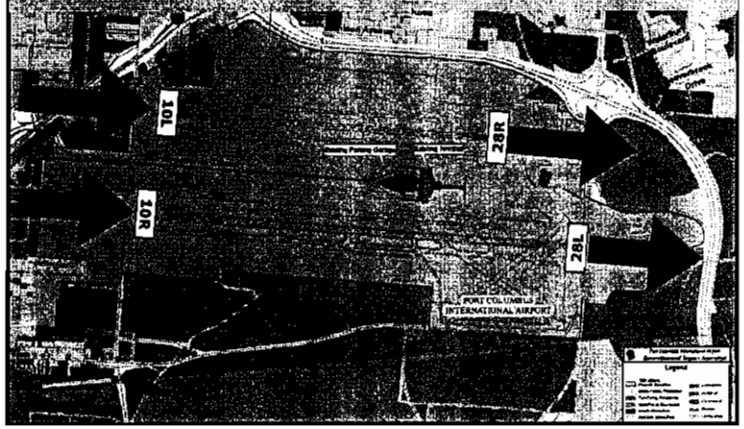
- Noise Abatement Alternatives
  - Flight Track Location
  - Runway Use
  - Flight Management
  - Ground Activity Restrictions
  - Facility Modifications
- Land Use Management Alternatives
  - Preventive
  - Corrective
- Implementation Alternatives
  - Measures designed to assist the implementation of the Noise Compatibility Program (NCP)

Current Noise Abatement Measures

- Runway Use
  - Noise Abatement Procedures Affecting Runway Use
    - Maximize east flow (arrivals and departures on Runways 10L/R).
    - Unless wind, weather, runway closure, or loss of navaids dictate otherwise, between the hours of 10:00 pm and 8:00 am
      - Runways 28L or 10R are assigned jet aircraft.
      - Jet aircraft with Stage 3 engines may use Runway 10L/28R after 7:00 am.

Current Noise Abatement Measures

- Maximize east flow during calm winds (arrivals and departures on Runways 10L/R).



Current Noise Abatement Measures

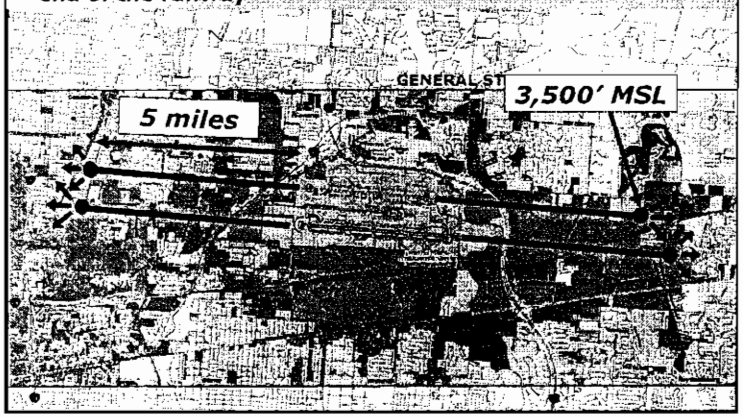
- Between the hours of 10:00 pm and 8:00 am
  - Runways 28L or 10R are assigned jet aircraft.
  - Stage 3 jet aircraft may use Runway 10L/28R after 7:00 am.

Current Noise Abatement Measures

- **Flight Tracks**
  - Noise Abatement Procedures Affecting Flight Tracks:
    - Departing jet aircraft shall not be turned until reaching an altitude of 3,500 feet or a point 5 miles from the departure end of the runway
    - 10:30 pm to 7:00 am – Runway 10R departures:
      - Jet aircraft will be assigned 100 degree heading.
      - Propeller aircraft will begin to turn at 2.2 DME of 10L Localizer. The turn shall be no further than 15 degrees (085 to 115) and will maintain that heading until reaching 3,000 MSL or 3 miles from runway end.

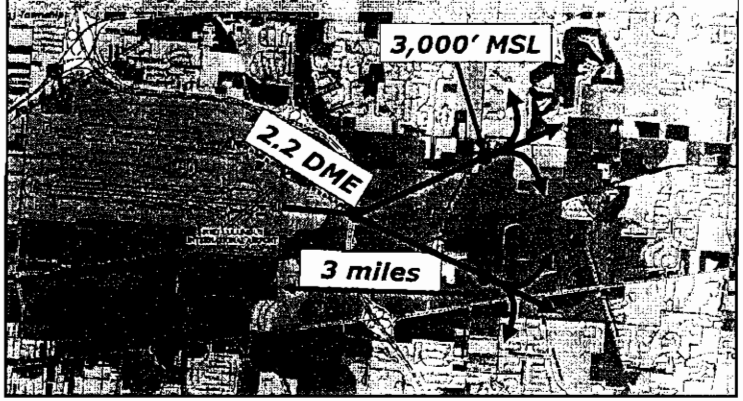
Current Noise Abatement Measures

- **Departing jet aircraft shall not be turned until reaching an altitude of 3,500 feet or a point 5 miles from the departure end of the runway**



Current Noise Abatement Measures

- **Between 10:30 pm to 7:00 am – Runway 10R departures:**
  - Propeller aircraft will begin to turn at 2.2 DME of 10L Localizer. The turn shall be no further than 15 degrees (085 to 115) and will maintain that heading until reaching 3,000' MSL or 3 miles from runway end.



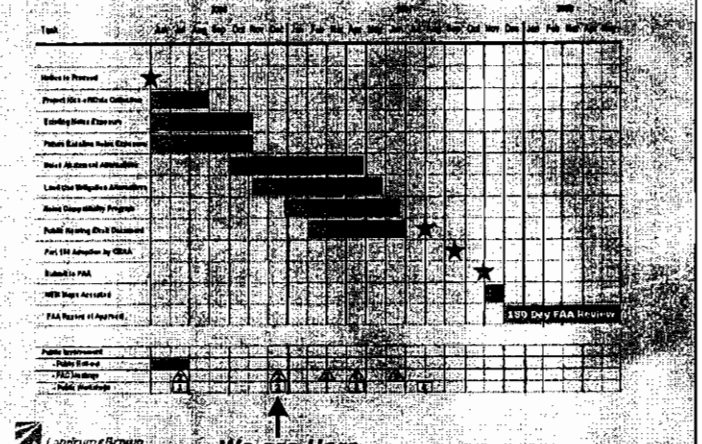
Small Group Discussions

- **Purpose:** To gather ideas from the members of the PAC on methods to reduce noise in the surrounding communities
- **Time:** 30 minutes
- **Next Steps:** All ideas will be summarized at the end of our session today.

Next Steps

- Tonight - Public Information Workshop
  - Holiday Inn
  - 750 Stelzer Road
  - Columbus, Ohio
  - 5:00 p.m. to 8:00 p.m.
- Tomorrow Night - Public Information Workshop
  - Whitehall Community Park Activities Center
  - 4402 North Hamilton
  - Whitehall, Ohio
  - 6:00 p.m. to 8:00 p.m.
- Compile Suggested Alternatives
- Begin Evaluation of Alternatives
- Next PAC Meeting in Spring of 2007

FAR Part 150 Schedule



Questions/Answers

Airport Planning Beyond the Ordinary

December 21, 2006

Name
Title
Company
Address
City, State Zip

RE: Port Columbus International Airport
EIS and Part 150 Noise Compatibility Study Update
SAC and PAC Meeting Minutes

Dear Name:

Enclosed are meeting minutes for the December 5, 2006 Study Advisory Committee (SAC) and Planning Advisory Committee (PAC) meetings for the Port Columbus International Airport Environmental Impact Statement (EIS) and Part 150 Noise Compatibility Study Update.

For those who were unable to attend, we are also sending a copy of the handouts that were given at each of the meetings.

As always, we appreciate your interest in Port Columbus International Airport and thank you for your participation in these studies. The next PAC meeting is anticipated to occur in late February or early March, 2007. A simultaneous PAC/SAC meeting will follow in April, 2007. A meeting reminder and agenda will be sent in advance of the meeting.

Sincerely,

Melanie K. DePoy
Managing Principal

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MEETING MEMO

MEETING	Port Columbus International Airport FAR Part 150 Noise Compatibility Study Planning Advisory Committee – Meeting 2
MEETING DATE	December 5, 2006

ATTENDING

A meeting attendance list is attached.

DISCUSSION SUMMARY

Rob Adams, Landrum & Brown, opened the meeting by welcoming participants and thanking them for their participation. Mr. Adams explained that the Planning Advisory Committee (PAC) meeting was being held simultaneous with the Study Advisory Committee (SAC) for the Environmental Impact Statement (EIS) because the results of the Part 150 will be considered in the EIS as there are potential noise impacts associated with the proposed development projects.

Mr. Adams reviewed the day's agenda and the study process. He explained that the study initiation, data collection, forecast validation and ARTS (radar data) analysis is complete and that existing and future noise contours have been prepared. The existing noise contours represent today's noise exposure (2006) and the future contours represent noise exposure five years in the future. The next step in the study is to identify noise abatement and land use alternatives as these provide a basis for noise reduction before it occurs. The focus of today's meeting is a discussion of potential noise abatement measures.

Mr. Adams reviewed the elements of a Part 150 Study: Noise Exposure Maps, Noise Compatibility Program and Public Involvement. He explained that the Noise Exposure Maps are a description of noise levels for existing and future conditions. The Noise Compatibility Program includes measures to reduce, minimize and/or mitigate aircraft noise and land use conflicts. Public involvement allows members of the community to review and comment on the measures being considered in the Part 150 Study. Today's meeting is a part of the public involvement program as well as the workshops scheduled for tonight and tomorrow evening (December 5 and 6, 2006).

Noise Exposure

Sarah Potter of Landrum & Brown reviewed the existing noise exposure maps. She explained that this information had been slightly refined from the previous meeting. Ms. Potter reviewed the information that had been used to develop the noise contours. Information included actual and anticipated operating levels, type of aircraft using and anticipated to use the airport, runway use, and flight tracks. She reviewed the east and west flow flight track information and explained the operations that typically represent these flight tracks.

Ms. Potter explained that shape and size of the existing (2006) noise exposure maps. She noted that east of the airport, the noise contour primarily reflects usage by aircraft arriving to the airport. These are typically thinner noise contours. West of the airport, the noise contour primarily reflects usage of the airport by departing aircraft. These contours are wide and rounder. This typically reflects the fact that departing aircraft generally generate more noise than arriving aircraft. She noted that the contour shape and size also reflects heavier use of Runway 10R/28L, the airport's south parallel runway.

Ms. Potter reviewed the number of incompatible land uses identified as being in the 2006 Noise Exposure Map. Fourteen homes have been identified as being in the existing 65 DNL noise contour. Only one of these homes is not currently in the Airport Authority's sound insulation program. One church has also been identified as being in the existing 65 DNL noise contours. There are no schools within the existing 65 DNL noise contour.

Future Noise Contours

Ms. Potter explained that the future baseline noise contours represent conditions as they will exist with the airport's south runway relocated 702 feet south of its existing location. The future contour also reflects forecast increases in annual operations. No other noise abatement procedures, other than those currently in place today have been considered in this contour.

She showed the future baseline noise contours with the relocated runway and noted that the shape of the contour remains relatively the same as the existing (2006) noise contour with the exception of the relocated runway. The increase in the size of the noise contour reflects the increase in operations.

Preliminary counts of the impacts associated with the future baseline (with the relocated runway) indicate that 792 homes, representing 1,957 people will be potentially exposed to noise 65 DNL or higher. Of these homes, 445 are in the current sound insulation program boundary. No churches are anticipated to be in the 65 DNL or higher noise contours. One school has been identified as being in the future baseline (with the relocated runway) 65 DNL noise contour. This school is located within the current sound insulation program boundary.

Future noise contours have also been prepared to reflect the relocated runway and the growth in aircraft operations that could occur based upon a high growth scenario which includes the potential for the addition of SkyBus, a start-up low-cost, or ultra low-cost carrier anticipated to begin operations at Port Columbus International Airport in 2007. These contours are essentially the same shape as the future baseline with the relocated runway but increase in size based upon a potential 19% increase in operations associated with SkyBus.

The future baseline high scenario with the relocated runway indicates that 1,404 homes representing 3,468 people will be potentially exposed to 65 DNL or higher noise contours. Of these homes 697 homes are within the current sound insulation program boundary. Four churches and one school are also anticipated to be within the future baseline high scenario 65 DNL noise contour. The school is located within the current sound insulation program boundary.

Rob Adams emphasized that it is important to recognize that the three baseline noise contours identify the potential "problem." The next step in the process is to look at ways to reduce the potential noise impacts.

Sadicka White of the City of Gahanna noted that they are concerned about the noise impact to office and industrial development in their area. Rob Adams noted that according to FAA Guidelines, offices are compatible with 70 DNL noise levels. Ms. White noted that a company had recently located from an office complex due to noise and that the City has plans to build additional office complexes in this area. Mr. Adams suggested that the developers of the office complexes consider sound attenuation measures.

Elements of a Noise Compatibility Program

Ms. Potter detailed the three elements of a Noise Compatibility Program including: noise abatement alternatives, land use management alternatives and implementation measures. Ms. Potter also explained the noise abatement measures currently in use. Following this explanation, Melanie DePoy of Aerofinity, a member of the consulting team conducting the Part 150 Study, lead the group through an exercise to brainstorm potential noise abatement alternatives. Committee members were divided into four groups, each group reporting their suggestions at the end of the meeting. A summary of measures suggested by the Committee is attached.

Next Steps

Mr. Adams explained that Public Information Workshops were to be held this evening and the next evening. This evening's Workshop would be held at the Holiday Inn and Suites at 750 Stelzer Road and tomorrow evening's Workshop would be held at the Whitehall Community Park Activities Center at 402 N. Hamilton Road. The same information would be presented at both Workshops. The next PAC meeting is expected to be held in late February or early March, 2007.

The next steps in the study process are to compile and begin evaluation of alternatives.

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 STUDY
ALTERNATIVES BRAINSTORMING

FLIGHT TRACKS

- Potential divergent turn (15 degrees) on south runway (Runway 23L) could reduce impacts and increase efficiency of airport during peak times
- Divergent turn in excess of 15 degrees over a more compatible corridor
- Is the prop departure procedure relevant since AirNet moved to LCK?
- Jet flight tracks turning at night - similar to props
- Arrival patterns west of the airport – can the ac stay higher before reaching the outer marker

OPERATIONAL CONSIDERATIONS

- Refine the calm wind preference (Runway 10R) to take into account winds at altitude (pilot reports, forecast, +20 knots)
- Greater use of south runway
- Continuous descent approach
- Steeper departure profiles
- Flight management procedures – Orange County

NOISE

- Noise over Whitehall – shaking windows
- Better jet engines (Stage 4)
- Curfews on use of airport
- More efficient noise barrier on north side – upgrade building materials/technology
- Air service is critical and there will be trade-offs for noise
- Using additional noise metrics to help people better understand the impacts and concerns. Supplement the 65 DNL to help plan for future land use controls
- More noise monitors
- Phasing out stage 3 jets
- Restricting stage 2 business jets
- Businesses are impacted by noise
- Additional landscaping to provide a buffer for the noise
- Construct a highway barrier on 270
- Improve building construction materials
- Reducing vehicular traffic into airport by adding public transportation to help reduce other noise sources

LAND USE/ZONING

- Change FAA guidelines on land use compatibility to include businesses as noise sensitive
- Lower significant noise impact threshold from 65 DNL to 60 DNL
- Establish a fixed boundary for land use planning versus solely relying on the DNL noise contour which changes over time
- Northeast Area Commission – concerned about normal growth impacts

- Concern about impacts to Churches/Schools/Businesses
- Discussing current restrictions for building
- Increase discussions with economic development jurisdictions
- New development to the west

COMMUNITY OUTREACH

- Inform business/homes of noise in the area
- Additional advertising for public workshops
- Increasing responsibility of the airport to distribute information about development projects
- Improve community outreach – more websites/newsletters
- Better communication of noise sensitive areas with the airlines
  - Better/more signs at end of runway
  - ATIS
- Provide the noise monitoring reports to the PAC

AIRFIELD

- Look at options to meet other airport meters - hold apron on Runway 10R to help meet flow times

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study
Planning Advisory Committee Attendance
Tuesday, December [illegible], 2006

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Public Information Workshop #2
December 5, 2006 & December 6, 2006

Newspaper Notice
Postcard Mailing
CRAA Press Release
Registration
Handout
Comments

THE COLUMBUS DISPATCH
PROOF OF PUBLICATION

STATE OF OHIO, FRANKLIN COUNTY. SS:

Kris Allbright
Special Projects/Training Manager

The Columbus Dispatch, a newspaper published at Columbus, Franklin County, Ohio, with a daily paid circulation of more than 25,000 copies, personally appeared and made oath that the notice of which a true copy is hereunto attached was published in The Columbus Dispatch for 2 Time(s) on

November 14, December 2, 2006

and that the rate charged therefore is the same as that charged for commercial advertising for like services.

Kris Allbright

subscribed and Sworn on this 6th day of December 2006 as witness my hand and seal of office.

Veronica H. Hill

NOTARY PUBLIC - STATE OF OHIO

NOTARIAL SEAL STATE OF OHIO

VERONICA H. HILL
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES NOVEMBER 6, 2008

Public Workshops

on Environmental Study
and Part 150 Noise Study
concerning Proposed Expansion at
Port Columbus International Airport

The meetings will be held at:

Holiday Inn & Suites
750 Stelzer Road
Columbus, OH
Tuesday, December 5, 2006
5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH
Wednesday December 6, 2006
5 p.m. - 8 p.m.

Project Website: www.airportsites.net/cmh-eis

The same information will be presented at both meetings. No formal presentations are planned- stop in anytime.

Community

The Links gift $1 million to the N

The National President of The Links, Incorporated, Dr. Gwendolyn Lee, announced the $1 million grant to the National Civil Rights Museum to support the mission of the museum.

"We are pleased to announce that this grant will preserve the legacy of a people and a movement that defined social action and social change across this nation," said Lee. "With the deaths of Coretta Scott King and Rosa Parks, women who were stalwarts in the Civil Rights Movement, it is the right moment in time for The Links Inc. to take this historic step in capturing the contributions of those who paved the way for social and economic justice for African Americans."

The funds will be used to dents and the general public about the importance of preserving civil and social rights progress in this country," said Beverly Robertson, president of the National Civil Rights Museum. "It's appropriate that we officially make the announcement of this gift on the day of the 2006 Freedom Award, where we also honor individuals who have spent their lives in the fight for social, civil and economic justice."

The Links Educational and Cultural Center will serve as a national resource for teachers and their students to learn about the strategies of non-violence used in the 1960s to foster social and economic justice.

"We could think of no greater legacy for our children

is located at the Lorraine Motel, where Dr. Martin Luther King Jr. was assassinated. The museum opened in 1991 and chronicles key episodes of the American civil rights movement and the legacy of this movement to inspire participation in civil and human rights efforts globally, thorough collections, exhibitions and educational programs. For more information visit CivilRightsMuseum.org.

The award is the third in a series of $1 million grants appropriated by The Links. Previous award recipients include The United Negro College Fund and The NAACP Legal Defense Fund. The Links, Incorporated's Foundation and the 273 chapters within The Links organization has granted over $17 million dollars to assist a host of service organizations in communities and cities across the United States, throughout the continent of Africa, and developing and third world countries.

The Links, founded in 1946, is one of the oldest and largest volunteer service organizations of women who are committed to enriching, sustaining and ensuring the culture and economic

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Thanks to the generosity of our community and the support of friends and corporate partners like Sky Bank, the Salvation Army collected more than 1,600 warm winter coats to distribute to adults and children in Central Ohio.

The Salvation Army's Coats for Columbus program was sponsored by Sky Bank and 92.3 WCOL. The program

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clout

development of programs and policies that benefit the people of the state."

Congress will be Rangel who, as chair of Ways and Means, will have ultimate say-so on any new tax initiatives being pushed by President Bush.

Rangel has already mentioned that he is concerned about the Alternative Minimum

time during her tenure in Congress that she has been in the majority.

"I've been in the minority all my life, and it's nice to be in the majority," Tubbs Jones said.

ex-offenders

volunteers and program resources to assist in the job of healing the individuals and families injured by incarceration.

Ex-offenders often have a wide variety of needs when they are released, including housing services, family counseling and employment assistance.

Although historically Black churches in the inner city have been most heavily involved in the effort, Collins said the task force is looking to receive assistance from churches all over the state, including rural areas.

Black churches in the inner city "are a group that's traditionally been helping," Collins said. But many offenders come from rural communities, as well, where their problems and concerns may not be as well-known. "There's a large portion of the community that wants to help, but doesn't know how to help," Collins said.

An estimated 3,200 faith-based volunteers are working in the prisons on a regular basis, said the Rev. Gary Sims, who runs faith-based efforts for the Ohio Department of Rehabilitation and Corrections. The Department of Youth Services logs about 5,500 volunteer hours per month from faith-based organizations.

(See FAITH, Page 6B)

Mick Family Dental Care

Walter D. Mick, DDS

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Public Workshops

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Coming up

Events

Live Nativity Hayride, 6:30-9 p.m. Dec.1-3, at Rose Hill Church of Christ, 9150 E. Main St. Call

Reynoldsburg/Pickerington Rotary Club, noon Tuesdays at Blacklick Woods Metropolitan Golf Course Clubhouse, 7309 E. Livingston Ave.

Call 457-6003.

Horizons Unlimited Divorce Support Gro 7-8 p.m. the first and third Sundays of the mo

RATE HIKES

Continued from page A1

"All the satellite communities are meeting with the city of Columbus on a regular basis," Emery said. "We're all looking at ways we can lessen the impact of these rate changes on our citizens, but it's not easy."

In addition to the rate increases, water and sewer customers can expect to pay nearly $2 a month more in surcharges for water and sewer infrastructure improvements in Columbus.

Columbus has been ordered by state and federal environmental protection agencies to complete about $2.5-billion in improvements to its systems. About 10 percent of those costs are being passed on to Columbus' suburban customers, Emery said.

To cover that cost, Gahanna residents are currently paying 30 cents a month. The increase now being considered by city council would raise that amount to $2.27 a month.

In addition to water and sanitary sewer increases, Gahanna property owners can expect a 35.5-percent a month increase in the amount they pay in storm sewer utility charges.

Residents currently pay $2.81 a month, or $8.45 a quarter, in stormwater fees. City council is considering a measure that would raise that amount by $1 to $3.81 a month, or $11.45 a quarter.

The city began charging the stormwater utility fees in 2005 to raise money to address flooding issues throughout the city. The fees raise about $700,000 a year to pay for infrastructure improvements.

So far, the city has completed more than $1-million in storm sewer system projects and $1-million in projects are under way.

The city has already identified more than $6.5-million in storm sewer projects that need to be completed through 2010.

The proposed increase, Emery said, would generate about $250,000 a year in additional revenue and allow the city to begin projects that otherwise would have to wait several years.

"If a decision is made not to make some of this modification to our stormwater utility, it would only delay our ability to get some of these much needed projects," he said. "A lot of these are projects that have come forth and we've gotten more details on since we began the stormwater utility."

Council is expected to introduce legislation authorizing changes to charges on Nov. 20. The earliest council could vote on the increases is its

COTA looks to future with sales-tax approval

By MARK MAJOR
ThisWeek Staff Writer

COTA administrators have a busy month ahead of them.

The passage of the Central Ohio Transit Authority's 0.25-percent sales tax levy means the authority has to begin making plans to spend the estimated $44-million it will generate annually.

Though they will present their "2007 as-is" budget to their board Dec. 20, COTA officials plan to make changes by January that will allow them to expand service before the middle of the year, said William Lhota, the authority's president and chief executive officer.

"Thanks to the passage of this levy, we can begin improving services with the May service change," Lhota said Monday after learning of the levy's victory.

Monday's announcement of COTA's victory came 20 days after voters went to the polls Nov. 7. Initial results put COTA ahead by a 3,561-vote margin in Franklin County.

Because 38,500 absentee and provisional ballots in Franklin County had yet to be counted when the polls closed, Lhota and his crew needed to wait until the vote was certified Nov. 27 to learn the fate of the levy. On Monday, the levy's margin of victory in Franklin County grew to 7,711 votes.

Franklin County voters did not decide the issue alone. The levy had to win a majority of supporters in Franklin County, as well as the areas of Delaware, Fairfield and Licking counties served by the authority.

Because the yes vote was dragged down by losses in Delaware, Fairfield and Licking counties, the levy's overall margin of victory was a little more than 6,200 votes. With a final tally among all counties of 189,925 to 183,686, the levy won by about 1.6 percent, exceeding the 0.5-percent margin necessary to avoid an automatic recount.

When the sales tax begins to be collected in January 2008, it will double the authority's revenue from sales taxes to about $88-million.

BOYS

Continued from page B1

Tyler Stanley scored four goals and made third-team all-MSL at defender. Another senior on the defense is Doug Spaeth-Cook (2 goals).

Junior Daniel Broidy made first-team all-district and all-league at sweeper and will be back to lead the

At a glance

- ***Record:*** 18-2-2 overall, 10-0 (first) in MSL-Ohio
- ***Seniors lost:*** Elliot Bromagen, Paul Ellison, Daniel Essman, Chris Fahey, Robbie Farquhar, Jordan Fox, Andrew Fraser, Zach Greening, Daniel Linger, Aaron Phalen, Doug Spaeth-Cook and Tyler Stanley
- ***Key returnees:*** Daniel Broidy, Ross Friedman, Charlie Pettys, Michael Prout, Ben Scoblionko, Aaron Stan and Colin Zidar

CARDINALS

Continued from page B1

Favazzo, Hart, Mayo, McJoynt-Griffith, Merz, Roberts, Summers, Velez and Wilson were regular starters. Favazzo was named first-team all-district. Mayo and McJoynt-Griffith were second-team all-district. Hart, Roberts, Summers and Velez received honorable mention.

"I'm really going to miss the seniors,"

Key expecte
Butler (OL), J
Francis (DB), M
JoVaughn Holla
Chris Murph
(OL/DL), Gran
(DL) and Zach
dan Gelhaus (F

Despite miss

charm. 4 BRs, 3 full & 2 half BAs. 1st flr mstr BR, 5287 SF, architectural integrity. 11' clngs, hdwd flrs, natural light, top-of-the-line Pozzi divided light wndws, 2 strwys. Overlooking wds of Jeffrey Mansion. 1.77 parklike lot abutting creek, priv cul-de-sac. Lg open porch, flagstone patio, walkway w/arbor, whole yd sprinkler sys. 2-3 car heated att rear load gar.

Cape, 1,354 sq ft plus rec r
expanded master suite '89, expos
floors, leaded glass windows, ne
new basement waterproofing '04,
deck, fenced rear yard, excelle
Excellent S. Bexley location. $19

2186 E. BROAD STREET
Total Bexley renovated, architectural integrity. Stately street presence. Country French Tudor, stone, stucco & wood exterior with rare slate roof. Gum woodwork, leaded glass windows, 2 stairways, chef's kitchen, 4-5 bedrooms, finished 3rd floor. Extensive landscaping, gardens. Excellent condition. Close proximity to Wolfe Park. $819,900.

2503 E. BROAD STREET
Stately stone 2.5-story on a 123
6 bedrooms, 3.5 baths incl. finishe
3682 SF, new chef's kitchen with
granite '00, architectural integrity
open floor plan, sunroom, large
room with renovated master bath. L
lot with gazebo. Excellent conditio
Bexley location. $559,000.

194 N. CASSADY AVENUE
Charming renovated N. Bexley 2 story. 3 BRs, 1.5 baths, 1568 SF, Pottery Barn decorating. New kitchen '02 w/maple cabinetry, new mud room w/French doors, new 1st floor laundry. New furnace '04. Large master BR. Fenced rear yard, open front porch, new 2.5 car garage '95. Excellent condition. $207,000.

2746 SHERWOOD ROAD
Highly desirable central Bexley 2 s
2.5 BA, 2712 SF. Formal entry, lg
rooms, 1st floor office + family
carpet '06, new kitchen granite
'06, replacement windows, 2 WBF
attached 2 car rear load garage, ne
'03. Quiet tree lined street. $388,00
Co-listed with Lois Greenblott

COUNCIL

Continued from page A1

uses for Jeffrey Mansion.

The new voting members are: council members Robyn Jones and Jeff McClelland; Chris Masoner of the recreation board; Pete Halliday and Jack Jeffrey chosen by the Bexley Heritage Fund; Mike Kilbourne selected by the Bexley Historical Society; and Anne Brennan, Frances Reed, David Bishoff, Tammy Pedon and Jed Morison selected by the mayor. Ex-officio (non-voting) members include Madison; chair of the parks, forestry and recreation committee Rick

SCHOOL BOARD

Continued from page A1

he pointed out.

As he does every year, Johnson invited the editorial staff of high school newspaper, The Torch, to lunch.

"They said they don't feel threatened by what is going on in the high school," he said.

However, he noted there are some things that students need to learn and understand about being part of a wider community.

The board cited several changes that high school principal John Kellogg has instituted recently, including adding staff supervision during lunch and more staff presence in hallways and outside at dismissal.

Superintendent's report

1,000 U.S. public high schools.

As Bexley improves, other school districts e ence difficulties – with passing levies, reorga the school day or low achievement scores – Bexley continues to manage its money well, the munity becomes even more attractive, Johnso

"Some people will do anything to get into our district and take advantage of the opportuni offer," he concluded, mentioning the residenc icy on the agenda. "For individuals who are v on fraud to get into Bexley schools, we need to sure that we have a strong residency policy in and apply the policy evenly and fairly."

Art specialists recognized

Johnson honored Bexley art specialists Al dan Becky Liefeld Mabi Ponce de Leon Susa understand why we do them," he said.

AFFORDABLE

Public Workshops

on Environmental Study and Part 150 Noise Study concerning Proposed Expansion at Port Columbus International Airport

The meetings will be held at:

Holiday Inn & Suites
750 Stelzer Road
Columbus, OH

Tuesday, December 5, 2006
5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH

Wednesday, December 6, 2006
5 p.m. - 8 p.m.

Project Website: www.airportsites.net/cmh-eis

The same information will be presented at both meetings.
No formal presentations are planned – stop in anytime.

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Whitehall, OH

Wednesday, December 6, 2006
5 p.m. - 8 p.m.

For more information contact:

Ms. Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 South Wayne Road, Suite 107
Romulus, MI 48174

Telephone: (734)229-2958
Email: CMHEIS@faa.gov

Project Website: www.airportsites.net/cmh-eis

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Email: CMHEIS@faa.gov

Project Website: www.airportsites.net/cmh-eis

The same information will be presented at both meetings. No formal presentations are planned – stop in anytime.

12-04-2006
FOR IMMEDIATE RELEASE

Public Workshops on Port Columbus Noise Compatibility, Airport Expansion Slated for Tuesday & Wednesday

COLUMBUS – Public Information workshops for the Port Columbus International Airport Noise Compatibility Study will be held Tuesday, December 5 and Wednesday, December 6. These workshops will be held in conjunction with the Federal Aviation Administration's workshops scheduled to collect additional comments on the Environmental Impact Study for the proposed expansion at Port Columbus.

The Columbus Regional Airport Authority initiated the Noise Compatibility Study in 2006 to document the levels of noise from aircraft operations at Port Columbus. The Noise Compatibility Study at Port Columbus is intended to update existing noise exposure contours and develop a balanced and cost-effective plan to reduce current noise impacts from aircraft operations, where practical, and to limit the potential for future impacts. The FAA will be hosting workshops to gather oral and written public comments as it develops an Environmental Impact Statement (EIS) that focuses on the airport's proposed construction of a new south runway to replace the current south runway, new taxiways, new terminal facilities in the midfield area and other airport improvements.

Residents, business owners and concerned citizens are encouraged to attend the workshops to provide input and ask questions. There will be no formal presentations, so people are invited to attend anytime during the workshops.

Details of the Workshops Dates: Tuesday, December 5 & Wednesday, December 6

Time: 5 p.m. to 8 p.m

Locations: Holiday Inn & Suites, 750 Stelzer Road, Columbus on December 5

Whitehall Community Park Activities Center, 402 N. Hamilton Rd, Whitehall on December 6

For more information contact Angie Tabor, Manager of Communications for the Columbus Regional Airport Authority, at (614) 239-4081 or ATabor@ColumbusAirports.com.

– End –

x close window

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
December 5, 2006 - Holiday Inn & Suites
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
DAVID WALL	4600 INTERNATIONAL GATEWAY COLUMBUS, OH 43219	614-239-4063
Virginia Raps	Landrum & Brown	513-530-5333
BERNIE MELESKI	4600 INTL GATEWAY CBS. OH	614-239 4042
MARY E. LITTLEFIELD	1889 DUNNING RD	614-475-2152
HERBERT H. HENDERSON	2283 Argyle Dr.	614-251-0236
WALTER AK	2290 Argyle DR	614-257-1369
Rosie Austin	2290 ARGYLE DR	614 257-1369
Dave Clawson	4600 International Gateway Columbus, OH 43219	614-239-5059
Dwayne Farney	3198 E. 13th Ave	614-252-3504
DON RAMEY	2445 AIRPORT DR	614-253-8131

Page 1 of __

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
December 5, 2006 - Holiday Inn & Suites
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Mike Jones	1261 Dublin Rd Columbus	614-481-6659
Anthony M. Swank	1677 Kaneg Dr	614-253-0267
Gerald Bennett	2036 Avalon Pl	614-252-4070
Mrs. Jr Faye Woodell	1056 Wildwood Ave	614-252-1742
Kelly S. Moody	2620 Drake Rd.	614-476-4111
Wayne Rost	935 N. Cassady Ave	614-257-4731
Cathy Ferrari	2160 W Case Rd	614-292-5823
[illegible]	2517 Bethesda Ave	614-252-2270

Page 2 of __

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
December 6, 2006 - Whitehall Community Park Activities Center
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
DAVID WALL	4600 INTERNATIONAL GATEWAY COLUMBUS, OH 43219	(614) 239-4063
BERNIE MELESICI	" "	614-239-4042
Mark Daniels	PO Box 30851 Gahanna, OH 43230	(614) 204-4001
Andy & Carol Beusmg	2421 Airport Dr. Columbus, OH	614-253-8010
Dorothea Johnson	2520 Joi Ave Col OHIO 43219	(614) 253-4240
IRVING JOHNSON	//	//
CHARLES A LUSCO	1169 MANFELD DR COLUMBUS OH 43227	614-863-4016
JANE E SCHNEIDER	1169 MANFELD DR COLS 43227	614/863-4016
Jeanette Brown	1275 Windsell Ave	614-253-5926

FAR Part 150 Noise Compatibility Study

PORT COLUMBUS INTERNATIONAL AIRPORT

Public Information Workshops December 5/6, 2006

Purpose of Tonight's Meeting

Tonight is the second in a series of workshops that are being held to invite the public to comment on the findings of a Part 150 Noise Compatibility Study being conducted by the Columbus Regional Airport Authority (CRAA) for proposed improvements to Port Columbus International Airport (CMH). Proposed improvements include the replacement/relocation of the airport's south runway and the development of a new passenger terminal to supplement the existing passenger terminal. The purpose of the Part 150 Study is to identify the noise impacts of these projects on the surrounding community and to develop mitigation measures to help minimize these impacts.

The CRAA is updating the Part 150 Noise Compatibility Study at the same time that the Federal Aviation Administration (FAA) is preparing an Environmental Impact Statement (EIS) for the proposed projects. The EIS analyzes and discloses all of the environmental impacts caused by proposed projects including noise impacts. Tonight's workshop is being held jointly with an EIS workshop to encourage public comment on both studies. The results and recommendations of the Part 150 Study will be included in the EIS.

Information Available at Tonight's Workshop

Part 150 of the Federal Aviation Regulations provides guidance for conducting a Noise Compatibility Study. There are two components to the study process. The first component is to identify the Noise Exposure Maps (NEMs) and the second is to develop a Noise Compatibility Program (NCP). Detailed information is available at tonight's public workshop on the NEMs.

NEMs show the official noise contours for the airport for the existing condition (2006/2007) and for a five-year future condition (2012). Noise contours are overlaid onto a land use map to show where incompatible land uses around the airport either currently exist, or are anticipated to exist, as a result of the proposed development. Land uses are considered incompatible when they are anticipated to experience annual average noise levels that exceed significant levels of aircraft noise as defined by the Federal Aviation Regulations. Examples of incompatible land uses include: housing, hospitals, schools, churches, nursing homes, parks, recreation areas, wildlife refuges or historic properties.

The CRAA has developed a number of procedures and programs over the last 15 years to reduce or mitigate noise impacts. The public's input on revising current programs or developing new noise abatement procedures and land use mitigation programs is being solicited. The consultant team has a list of the current programs and will record any suggestions made during the workshop.

FAR Part 150 Noise Compatibility Study

PORT COLUMBUS INTERNATIONAL AIRPORT

Public Information Workshops December 5/6, 2006

Next Steps

Following tonight's workshop, the next step in the Part 150 Study process is to develop noise abatement and land use mitigation alternatives. These alternatives are intended to enhance the compatibility of the airport with surrounding land uses by mitigating the impacts of significant noise exposure on land uses that are considered by the FAA as incompatible or by introducing measures that would limit the introduction of incompatible land uses anticipated to be exposed to significant noise levels.

Preliminary alternatives will be presented at the next set of public information workshops. A date for the next set of public information workshops has not been set at this time, but is anticipated to occur in the **Spring of 2007**. Dates and locations for these workshops will be published as soon as they are determined.

Public Comments Encouraged

The Noise Compatibility Study process is designed to encourage public comment. So that the public can conveniently access the workshops, they are being held at two locations - one to the east of the airport and another to the west of the airport. Workshops are conducted in an open house format where the public can attend anytime during workshop hours. Representatives of the FAA, airport staff, and consulting team will be available throughout the evening to answer questions or discuss specific issues. The same information is being presented at each location.

The public is also encouraged to provide written comments regarding the study and its findings to date. Comment forms are located in the workshop area and at the registration table. Forms may either be completed this evening and left in the Comment Box or mailed to the address below. All comments regarding this portion of the study should be post-marked by **December 20, 2006**. Please mail your comments on the Part 150 Study to:

Rob Adams
Part 150 Project Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, Ohio 45242
Phone (513) 530-1201

Comments may also be e-mailed to Mr. Adams at radams@landrum-brown.com or sent by fax at (513) 530-1278 (facsimile). All of the comments received at the public workshops will be reviewed by the airport and the consultant team for consideration in the study process as appropriate, and included in the final study document.

COMMENT FORM

PUBLIC WORKSHOP

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
DECEMBER 5, 2006 – HOLIDAY INN & SUITES

Welcome to the Public Workshop for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below, **postmarked by December 20, 2006**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **December 20, 2006.**

My home is Located at 2290 Argyle DR. This home has been in my family for 35 years and the planes fly directly over my house when Departing and very low when coming in. the home next to my house and across the street are part of the Noise program and my house should be also. The Noise has been [redacted] very loud and it Vibrates my home. It would be Greatly Appreciated if you concider my hona.

thank you very much

Walter Akin

Submit comments postmarked by December 20, 2006 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: WALTER AKIN

Address: 2290 ARGYLE DR
Columbus Ohio 43219

COMMENT FORM

PUBLIC WORKSHOP

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
DECEMBER 6, 2006 – WHITEHALL COMMUNITY PARK ACTIVITIES CENTER

Welcome to the Public Workshop for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below, **postmarked by December 20, 2006**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **December 20, 2006.**

The workshop was evidence of alot of very hard work. The noise study process is a benefit for better living environment. I live in a home near the Airport and sometimes we have to wait to talk until the Airplane moves on. Thanks for the Workshop, I'm more informed now.

Submit comments postmarked by December 20, 2006 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Dorothea Johnson

Address: 1022 N. Cassady
Columbus Ohio 43219

Planning Advisory Committee Meeting #3
March 13, 2006

Letter of Invite
Registration
Presentation
Summary Meeting Notes

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

February 13, 2007
Name
Address
Address
Address
Address

RE: Port Columbus International Airport
Part 150 Noise Compatibility Study Update
Planning Advisory Committee Meeting

Dear Name:

Please mark your calendar for a meeting of the Planning Advisory Committee for the Port Columbus International Airport Part 150 Noise Compatibility Study Update. The meeting is scheduled for:

Tuesday, March 13, 2007
1:00 p.m. – 3:00 p.m.
Port Columbus International Airport
Emergency Operations Center

An agenda for the meeting is enclosed with this letter. The discussion will focus on technical aspects of noise, air traffic control procedures, and a presentation of preliminary noise abatement alternatives.

The Emergency Operations Center is located on the second level of the airport terminal. It can be accessed by an elevator located adjacent to the food court. There will be signage near this elevator directing you to the meeting. Please bring your parking ticket with you for validation.

Our meeting will end promptly at 3:00 p.m. We appreciate your interest in Port Columbus International Airport and your participation in the study process. Please confirm your attendance by responding to Melanie DePoy of Aerofinity, Inc. by Tuesday, March 6, 2007. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY UPDATE

Columbus Regional Airport Authority
PLANNING ADVISORY COMMITTEE

March 13, 2007
1:00 p.m. to 3:00 p.m.

AGENDA

WELCOME

I. Where are we in the Part 150 Process?

II. Part 150 Schedule

III. Review of Existing and Future Conditions Contours

IV. Preliminary Noise Abatement Alternatives

V. Next Steps

2/13/07 PAC Meeting Invitation Distribution List

Mr. Thomas J. Browne
Managing Director of Airports
Air Transport Association of America
1301 Pennsylvania Avenue, NW – Suite 1100
Washington, DC 20004-1707

AOPA
Airports Division
421 Aviation Way
Frederick, MD 21701

Mr. Ron Moodespaugh
Director of Building Maintenance
Lane Aviation Corporation
4389 International Gateway
Columbus, OH 43219

Mr. Bill Tylka
Million Air
4130 East Fifth Avenue
Columbus, OH 43219

Mr. Tim Stehle
Limited Brands
4387 International Gateway
Columbus, OH 43219

Bryan Levandusky
Northwest/Mesaba
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Brian Kennedy
United/United Express
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Bill Cumbow
Airline Pilots Association
262 McKenna Creek Drive
Gahanna, OH 43230

Mr. Richard G. Smith III
Net Jets
4111 Bridgeway Avenue
Columbus, OH 43219

Mr. Dan Wolfe, Manager
Nationwide Insurance Company
3945 Bridgeway Avenue
Columbus, OH 43219

Mr. Ken Waite
The Columbus International Air Center
4300 East Fifth Avenue
Columbus, OH 43219

Mr. Mark Dooley
Continental Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Patti Froehlich
Midwest Connect/Skyway
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Sandy Dicocco
US Airways/US Airways/America West
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Felix Scuilli
Delta/Delta Connection
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Joni Taylor
Southwest Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

2/13/07 PAC Meeting Invitation Distribution List

Mr. James Bryant
Ohio Office of Aviation
2829 W. Dublin-Granville Road
Columbus, OH 43219

Mr. Mark Kelby
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Columbus Russell
Cumberland Ridge Civic Association
1876 Mountain Oak Rd.
Columbus, OH 43219

Mr. Jeff Lischak
Chautauqua Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Dr. Troy Lee Shaw
East Columbus Civic Association
East Columbus Community Center
2743 East 5th Ave.
Columbus, OH 43219

Mr. Jimmie Moreland III
North Central Area Commission
1314 Sigsbee Avenue
Columbus, OH 43219

Dr. Harold E. McDaniel
St. Mary's Civic Association
979 Wellington Blvd.
Columbus, OH 43219

Mr. Robert Lawler
MORPC
285 E. Main St.
Columbus, OH 43215

Mr. Charles McCroskey
Jefferson Twp.
6545 Havens Road
Blacklick, OH 43004

Mr. Raymond Ogden
City of Whitehall Planning Commission
360 S. Yearling Road
Whitehall, OH 43213

Mr. Lucas Haire
City of Reynoldsburg
7232 E. Main Street
Reynoldsburg, OH 43068

Mr. Lee Brown
Franklin County
280 East Broad Street, 2nd Floor
Columbus, OH 43215

Dr. Gene Harris
City of Columbus Schools
270 East State Street
Columbus, OH 43215

Mr. Alan Harding
Columbus Flight Watch
5731 Blinnton Place
Columbus, OH 43235-7205

Frank Martino
American/American Eagle
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Katherine Jones
Federal Aviation Administration – Detroit ADO
11677 S. Wayne Road
Romulus, MI 48174

2/13/07 PAC Meeting Invitation Distribution List

Mr. Dave Wall
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Stacey Heaton
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Elwood Rayford
Northeast Area Commission
2776 Yorkcliff Rd.
Columbus, OH 43219

Mr. Chris Lenfest
FAA CMH Air Traffic Control Tower
4277 International Gateway
Columbus, OH 43219

Mr. Don Peters
Columbus Flight Watch
40 Massey Drive
Westerville, OH 43081

Mr. Bernie Meleski
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Dave Clawson
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Grisetta Griffin
Brittany Hills Civic Association
2463 Peekskill Drive
Columbus, OH 43219

Ms. Devayani D. Puranik
City of Columbus
109 N. Front Street
Columbus, OH 43215

Mr. Matthew Shad
City of Whitehall
360 S. Yearling Road
Whitehall, OH 43213

Ms. Bonnie Gard
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

Mr. John Brandt
City of Reynoldsburg
7232 E. Main Street
Reynoldsburg, OH 43068

Mr. Chris Gawronski
MORPC
285 E. Main St.
Columbus, OH 43215

Sadicka White
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

Mr. Matthew Huffman
City of Gahanna
200 South Hamilton
Gahanna, OH 43230

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FAA CMH ATCT
4277 International Gateway
Columbus, OH 43219

2/13/07 PAC Meeting Invitation Distribution List

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Mr. Vince Papsidero, Planning Administrator
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Air Canada Jazz
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Columbus Regional Airport Authority

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Heaton, Stacey	4600 International Gateway Columbus, OH 43219	
Kelby, Mark	4600 International Gateway Columbus, OH 43219	
Meleski, Bernie	4600 International Gateway Columbus, OH 43219	
Wall, Dave	4600 International Gateway Columbus, OH 43219	

Additional Guests

PLEASE PRINT

Attendance Sign-In	Name	Address	Phone/Email
Shari Kyser	Million Air CMH		
Bethany J. Miller	City of Gahanna	200 S. Hamilton Rd	342-4025
	Worthington Representative to OSU Airport Advisory Board	6081 Olentangy River Rd Worthington, OH	284-0629
Kim Dixon-Bell	Woose	Worthington	
Doug Hammon	OSU Airport		
Madison Rose	City of Columbus	50 W Gay St	645-6281

Port Columbus International Airport

FAR Part 150 Noise Compatibility Study

Planning Advisory Committee Meeting 3

March 13, 2007

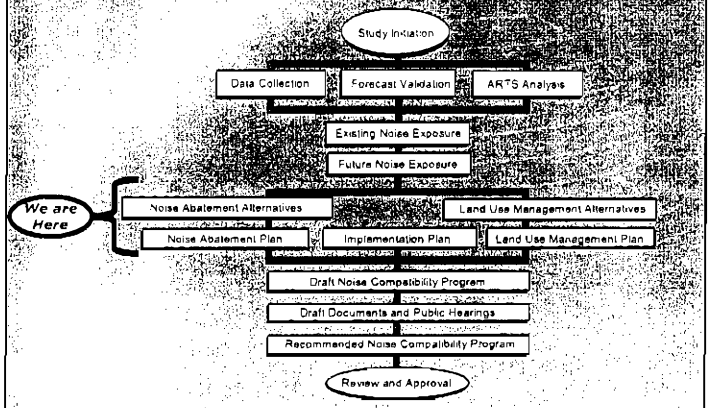
Planning Advisory Committee

- Welcome and Introductions
- Purpose of Today's PAC Meeting
  - Present our preliminary findings on the noise abatement alternatives
  - Gather your input on the alternatives
  - ***No Decisions Have Been Made!***

Today's Agenda

- Where are we in the Part 150 Process?
- Part 150 Schedule
- Review of Existing and Future Noise Exposure Maps
- Preliminary Noise Abatement Alternatives
- Next Steps

Where are we in the Part 150 Process?

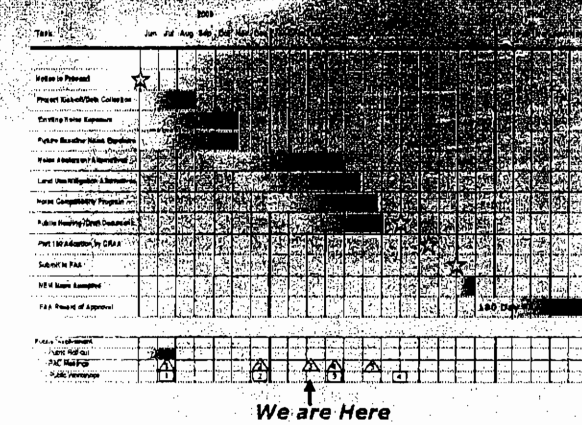


Where we are in the Part 150 Process?

- Columbus Regional Airport Authority (CRAA) is the sponsor of the Part 150 Study
- Sponsor's Proposed Project from the Environmental Impact Statement (EIS) will be used as the Future Baseline in the Part 150 Study
- If the EIS process concludes that another alternative is more viable, the Part 150 Study will evaluate that alternative

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 5

Part 150 Schedule



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Planning Advisory Committee

- Review of Existing and Future Baseline Noise Exposure Maps

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 7

Existing (2006) Noise Exposure Map

- 2006 Operating Assumptions
  - Operating Levels/Fleet Mix
    - 197,100 operations in 2006 [illegible]
    - Air Carrier – Boeing 737, Airbus 319/320, MD80 and DC9
    - Commuter Operations – Canadair and Embraer Regional Jets
    - GA – Business Jets and single/twin engine propellers
  - Runway Use
    - West Flow (arrive and depart 28L/28R) – 75% of the operations
    - East Flow (arrive and depart 10L/10R) – 25% of the operations
  - Flight Tracks
    - Departing jet aircraft turned after reaching an altitude of 3,500 feet or 5 miles

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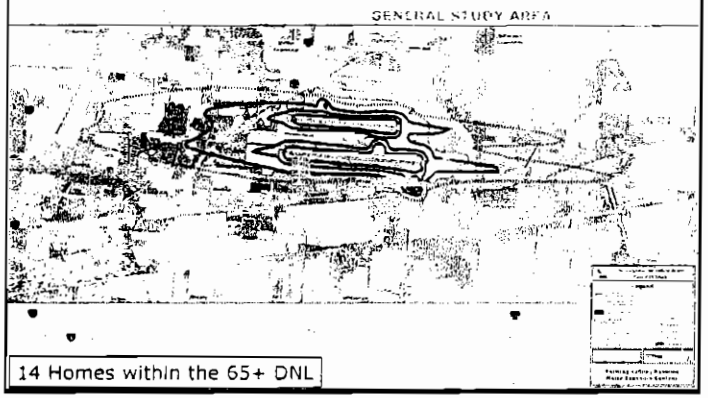
FAR Part 150 Noise Compatibility Study 8

Existing (2006) Noise Exposure Map



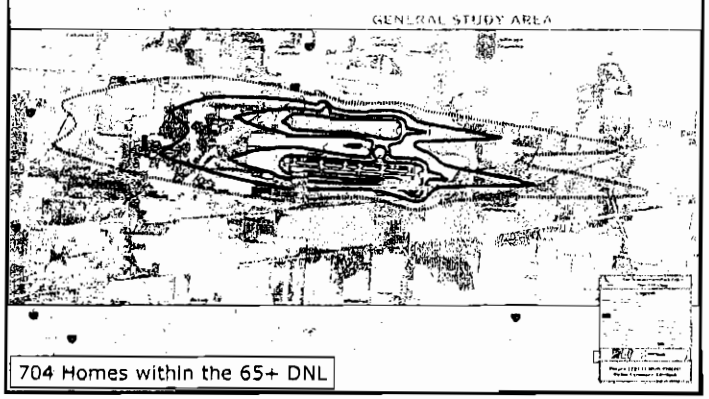
14 Homes within the 65+ DNL

Future Baseline (with Relocated Runway) Noise Exposure Contours

- 2012 Operating Assumptions
  - Future Operations
    - Overall
    - No significant
  - Runway Layout
    - Runway 10-28 relocated
  - Summary

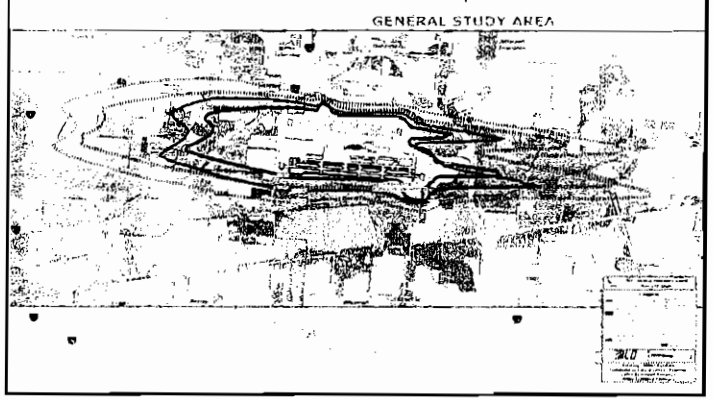
No Change from 2006	Changed from 2006
Runway Use	Operations Levels
Flight Tracks	Aircraft Types
	Runway Layout

Future Baseline (with Relocated Runway) Noise Exposure Contour



704 Homes within the 65+ DNL

Existing 2006 vs Future Baseline (with Relocated Runway)



Future Baseline (with Relocated Runway) Noise Exposure Contours

- Summary of Impacts
  - Increased impacts in 2012 is due primarily to increases in operating levels
  - Relocated runway also is a factor

SUMMARY OF IMPACTS				
Housing Units	65-70 DNL	70-75 DNL	75+ DNL	Total
2006 Existing Baseline	14	0	0	14
2012 Future Baseline (with Relocated Runway)	704	0	0	704
Population				
2006 Existing Baseline	34	0	0	34
2012 Future Baseline (with Relocated Runway)	1,739	0	0	1,739

Planning Advisory Committee

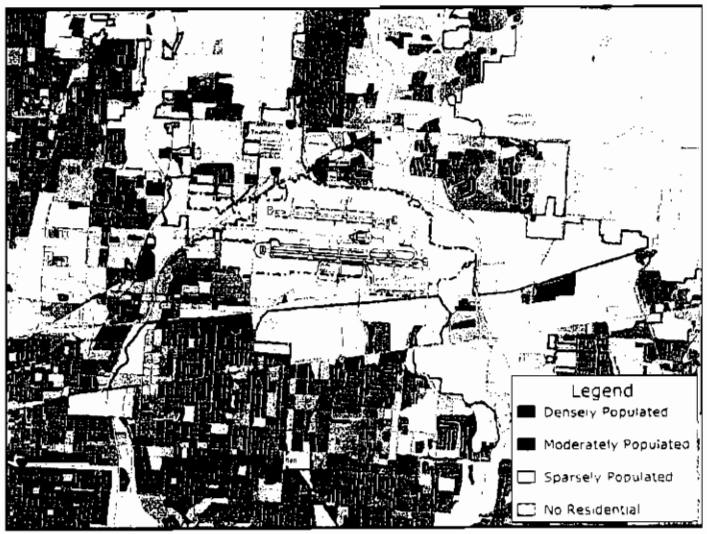
- Ideas from the previous PAC Meeting
  - Need for divergent turns
  - Runway preferences
  - Flight track locations
  - Nighttime noise issues
  - Flight management
  - Ground Noise Policies/Controls

Planning Advisory Committee

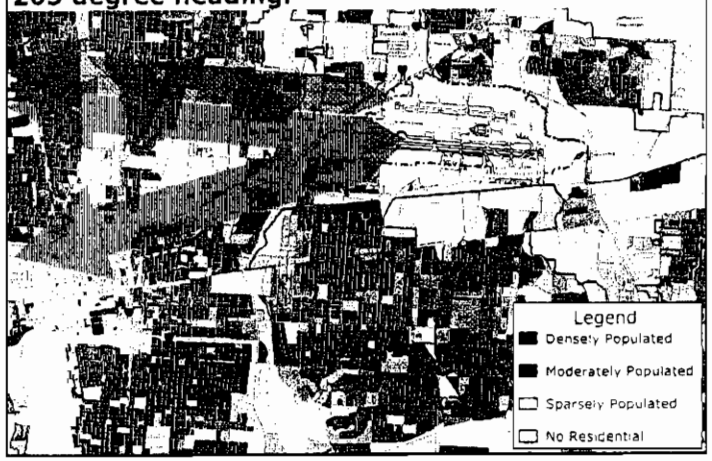
- Evaluation of Preliminary Noise Abatement Alternatives
  - Safety
  - Feasibility
  - Operational impacts
    - Increase in delay
    - Conflicts with other airports
  - Noise impacts
    - Reductions in the 65+ DNL
    - Sensitivity to shifting noise from one area to another

Preliminary Noise Abatement Alternatives

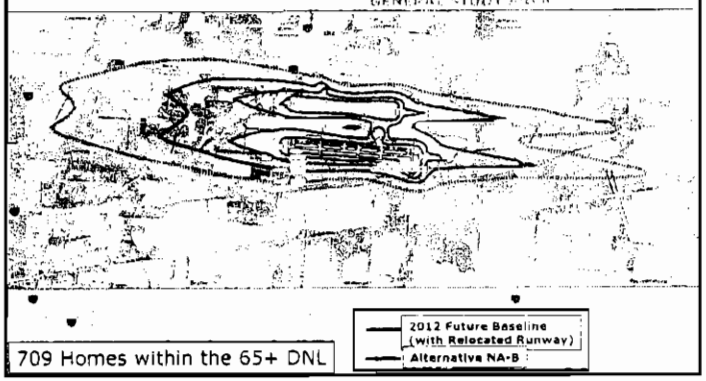
- Need for Divergent Turns
  - Description of problem/issue
    - FAA ATC has requested additional departure headings (15 degree turns) in order to increase capacity and reduce delays, on/when needed
    - Current procedures instruct aircraft to fly runway heading until reaching 5 miles or 3,500 feet AGL
  - List of potential solutions (alternatives)
    - NA-A: 15-degree divergent turn – Runway 28L
    - **NA-B: 20-degree divergent turn – Runway 28L**
    - **NA-E: 15-degree divergent turn – Runway 28R**
    - **NA-G: 15-degree divergent turn – Runway 10R**
    - NA-H: 40-degree divergent turn – Runway 10R
    - **NA-K: 15-degree divergent turn – Runway 10L**



NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.



NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.



Preliminary Noise Abatement Alternatives

NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.

Benefits:

- Increases capacity and reduces delays by giving ATC an additional heading
- Decreases the impacts outside of the 65+ DNL

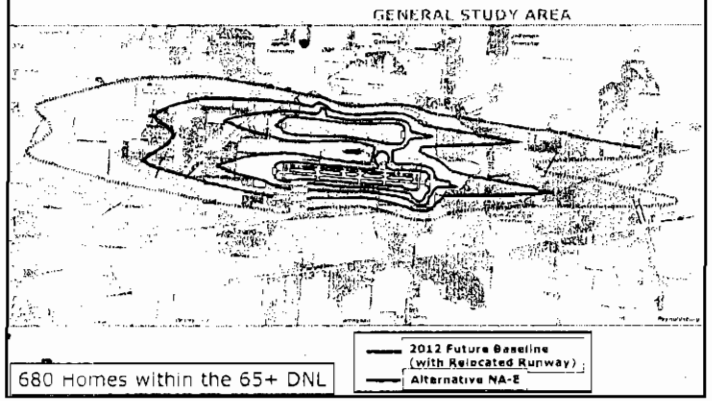
Drawbacks:

- Shifts noise from one area to another
- Increase overall noise impacts in the 65+ DNL by 5 homes

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 20

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.



Preliminary Noise Abatement Alternatives

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.

Benefits:

- Increases capacity and reduces delays by giving ATCT an additional heading
- Decreases the overall noise impacts in the 65+ DNL by 24 homes, as well as outside of the 65 DNL

Drawbacks:

- Shifts noise from one area to another
- May cause airspace conflicts with arrivals at Ohio State University Airport (coordinating with ATCT)

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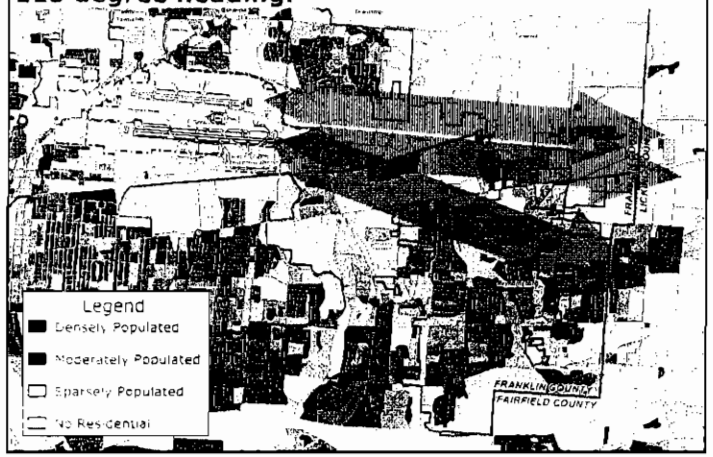
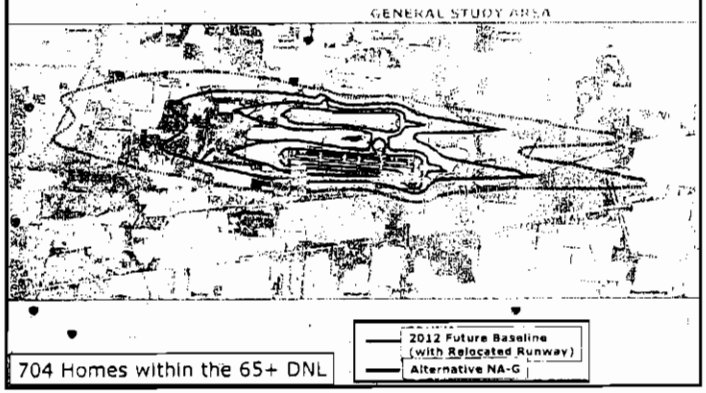
FAR Part 150 Noise Compatibility Study 23

NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.



NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.



Preliminary Noise Abatement Alternatives

NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.

Benefits:

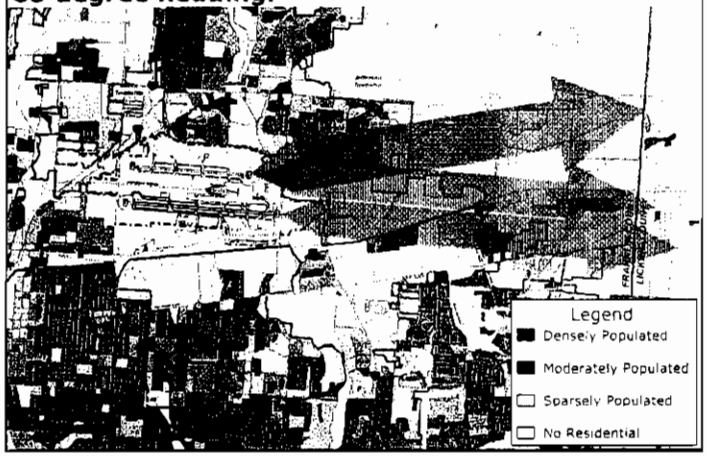
- Increases capacity by reducing delay by giving ATC an additional heading

Drawbacks:

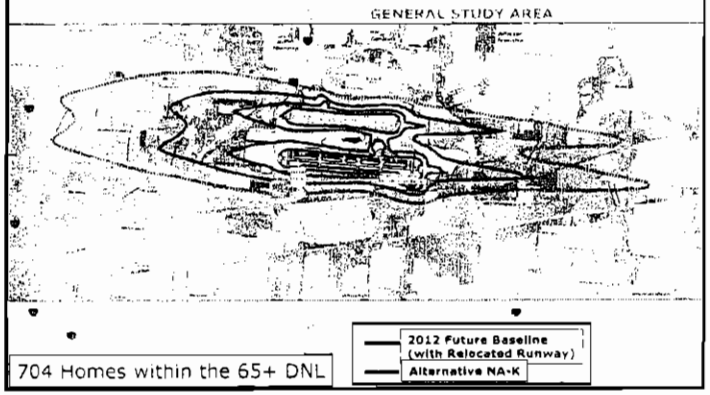
- Shifts noise from one area to another
- No change in noise impacts in 65+ DNL
- Increases noise impacts between 60 and 65 DNL

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 26

NA-K: All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading.



NA-K: All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading.



Preliminary Noise Abatement Alternatives

NA-T: All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading.

Benefits:
- Increases capacity and reduces delays by giving ATCT an additional heading

Drawbacks:
- Shifts noise from one area to another
- No change in noise impacts in 65+ DNL
- Increases noise impacts in between 60 and 65 DNL in Gahanna

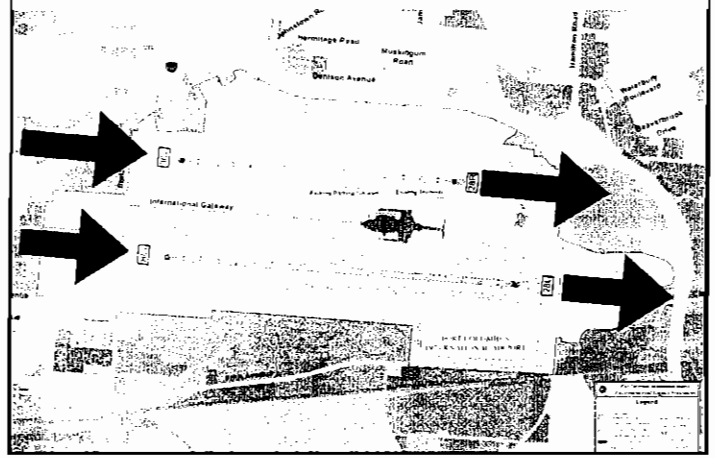
Preliminary Noise Abatement Alternatives

- **Runway preferences**
  - **Description of problem/issue**
    - Currently [illegible] and [illegible]
    - The intent of the policy [illegible] is to assign aircraft to use a specific runway end that results in the smallest number of impacts
    - In general, the east side of the airport is more compatible than the west side
  - **List of potential solutions (alternatives)**
    - **NA-R: East flow (arrive and depart Runways 10L/10R)**
    - NA-T: Runway 10L/28R preferential runway all the time
    - **NA-U: Runway 10R/28L preferential runway all the time**

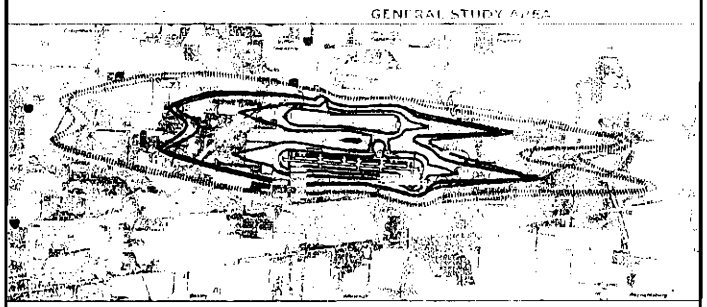
Preliminary Noise Abatement Alternatives

- **NA-R: East flow preference**
  - **Description**
    - ATCT tower order states that the airport should operate in east flow during calm winds
    - Due to airline scheduling and airfield layout this is not implemented as would be expected based on wind direction
    - Currently working with the ATCT to identify ways to increase east flow
    - Airport currently operates 75% west and 25% east

NA-R: East flow preference.



NA-R: East flow preference.



409 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

NA-R: East flow preference

Benefits:

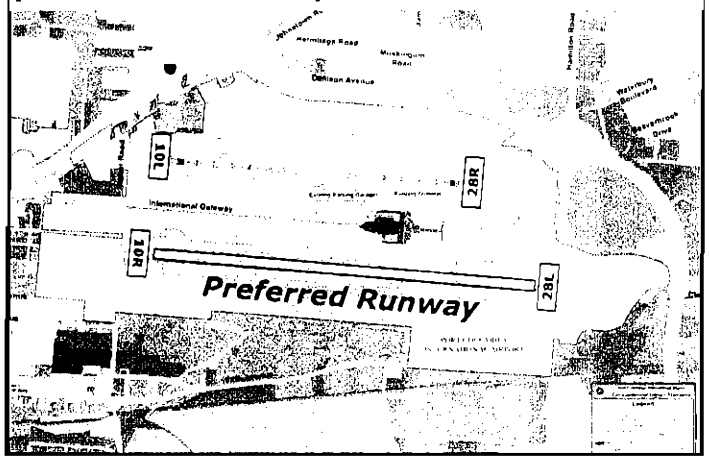
- Takes advantage of more compatible land to the east
- Reduces the number of homes in 65+ DNL by 295
- Reduces the number of homes between 60 and 65 DNL

Drawbacks:

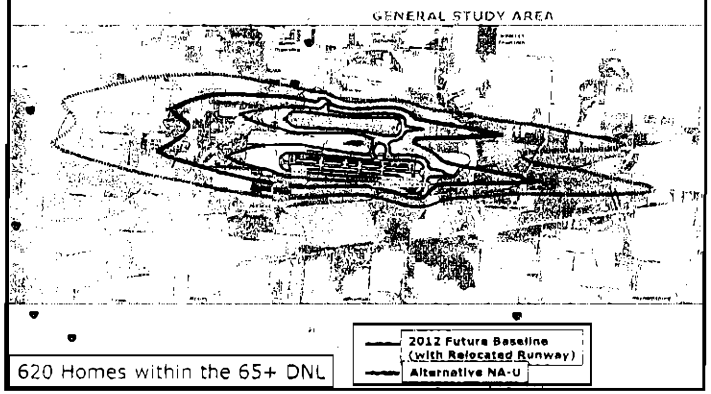
- Airport operates more efficiently in west flow due the location of the terminal and the layout of the airfield

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 34

NA-U: Designate Runway 10R/28L as the preferential runway all the time.



NA-U: Designate Runway 10R/28L as the preferential runway all the time.



620 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

NA-U: Designate Runway 10R/28L as the preferential runway all the time.

Benefits:

- Decreases noise to the northeast and northwest of the airport
- Decreases overall noise impacts in 65+ DNL by 84 households

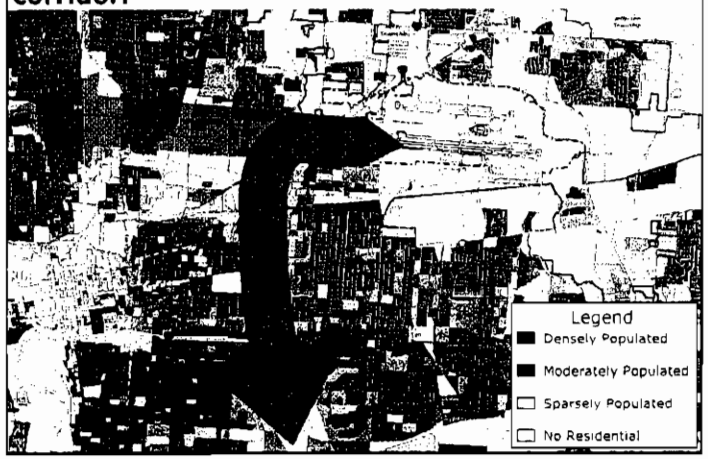
Drawbacks:

- Increases noise to the southeast and southwest of the airport
- Increases the number of homes between 60 and 65 DNL.
- Increases taxi time for aircraft located on the north side of the terminal

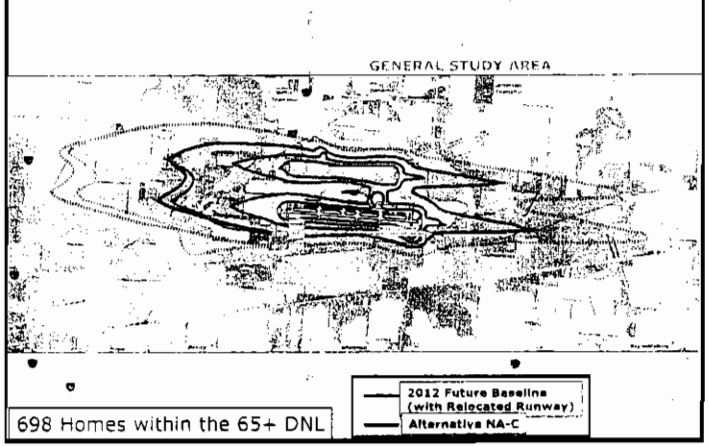
Preliminary Noise Abatement Alternatives

- **Flight track locations**
  - **Description of problem/issue**
    - Departures to the northwest on runway 10R heading right reaching 5 miles from the airport at 3500 feet AGL
    - Intent of the following alternatives is to determine if more compatible corridors exist
  - **List of potential solutions (alternatives)**
    - **NA-C: Southbound departures follow 670/70 corridor – Runway 28L**
    - NA-F: Northbound departures turn right to a 360 heading – Runway 28R
    - NA-J: Southbound departures follow 270 corridor– Runway 10R

NA-C: All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.



NA-C: All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.



Preliminary Noise Abatement Alternatives

- NA-C: All southbound traffic departing Runway 28L turn left and follow the current 070/250 corridor

Benefits:

- Reduces noise for those areas that are located along the runway centerline
- Decreases noise impacts in 65+ DNL by 6 homes
- Decreases the number of homes between 60 and 65 DNL

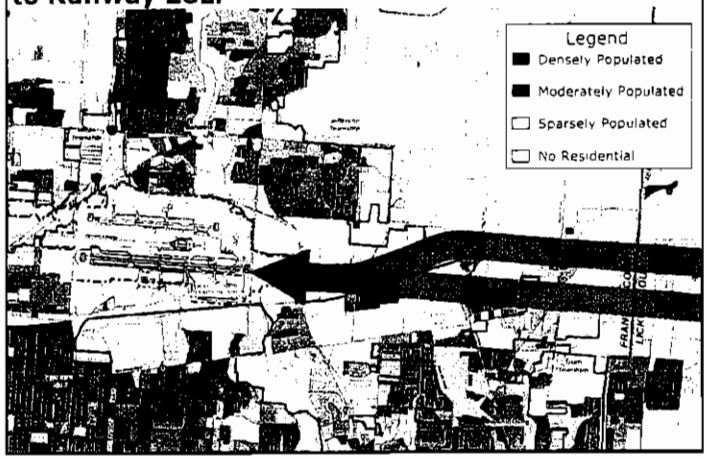
Drawbacks:

- Shifts noise from one area to another

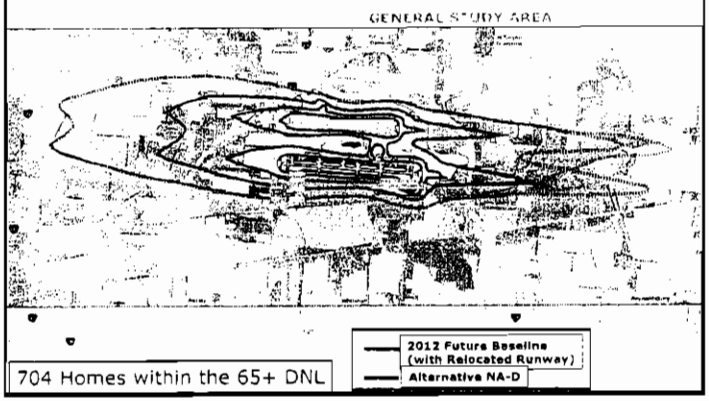
Preliminary Noise Abatement Alternatives

- Nighttime Noise
  - Description of problem / goal
    - Noise levels during the nighttime
    - The intent of the following alternatives is to identify the best nighttime procedures
  - List of potential solutions (alternatives)
    - **NA-D: New arrival procedure – Runway 28L**
    - **NA-I: New departure procedure – Runway 10R**
    - NA-L: Modify (NA-2) current tower order to assign jet aircraft to prop departure procedure
    - NA-M: Modify (NA-4) current tower order to eliminate the flight procedure for prop departures
    - NA-S: Designate Runway 10L/28R as preferred nighttime runway
    - **NA-V: Focus aircraft to the east of the airport – Arrivals on Runway 28R and departures on Runway 10R**

NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use side step approach to Runway 28L.



NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use side step approach to Runway 28L.



Preliminary Noise Abatement Alternatives

NA-I: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use glide step approach to Runway 28L.

Benefits:
- Decreases noise over populated areas along the runway centerline during the nighttime hours.
- Decreases noise impacts between 60 and 65 DNL by 339 homes.

Drawbacks:
- Additional coordination/communication for ATCT and pilots.
- New visual arrival procedure would need to be published.
- No change in noise impacts in 65+ DNL

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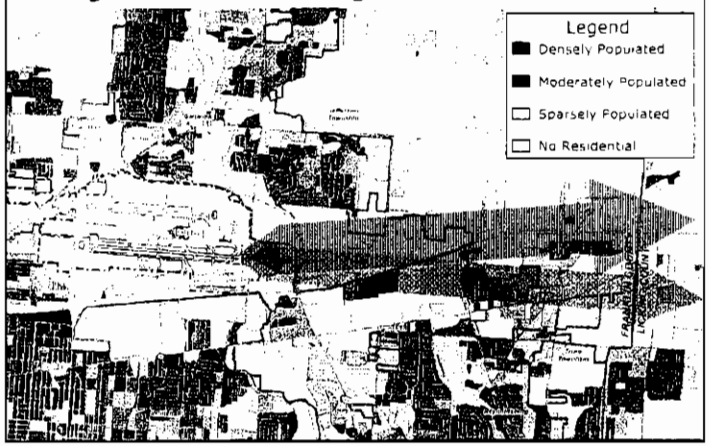
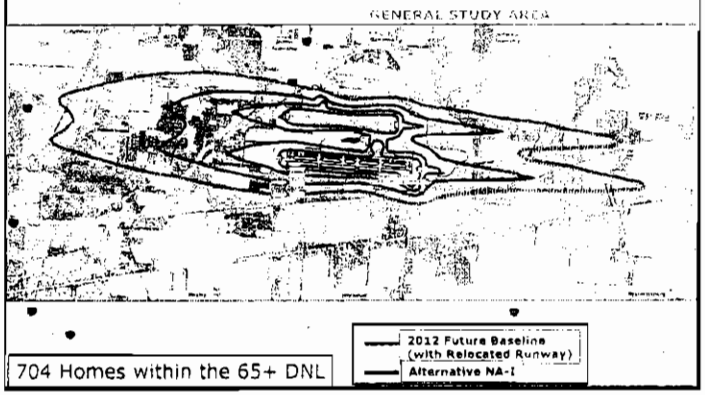
NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.



NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.



704 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.

Benefits:
- Reduce noise over the runway centerline.
- Decreased noise impacts between 60 and 65 DNL by 105 homes.

Drawbacks:
- No change in noise impacts in 65+ DNL

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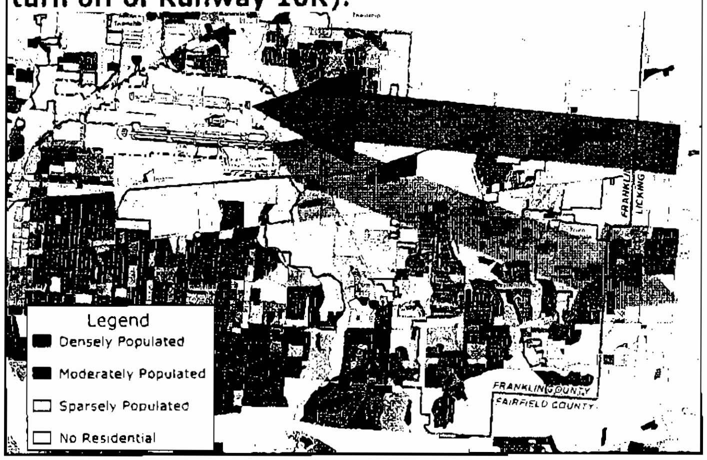
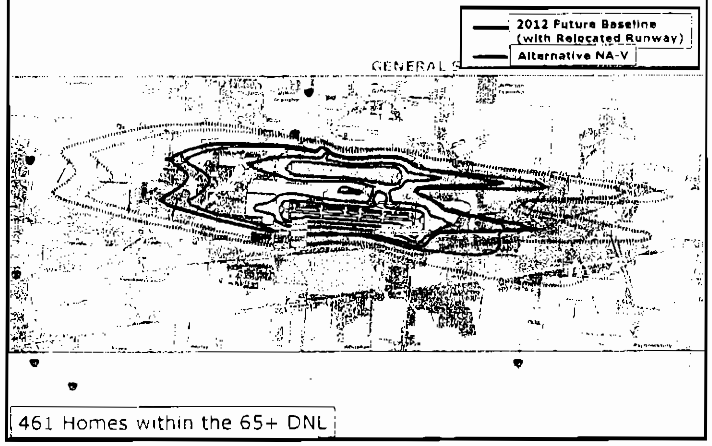
NA-V: Implement head to head operations during the nighttime for all aircraft (includes a departure turn off of Runway 10R).



NA-V: Implement head to head operations during the nighttime for all aircraft (includes a departure turn off of Runway 10R).



Preliminary Noise Abatement Alternatives

NA-V: Implement head to head operations during the nighttime for all aircraft (includes a departure turn off of Runway 10R).

Benefits:

- Decrease noise west of the airport during the nighttime
- Noise would primarily remain to the east of the airport over compatible land uses
- Decreases noise impacts in 65+ DNL by 243 homes

Drawbacks:

- Would require additional air traffic coordination to ensure safety
- Some areas would receive a significant increase in noise as defined by NEPA (1.5 dB increase over noise sensitive areas)

Preliminary Noise Abatement Alternatives

- Flight Management
  - Description of problem/issue
    - The intent ... noise impacts ... performed by the pilot ...
  - List of potential solutions (alternatives)
    - NA-N: Create RNAV procedures
    - NA-O: Implement CDA procedure
    - NA-P/Q: Implement Noise Abatement Departure Procedures

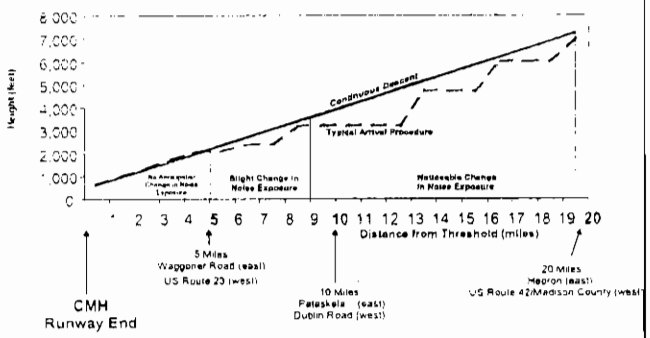
Preliminary Noise Abatement Alternatives

NA-N: Create Area Navigation (RNAV) overlay procedures for all existing and proposed departure procedures.

Benefits:
- Would reduce noise for areas adjacent to established flight corridors.

Drawbacks:
- Would increase noise for those areas under the established flight corridors.
- Could be a consuming and costly process to undertake.

NA-O: Implement a Continuous Descent Approach (CDA) for all runway ends.



Preliminary Noise Abatement Alternatives

NA-O: Implement a Continuous Descent Approach (CDA) for all runway ends.

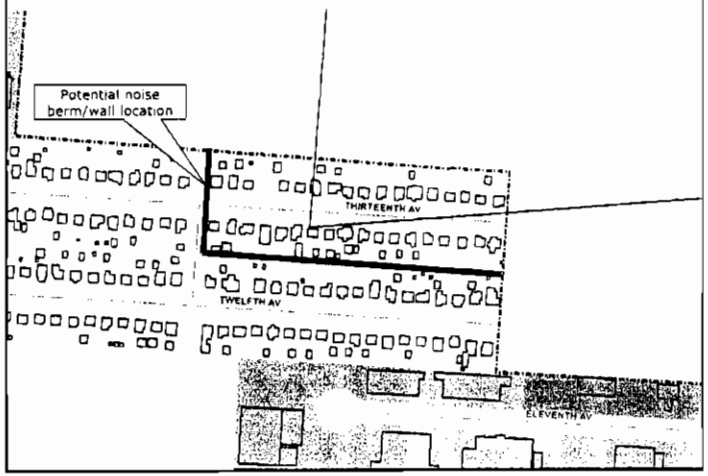
Benefits:
- Potential reduction in noise exposure ranging from 4-6 decibels at approximately 10-20 miles from the airport.
- Additional benefits to airlines by reducing fuel burn.

Drawbacks:
- Primarily in the less stages of the procedure. In the mid-nineties, aircraft were required to maintain 15 miles of radial separation which would result in significant delays during the busy periods.

Preliminary Noise Abatement Alternatives

- **Ground Noise Policies / Controls**
  - **Description of problem / issue**
    - Nighttime
    - Three
    - These
    - Evaluate
    - Location
  - **List of potential solutions (alternatives)**
    - **NA-W: Construction of sound wall**
    - **NA-X: Upgrade sound barriers / materials**
    - **NA-Z: Evaluate run-up restrictions**

NA-W: Construct a noise berm/wall



Preliminary Noise Abatement Alternatives

NA-W: Construct a noise berm/wall

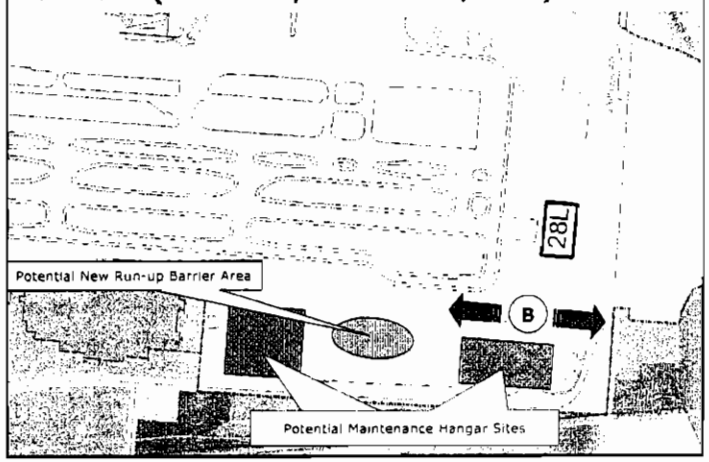
Benefits:

- Noise berm/wall would reduce noise from ground run-up activity for the homes immediately adjacent to the wall by 3-5 dB.

Drawbacks:

- Expensive to build (~$900,000 per wall).
- Has limited effect for homes located even 100 feet away from the wall. Has no effect on flight noise.

NA-X: Upgrade the Ground Run-up Barriers (location/materials/size).



Preliminary Noise Abatement Alternatives

NA-X: Upgrade the ground run-up barriers (location/materials/size).

Benefits:

- Run-up barriers reduce noise from engine run-ups by 1-10 dB depending on the number of homes and the aircraft.

Drawbacks:

- Expensive to build (>$800,000 per barrier).

Preliminary Noise Abatement Alternatives

NA-Z: Evaluate Ground Run-up restrictions.

Benefits:

- Restrictions provide guidelines for when, where, and what type of run-ups occur at the airport

Drawbacks:

- Needs to be developed in a way that does not impact the livelihood of the operators at the airport

Next Steps

- Continue evaluating alternatives
  - Coordination with ATCT/Airlines
- Please provide comments/questions by March 27th
  - Rob Adams
  - radams@landrum-brown.com
  - (513) 530-1201
- Compile a list of recommended alternatives
- Next SAC/PAC meeting – April 24
  - Concourse Hotel – 10 a.m. to 1 p.m.
- Next Workshops – April 24/25

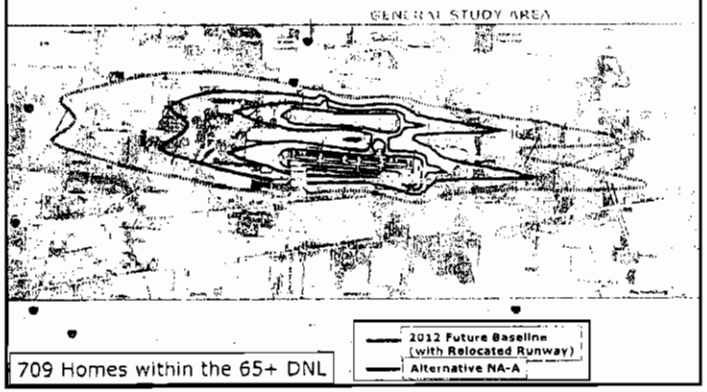
Preliminary Noise Abatement Alternatives

Supplemental Information

- Alternatives not presented

NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading.

NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading.



709 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

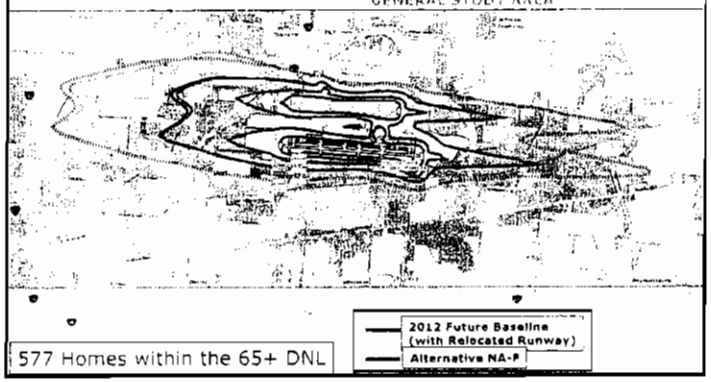
NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 deg heading.

Benefits:
- Increases capacity and reduces delays by providing ATC an additional heading

Drawbacks:
- Shifts noise from one area to another
- Increase overall noise impacts in the +65 DNL by 5 homes

NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.

NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.



577 Homes within the 65+ DNL

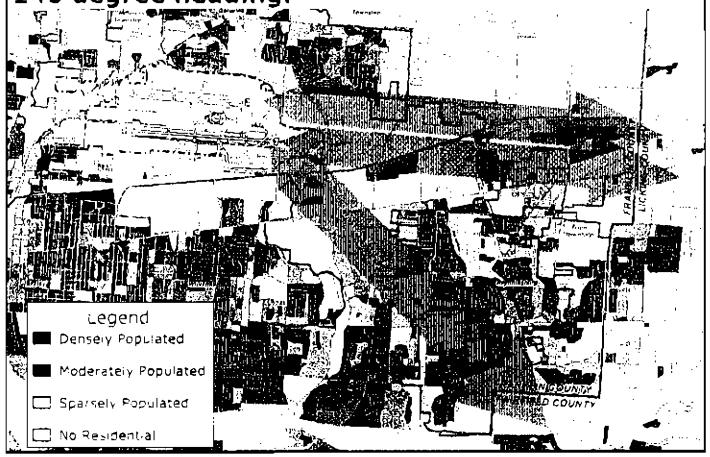
Preliminary Noise Abatement Alternatives

NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.

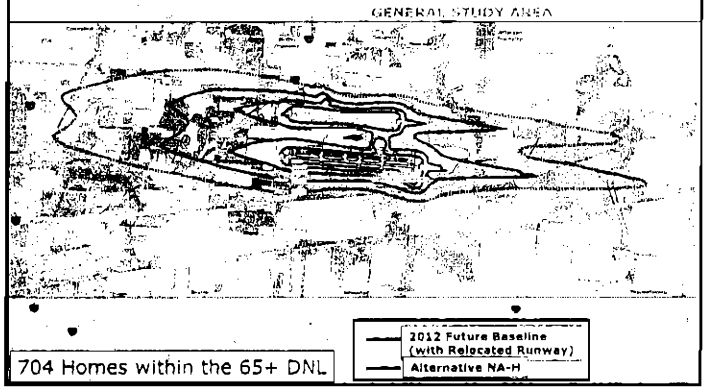
Benefits:
- Reduces noise for those areas that are located along the runway centerline.
- Decreases noise impacts in 65+ DNL by 127 homes.

Drawbacks:
- Shifts noise from one area to another.
- Will cause airspace conflicts with arrivals at Ohio State University Airport.

NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.



NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.



704 Homes within the 65+ DNL

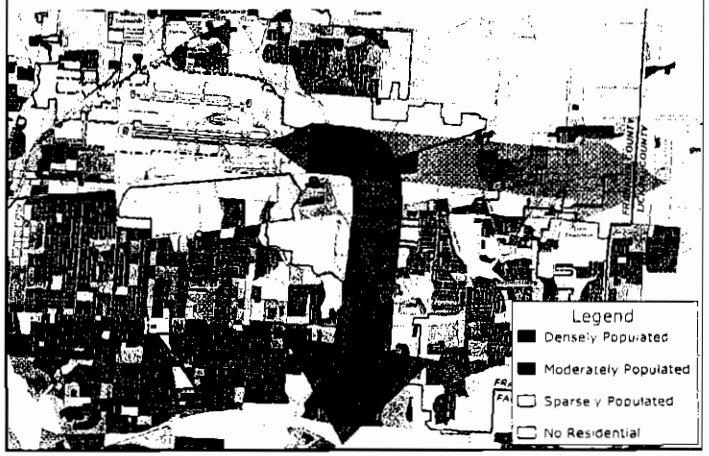
Preliminary Noise Abatement Alternatives

NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.

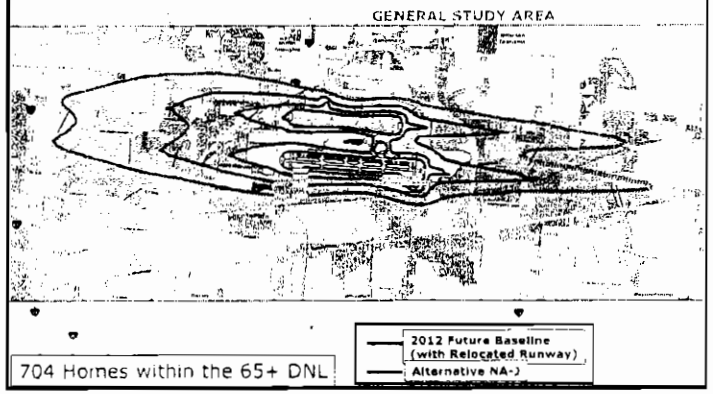
Benefits:
- Increases capacity and reduces delay by giving ATC an additional heading.

Drawbacks:
- Shifts noise from one area to another.
- No change in noise impacts in 65+DNL.
- Will cause airspace conflicts with Rickenbacker International Airport.

NA-J: All southbound traffic departing Runway 10R turn right and follow the 270 corridor.



NA-J: All southbound traffic departing Runway 10R turn right and follow the 270 corridor.



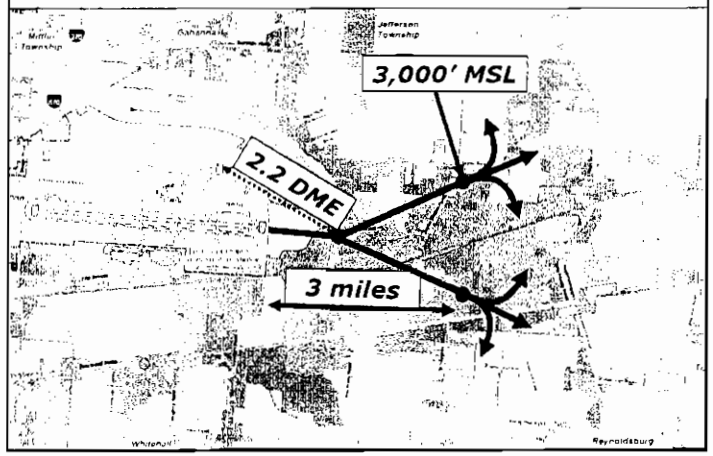
Preliminary Noise Abatement Alternatives

NA-J: All southbound traffic departing Runway 10R turn right and follow the 270 corridor.

Benefits:
- Reduces noise for those areas that are located along the runway centerline
- Decreases noise impacts between the 60 and 65 DNL by 93 homes

Drawbacks:
- Shifts noise from one area to another
- No change in noise impacts in 65+ DNL

NA-L: Modify (NA-4) current Tower Order to assign jet aircraft to prop departure.



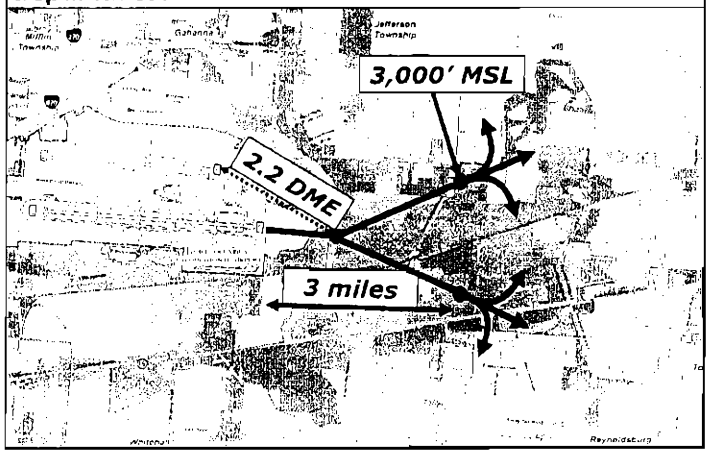
Preliminary Noise Abatement Alternatives

NA-L: Modify (NA-4) current Tower Order to assign jet aircraft to prop departures.

Benefits:
- None

Drawbacks:
- Jet aircraft would be at a lower altitude when the turn is initiated.
- Additional noise impacts may occur due to where the turns are initiated.

NA-M: Modify (NA-4) current Tower Order to eliminate the flight procedure for prop departures.



Preliminary Noise Abatement Alternatives

NA-M: Modify (NA-4) current Tower Order to eliminate the flight procedure for prop departures.

Benefits:
- Procedure was implemented to address AirNet operations at night/nighttime.
- AirNet has since relocated to LCK.

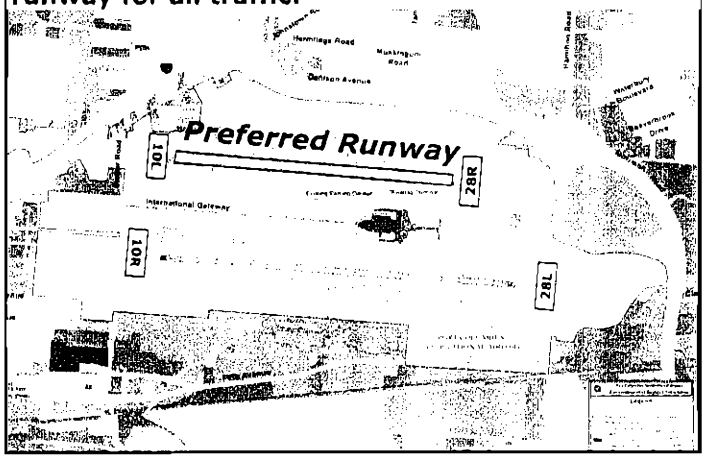
Drawbacks:
- Given the current operations, there are no drawbacks to removing the procedure.

Preliminary Noise Abatement Alternatives

NA-P/Q: Implement Noise Abatement Departure Procedures (NADP).

Description:
- FAA has developed two NADPs that are designed to reduce noise impacts in the vicinity of airports.
  - Close-in procedure results in reduced noise levels within 3 miles of the runway.
  - Distant procedure results in lower noise levels beyond 3 miles of takeoff roll.
- Procedures are most effective for Stage 2 aircraft (older engines).
- When applied to Stage 3 aircraft (newer engines) the result is generally more noise in all areas.
- Majority of aircraft at CMH are Stage 3.

NA-S: Designate Runway 10L/28R as the preferential nighttime (10:00 p.m. to 7:00 a.m.) runway for all traffic.



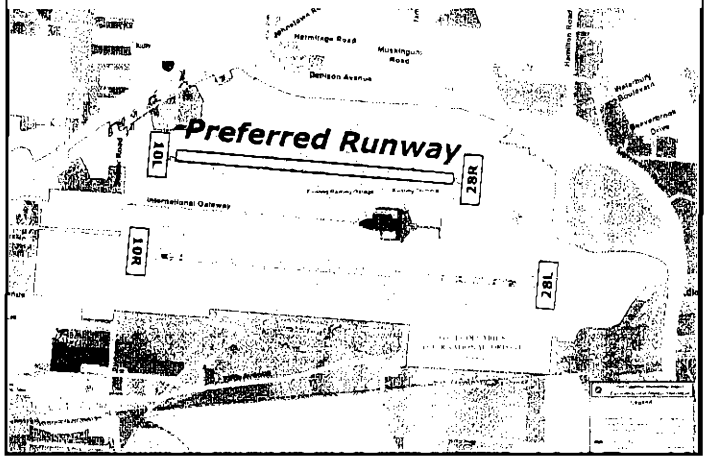
Preliminary Noise Abatement Alternatives

NA-S: Designate Runway 10L/28R as the preferential nighttime (10:00 p.m. to 7:00 a.m.) runway for all traffic.

Benefits:
- Decrease noise to the northeast and northwest of the airport

Drawbacks:
- The north runway is the shorter runway and will not be the preferred runway by the airlines
- Increase noise to the northeast and northwest of the airport
- Increase taxi time for aircraft located on the south side of the terminal

NA-T: Designate Runway 10L/28R as the preferential runway all the time.



Preliminary Noise Abatement Alternatives

NA-T: Designate Runway 10L/28R as the preferential runway all the time.

Benefits:
- Decrease noise to the southeast and southwest of the airport

Drawbacks:
- The north runway is the shorter runway and will not be the preferred runway by the airlines
- Increase noise to the northeast and northwest of the airport
- Increase taxi time for aircraft located on the south side of the terminal

Preliminary Noise Abatement Alternatives

N-V. Implement Airport Operational Restrictions (Part 161)

Description:

- [illegible]
- [illegible] these measures be used as a last [illegible] other measures will reduce or mitigate impacts

Benefits:

- Can resolve noise annoyance problems during the most sensitive periods or of the most annoying events

Drawbacks:

- Requires extensive additional evaluation, with little hope of approval given the FAA's current stance on Part 161 actions

Preliminary Noise Abatement Alternatives

Supplemental Information

- ☐ Noise Impact Tables

Existing (2006) Noise Exposure Map

Columbus	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Columbus Total	[illegible]	[illegible]	[illegible]	[illegible]
Mifflin	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	0	[illegible]
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	0	[illegible]
Gahanna Total	0	0	0	0
Grand Total	34	0	0	34
Population				
Columbus	2	0	0	2
Mifflin	32	0	0	32
Gahanna	0	0	0	0
Grand total	34	0	0	34
Churches	0	0	0	0
Schools	0	0	0	0

Future Baseline (with Relocated Runway) Noise Exposure Contours

Housing Counts				
Columbus	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Columbus Total	[illegible]	[illegible]	[illegible]	[illegible]
Mifflin	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	[illegible]	[illegible]
Mifflin Total	[illegible]	[illegible]	0	[illegible]
Gahanna	[illegible]	[illegible]	[illegible]	[illegible]
Currently in Sound Insulation Program Boundary	[illegible]	[illegible]	0	0
Outside Current Sound Insulation Program Boundary	[illegible]	[illegible]	0	0
Gahanna Total	[illegible]	[illegible]	0	0
Grand Total	704	[illegible]	0	704
Population				
Columbus	[illegible]	0	0	[illegible]
Mifflin	151	0	0	151
Gahanna	0	0	0	0
Grand total	1,739	0	0	1,739
Churches	0	0	0	0
Schools	0	0	0	0

Alternative NA-A Noise Exposure Contours

Housing Counts	[illegible]	[illegible]	[illegible]	[illegible]
Population				
Columbus	1,601	0	[illegible]	[illegible]
Mifflin	181	0	0	[illegible]
Gahanna	0	0	0	0
Grand total	1,782	0	0	1,782
Churches*	1	0	0	1
Schools	0	0	0	0

* East Mount Olivet Baptist Church

Alternative NA-B Noise Exposure Contours

Housing Counts	[illegible]	[illegible]	[illegible]	[illegible]
Population				
Columbus	[illegible]	[illegible]	[illegible]	[illegible]
Mifflin	[illegible]	[illegible]	[illegible]	[illegible]
Gahanna	[illegible]	[illegible]	[illegible]	[illegible]
Grand total	[illegible]	[illegible]	[illegible]	1,782
Churches*	[illegible]	[illegible]	[illegible]	1
Schools	[illegible]	[illegible]	0	0

* East Mount Olivet Baptist Church

Alternative NA-C Noise Exposure Contours

Housing Counts	[illegible]	[illegible]	[illegible]	[illegible]
Population				
Columbus	1,581	0	0	1,581
Mifflin	143	0	0	143
Gahanna	0	0	0	0
Grand total	1,724	0	0	1,724
Churches*	1	0	0	1
Schools	0	0	0	0

* East Mount Olivet Baptist Church

Alternative NA-D Noise Exposure Contours

Housing Counts	[illegible]	[illegible]	[illegible]	[illegible]
Population				
Columbus	[illegible]	0	0	[illegible]
Mifflin	181	0	0	181
Gahanna	0	0	0	0
Grand total	1,739	0	0	1,739
Churches	0	0	0	0
Schools	0	0	0	0

Alternative NA-E Noise Exposure Contours

Housing Counts				
Columbus				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Columbus Total				
Hilltop				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Hilltop Total				
Gahanna				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Gahanna Total	0	0	0	0
Grand Total	880	0	0	880
Population				
Columbus	1,831	0	0	1,538
Hilltop	148	0	0	181
Gahanna	0	0	0	0
Grand total	1,680	0	0	1,687
Churches	0	0	0	0
Schools	0	0	0	0

Alternative NA-F Noise Exposure Contours

Housing Counts				
Columbus				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Columbus Total				
Hilltop				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Hilltop Total				
Gahanna				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Gahanna Total	0	0	0	0
Grand Total	877	0	0	877
Population				
Columbus	1,275	0	0	1,275
Hilltop	181	0	0	181
Gahanna	0	0	0	0
Grand total	1,428	0	0	1,428
Churches	0	0	0	0
Schools	0	0	0	0

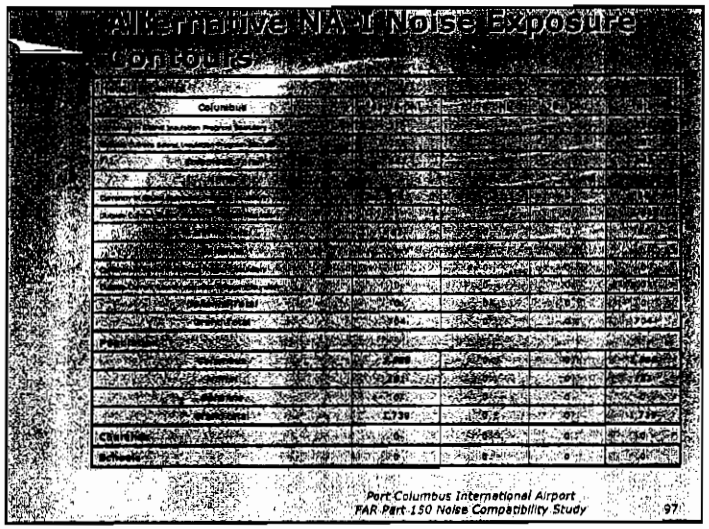
Alternative NA-G Noise Exposure Contours

Housing Counts				
Columbus				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Columbus Total				
Hilltop				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Hilltop Total				
Gahanna				
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	0	0	0	0
Gahanna Total	0	0	0	0
Grand Total	704	0	0	704
Population				
Columbus	1,589	0	0	1,589
Hilltop	181	0	0	181
Gahanna	0	0	0	0
Grand total	1,739	0	0	1,739
Churches	0	0	0	0
Schools	0	0	0	0

Alternative NA-H Noise Exposure Contours

Housing Counts				
Columbus				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Columbus Total				
Hilltop				
Currently in Sound Insulation Program Boundary				
Outside Current Sound Insulation Program Boundary				
Hilltop Total				
Gahanna				
Currently in Sound Insulation Program Boundary	0	0	0	0
Outside Current Sound Insulation Program Boundary	0	0	0	0
Gahanna Total	0	0	0	0
Grand Total	704	0	0	704
Population				
Columbus	1,589	0	0	1,589
Hilltop	181	0	0	181
Gahanna	0	0	0	0
Grand total	1,739	0	0	1,739
Churches	0	0	0	0
Schools	0	0	0	0

Alternative NA-I Noise Exposure Contours



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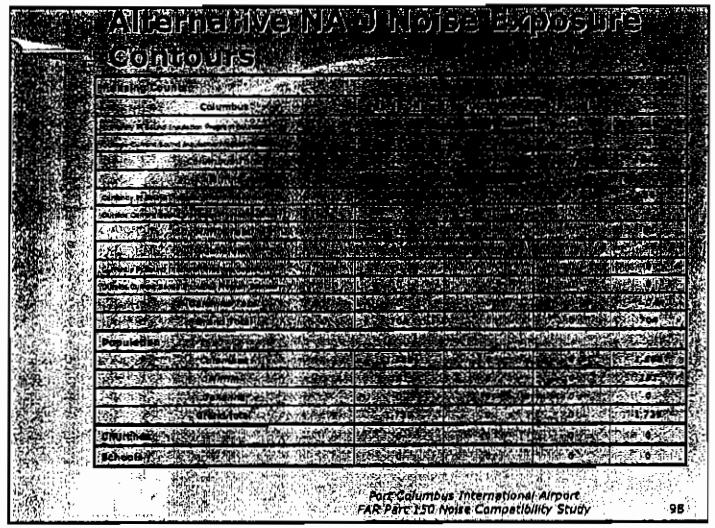
Alternative NA-J Noise Exposure Contours



Port Columbus International Airport
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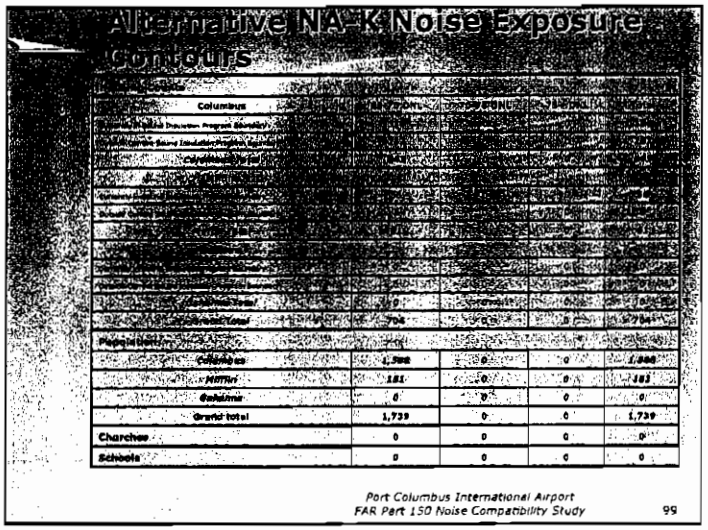
Alternative NA-K Noise Exposure Contours



Columbus	1,598	0	0	1,598
Hilliard	181	0	0	181
Bellaire	0	0	0	0
Grand total	1,739	0	0	1,739
Churches	0	0	0	0
Schools	0	0	0	0

Port Columbus International Airport
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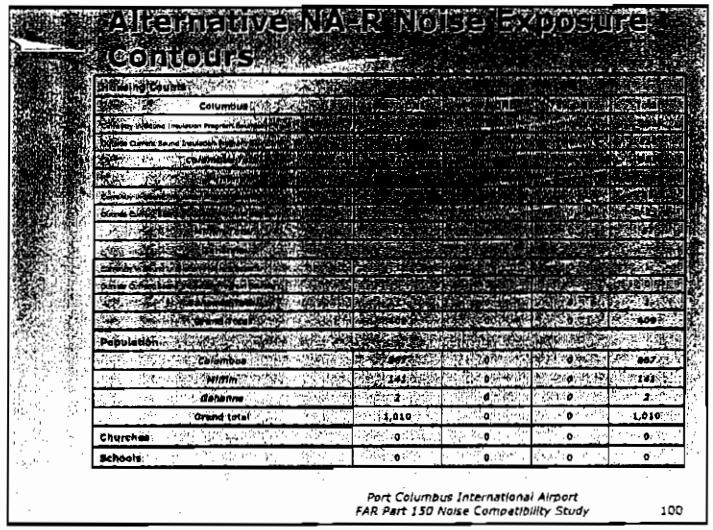
Alternative NA-R Noise Exposure Contours



Columbus	807	0	0	807
Hilliard	181	0	0	181
Bellaire	2	0	0	2
Grand total	1,010	0	0	1,010
Churches	0	0	0	0
Schools	0	0	0	0

Port Columbus International Airport
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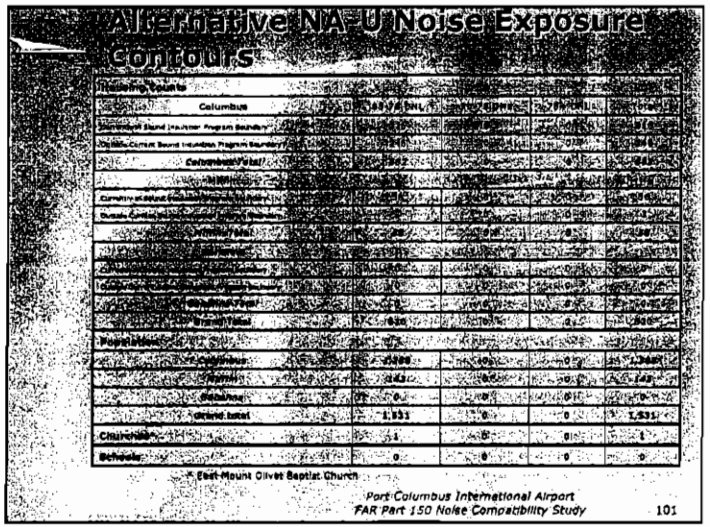
Alternative NA-U Noise Exposure Contours
Housing Counts*
Columbus
Outside Current Sound Insulation Program Boundary
Columbus/Franklin
Currently in Sound Insulation Program Boundary
Outside Current Sound Insulation Program Boundary
Grand Total
Population
Columbus
Franklin
Delaware
Grand Total
Churches
Schools
* East Mount Olivet Baptist Church
Port Columbus International Airport
FAR Part 150 Noise Compatibility Study
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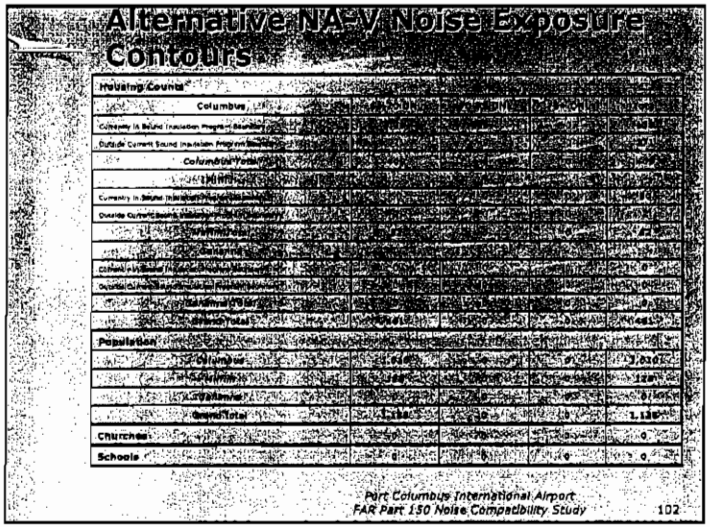
Alternative NA-V Noise Exposure Contours
Housing Counts*
Columbus
Outside Current Sound Insulation Program Boundary
Columbus/Franklin
Currently in Sound Insulation Program Boundary
Outside Current Sound Insulation Program Boundary
Grand Total
Population
Columbus
Franklin
Delaware
Grand Total
Churches
Schools
Port Columbus International Airport
FAR Part 150 Noise Compatibility Study
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COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

U.S. Department of Transportation
Federal Aviation Administration

Name
Address
Address
Address

RE: Port Columbus International Airport
Part 150 Noise Compatibility Study Update and Environmental Impact Statement
Planning Advisory Committee and Study Advisory Committee

Dear Name:

Enclosed are meeting minutes for the March 13, 2007 Planning Advisory Committee (PAC) for the Port Columbus International Airport Part 150 Noise Compatibility Study Update (Part 150). For those who were unable to attend, a copy of the handout provided at the meeting is also enclosed.

The next meeting of the PAC will be held on the same day as the Study Advisory Committee (SAC) for the Environmental Impact Statement that is being concurrently conducted by the Federal Aviation Administration. The PAC and SAC meetings will be held on:

Tuesday, April 24, 2007
Concourse Hotel and Conference Center
Meeting Rooms: Logan A&B
4300 International Gateway
Columbus, OH 43219

Please note the meeting will be held at the Concourse Hotel, which is located immediately adjacent to Port Columbus International Airport. Free parking is provided adjacent to the hotel. The SAC will meet from **10:00 a.m. to 11:00 a.m.** There will be a short break and the PAC will meet from **11:00 a.m. to 1:00 p.m.** The meetings will end promptly at 1:00 p.m. Lunch will not be served but coffee and cookies will be available throughout the morning.

An agenda for the meeting is enclosed with this letter along with a summary of the Purpose and Need for the EIS. In addition, a summary of the alternatives will be mailed to you approximately two weeks prior to the SAC meeting. Please review both of these items for questions or comments that can be discussed at the SAC meeting.

Also enclosed is a flyer with details of the Public Information Workshops that will be held on April 24th and 25th. Please use the flyer to let others who may be interested in the proposed airport development know about the Public Information Workshops. If you would like an electronic version of the flyer, please contact Melanie DePoy at the e-mail address below.

As always, we appreciate your interest in Port Columbus International Airport and your participation in these studies. Please let us know if you are able to attend the April 24th meetings by responding to Melanie DePoy of Aerofinity, Inc, by Monday, April 16, 2007. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Katherine S. Jones

Katherine S. Jones
Community Planner
Federal Aviation Administration

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

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Indianapolis, IN 46204
317.955.8395 317.955.8479 FAX

MEETING MEMO

MEETING	Port Columbus International Airport FAR Part 150 Noise Compatibility Study Planning Advisory Committee – Meeting 3
MEETING DATE	March 14, 2007

ATTENDING

A meeting attendance list is attached.

DISCUSSION SUMMARY

Dave Wall, Capital Program Manager, Columbus Regional Airport Authority (CRAA) opened the meeting by welcoming participants and thanking them for their participation. Mr. Wall introduced Rob Adams, Project Manager, from Landrum & Brown, the firm that is conducting the Part 150 Noise Compatibility Study (Part 150) on behalf of the CRAA.

Mr. Adams reviewed the day's agenda and the study schedule. He stated that alternatives for noise abatement are being reviewed during this phase of the study. He reminded participants of the brainstorming session at the December 2006 meeting in which the group had made suggestions about how noise conditions at Port Columbus International Airport might be improved. He stated that the study team has reviewed those recommendations and has identified approximately twenty-seven noise abatement alternatives from these suggestions. Because of the number of alternatives identified, only those that require input from the PAC will be reviewed at today's meeting. All of the alternatives were provided to PAC members in the meeting handout. Mr. Adams encouraged the PAC to review all of the alternatives and to contact him within the next two weeks with any questions, or to give additional input. Mr. Adams noted that there are two more PAC meetings in the study schedule, one in April and one in mid-summer. The study process is scheduled for completion in December 2007.

Mr. Adams reminded participants that in addition to the Part 150 Study being conducted by the CRAA, there is also an Environmental Impact Statement (EIS) in progress. The EIS is being conducted by the Federal Aviation Administration to assess the impacts of the proposed replacement runway and the terminal development. The Part 150 is assessing noise impacts as they would exist with the replacement runway, as well as other projects being considered in the EIS, in place. This scenario is referred to as the

future baseline. He noted that if the EIS process identifies another viable alternative, it would be evaluated through the Part 150 Study as well.

Existing and Future Baseline Noise Exposure Maps

Sarah Potter of Landrum & Brown reviewed the existing and future baseline Noise Exposure Maps (NEMs). She reminded participants that this information had been previously presented at the December 2006 meeting. She stated that most aircraft at CMH arrive to the east and depart to the west. Accordingly, the noise contours are thinner to the east and wider to the west, as aircraft are typically noisier on departure than arrival. She stated that there are fourteen homes within the existing 65 DNL noise contour.

The future (2012) baseline noise contour takes into account operations from the relocated runway and an anticipated 23% increase in aircraft operations from the existing 2006 baseline. No significant changes in the type of aircraft operating at the airport are anticipated. Ms. Potter stated that 704 homes are anticipated to be in the future baseline 65 DNL noise contour. A comparison of the existing 2006 and future 2012 baseline noise contours shows relatively the same shape, but the 2012 baseline increases in size due to the increase of operations and the shift of the relocated runway, which is to be 702 feet south of the location of the existing runway.

Ideas from Previous PAC Meeting

Sarah Potter discussed the ideas generated by the PAC at the December 2006 meeting. She stated that the ideas had been grouped into six categories as follows:

- need for divergent turns
- runway preferences
- flight track locations
- nighttime noise issues
- flight management
- ground noise policies/controls

She stated that in the review of the alternatives generated from these suggestions, the study team first considered safety. Any alternative that could not be flown safely was immediately eliminated. Other considerations included: feasibility of implementation, operational impacts (delay increases and/or conflicts with other airports), and noise impacts. Noise impacts include consideration of whether or not the alternative reduces the number of residences in the 65 DNL noise contour and whether it shifts noise from one residential area to another. Ms. Potter showed a population density map and stated that the darker colors represent more dense population. When aircraft procedures are evaluated, one of the objectives is to identify alternatives that would route aircraft operations over less densely populated residential areas. Ms. Potter stressed that all of the alternatives being presented today are preliminary.

Alternatives Considered

Divergent Turns: Current FAA Air Traffic Control Tower (ATCT) procedures instruct pilots to fly runway heading until reaching 5 miles or 3,500 feet above ground level and then to make a 15 degree turn. The ATCT has requested a review of additional degrees of divergent turns which would result in increased capacity and reduced delays. Ms. Potter reviewed the divergent turn alternatives and identified the benefits and drawbacks to capacity and delay, and the number of homes within the 65 DNL for each alternative. This information was also provided in the meeting handout.

Alternatives reviewed at the meeting are highlighted in **bold.** Information on all of the alternatives was provided in the meeting handout. The six alternatives include:

- NA-A: 15-degree divergent turn – Runway 28L
- **NA-B : 20-degree divergent turn – Runway 28L**
- **NA-E: 15-degree divergent turn – Runway 28R**
- **NA-G: 15-degree divergent turn – Runway 10R**
- NA-H: 40-degree divergent turn – Runway 10R
- **NA-K: 15-degree divergent turn – Runway 10L**

Runway Preferences: Currently, aircraft runway assignments are made based upon the passenger boarding gates the aircraft use as opposed to the final destination. The runway preference alternatives assign aircraft to a specific runway. The objective of these alternatives is to identify operating procedures that could reduce the number of residences impacted by aircraft overflight. In general, these alternatives shift aircraft operations to the east to take advantage of less densely populated areas. Three alternatives for divergent turns were identified; two were reviewed at the meeting:

- **NA-R: East flow: increase percentage of time when aircraft would arrive and depart Runway 10L and 10R**
- NA-T: Preferential use of Runway 10L/28R at all times
- **NA-U: Designate Runways 10L and 28R as preferential runways for arrivals and departures at all times.**

Ms. Potter stressed that the consulting team is still working with the ATCT on the implications of all of the runway preference alternatives.

Flight Track Locations: Like the alternatives that address runway preferences, the intent of the alternatives that address the location of flight tracks is to determine if aircraft can be flown over corridors where there is more compatible land use. Three alternatives for flight track locations were identified; one was reviewed at the meeting:

- **NA-C: Southbound departures from Runway 28L would be routed to follow the 670/70 corridor**
- NA-F: Northbound departures from Runway 28R would be turned right to a 360 degree heading
- NA-J: South departures from Runway 10R would follow the 270 corridor.

Nighttime Noise: Because noise is generally more disruptive during the nighttime hours (10:00 p.m. to 7:00 a.m.), alternatives were identified to address nighttime operations. Six alternatives for nighttime noise were identified; three were reviewed at the meeting:

- **NA-D: New arrival procedure for Runway 28L**
- **NA-I: New departure procedure for Runway 10R**
- NA-L: Modify the current tower order to assign jet aircraft to propeller departure procedure
- NA-M: Modify the current tower order to eliminate the flight procedure for propeller departures
- NA-S: Designate Runway 10L/28R as the preferred runway for nighttime operations

- **NA-V: Focus aircraft to the east of the airport by conducting arrivals on Runway 28R and departures on Runway 10R.**

Flight Management: The intent of the flight management alternatives is to decrease noise impacts by implementing procedures that are performed by the pilot in the cockpit. Three alternatives for flight management were identified; two were reviewed at the meeting:

- **NA-N: Create RNAV procedures**
- **NA-O: Implement Continuous Descent Approach procedure**
- NA-P/Q: Implement Noise Abatement Departure Procedures

Mr. Adams explained that there are many factors that influence where the aircraft fly. Two of these factors are whether or not a pilot is flying the procedure accurately and winds that can influence the position of the aircraft on the intended flight path. RNAV are satellite based navigational aids that are used by pilots to allow the aircraft to be flown in a more precise corridor. Mr. Adams explained that departure corridors are typically one to one and one-half miles wide. With satellite-based technology, the corridors can be reduced to approximately one-half mile wide. In addition to having a positive impact on aircraft noise, these procedures can also result in more efficient aircraft fuel utilization.

Mr. Adams also explained that the Continuous Descent Approach Procedure is still in the test phases within the air traffic control system. He explained that today's typical approach procedure "steps" an aircraft down from high altitudes at specific intervals. The Continuous Descent Approach Procedure would start twenty miles from the airport and the aircraft would descend at a consistent rate. The procedure was originally designed for fuel savings; it is now known that there are noise benefits as well. Mr. Adams stated that people who live ten miles and beyond the airport would notice a change with the Continuous Descent Approach Procedure. He suggested that CMH might be a test sight for this procedure and that the consulting team would continue to monitor the use of this procedure within the industry.

Ground Noise Policies/Controls: The CRAA currently has a nighttime ground run-up policy in place for aircraft that are undergoing maintenance. There are three existing noise barriers where engine maintenance is conducted. The alternatives considered for ground noise controls evaluated the current run-up policy and reviewed the location, materials and size of the current noise barriers to determine if they are adequate. Three alternatives for ground noise policies and controls were identified and reviewed:

- **NA-W: Construct a noise berm/wall**
- **NA-X: Upgrade run-up barriers/materials**
- **NA-Z: Evaluate run-up restrictions**

Mr. Adams provided an illustration of a potential location for the construction of a noise berm/wall. He stated that the FAA requires the runway protection zone (RPZ) off the end of the runway to be clear of all structures. Mr. Adams showed the area of homes that would need to be acquired to provide a clear RPZ. He stressed that both the acquisition area and the location of the potential noise berm/wall are preliminary and that there will be additional review of these issues within the EIS.

Mr. Adams also showed the location of the current ground run-up barriers. Barrier "B" shown on the illustration provided in the meeting handout could potentially be widened to accommodate larger aircraft or

relocated to the area depicted in blue in the meeting handout. The need for a relocated barrier would depend on the planned location of future hangars. During preliminary review, it appears that the locations of the other ground run-up barriers are appropriate. He also stated that it is unlikely that CMH would have the type of heavy aircraft maintenance that would require them to construct the next "level" of ground run-up enclosure, known as a "hush-house." He provided a preliminary estimate of approximately $800,000 to construct a run-up barrier. Stacey Heaton of the CRAA staff clarified that the cost could be more due to the requirement to provide taxiway access to the area.

Next Steps

Mr. Adams stated that the consulting team would continue to further evaluate and refine the alternatives in cooperation with the FAA Air Traffic Control and the airlines. He asked the PAC members to call with any questions or comments by March 17. Contact information for Mr. Adams was provided in the meeting handout.

Melanie DePoy of Aerofinity provided details for the next PAC meeting. She stated that the PAC meeting would again be held on the same day as a Study Advisory Committee meeting for the EIS. In addition, she stated that the next Public Information Workshops for the Part 150 and the EIS would be held on April 24 and April 25. She noted that there is a new location for the April 24 Public Workshop to try to encourage more public participation. It will be held at Oakland Park at Brentnell Elementary. Ms. DePoy provided flyers for PAC members to provide neighborhood associations and others to notify them of the Public Workshops.

Questions and Comments

A question was asked about what would happen to the homes along 13th Avenue.

Mr. Adams responded that the homes within the RPZ would be purchased and removed. Katie Jones of the FAA noted that the actual acquisition area has not been determined at this time. That determination would be made through the EIS process.

A comment was made that the run-up barrier should be built to a future growth scenario to save money in the future.

Mr. Adams responded that the point was valid. However, the forecasts prepared for CMH indicate that the type of barrier currently at the airport should continue to be sufficient for the long-term as the type of aircraft maintenance that would require the next level of barrier is not anticipated to occur at CMH.

A question was asked about how the modeling of the alternatives was occurring?

Mr. Adams responded that the alternatives were being modeled separately, but would also be modeled together to determine which combination of alternatives would be the most effective for CMH to maintain capacity, reduce delays and impact the least number of residents.

A question was asked if hotel rooms were counted as dwelling units?

Mr. Adams responded that they were not counted only places of permanent residence were included in the counts. He also stated that many hotels located near airports have some sort of sound insulation built in during construction.

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3945 Bridgeway Avenue
Columbus, OH 43219

Dr. Harold E. McDaniel, President
St. Mary's Civic Association
979 Wellington Blvd.
Columbus, OH 43219

Public Information Workshop #3
April 24, 2007 & April 25, 2007

Newspaper Notice
CRAA Press Release
Registration
Handout
Comments

THE COLUMBUS DISPATCH
PROOF OF PUBLICATION

STATE OF OHIO, FRANKLIN COUNTY. SS:

Carla Daniel
Classified Sales Manager

The Columbus Dispatch, a newspaper published at Columbus, Franklin County, Ohio, with a daily paid circulation of more than 25,000 copies, personally appeared and made oath that the notice of which a true copy is hereunto attached was published in The Columbus Dispatch for 2 Time(s) on

March 27, April ,22, 2007

and that the rate charged therefore is the same as that charged for commercial advertising for like services.

Carla Daniel

subscribed and Sworn on this 23rd day of April 2007 as witness my hand and seal of office.

Veronica H. Hill

NOTARY PUBLIC - STATE OF OHIO

NOTARIAL SEAL
STATE OF OHIO

VERONICA H. HILL
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES NOVEMBER 6, 2008

Public Workshops

on Environmental Study
and Part 150 Noise Study
concerning Proposed Expansion at
Port Columbus International Airport

New Location

The meetings will be held at:

Oakland Park at
Brentnell Elementary School
1270 Brentnell Avenue
Columbus, OH

Tuesday, April 24, 2007
5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH

Wednesday April 25, 2007
5 p.m. - 8 p.m.

Project Website: www.airportsites.net/cmh-eis

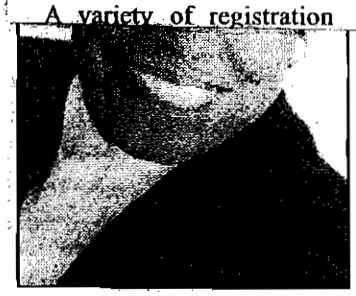
The same information will be presented at both meetings. No formal presentations are planned-stop in anytime.

ll women

kind opportunity to be in the same room with so many powerful women. It will be an empowering experience for everyone!"

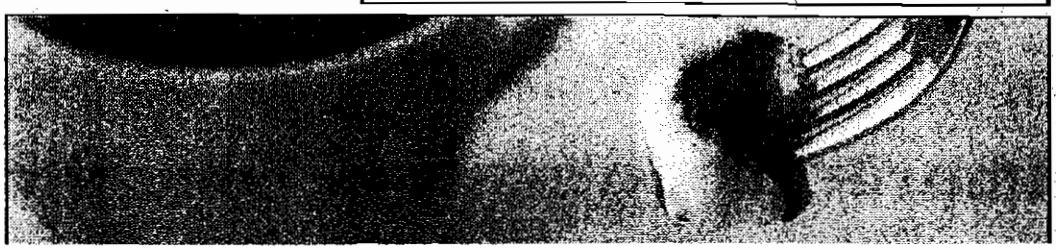
For the first time in the five-year history of the Women of Color Foundation, Women of Color events will be held in four Midwest Cities: Cleveland, Columbus, Cincinnati, and Chicago.

A variety of registration



Betty Howton

Louise Giddendaner



Community

April Firefighter of the Month selected

Columbus Firefighter Paul B. Martin was selected by his officers and peers as the April [illegible] the Month.

fication specialist, Firefighter Martin is responsible for tracking all medical training that is delivered by the Division of

Excellence for his outstanding service and dedication to the city of Columbus. He is a 1981 graduate of Lancaster High

License law take effect Friday, April 6.

• Probationary driver license holders under the age

• Probationary driver license holders between 17 and 18 years of age will be restricted from driving between the hours of 1 a.m.

exceptions as above. This is a change to the previous restriction of 1 a.m. to 5 a.m.

• Permit holders under the age of 18 will be prohibited from driving between the hours of midnight and 6 a.m., unless accompanied by a parent, guardian or legal custodian who holds a valid license. This is a change to the previous restriction of 1 a.m. to 5 a.m.

• If a probationary driver license holder under the age of 17 is convicted of having committed one moving violation during the first six months of having a driver license, the person must be accompanied by a parent or guardian whenever operating a motor vehicle during the six-month period commencing on the date on which the person is convicted of or pleads guilty to the moving violation or until the person attains the age of 17.

To view the amended legislation, visit www.legislature.state.oh.us/bills.cfm?ID=126+HB_343_PS.

Public Workshops

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LEVY

Continued from page A1

ers for new levies, he said.

The township could have asked for a renewal levy instead, but it would be collected at the current effective rate, which is revised down as property values increase. In Ohio, levies are collected at "effective rates" so

"We've had confidence that this is going to pass," he said, "but you're always worried."

SHARPS

Continued from page A1

of tragic medic runs that remain vivid in his memory. One image that still chokes him up is of two 10-year-old girls, twins, standing in front of their decorated tree as

Truro Township served far fewer people when Sharps started his career. The fire department had four men on a shift, compared to 11 now.

He has seen the department through that growth and through the opening of its second fire sta-

E-mail: **editorial@thi**

Coming up

Continued from page C4

Mothers of School-Age Children (MOSAC), noon to 2 p.m. the first Tuesday of the month at St. Matthews Church, Havens Corners Road. Call Kitty Bauman at 476-6110.

Parents of children with epilepsy meet from 6:30-8:30 p.m. Tuesday, April 17, at the Epilepsy Foundation Office, 510 E. North Broadway in Clintonville. No fee. Childcare available if registered. Call 261-1100.

Adult Epilepsy Support Group, 7 p.m. the first and third Wednesdays of the month at the Epilepsy Foundation, 510 E. North Broadway, Suite 400. Call 261-1100.

Alzheimer's Caregiver Support Group, 6:30-8 p.m. Wednesdays at Columbus Alzheimer's Care Center, 700 Jasonway Ave. Open to anyone affected by Alzheimer's disease. Call 459-7050.

Bipolar Anonymous, 7 p.m. Thursdays at Maple Grove United Methodist Church, 7 W. Henderson Road. Call 895-1002.

Bone Marrow Transplant Support Group, 7-8:30 p.m. the third Thursday of the month in Room 518 at the James Cancer Hospital, 300 W. 10th Ave. Call 293-9152.

Breast Cancer Support Group, led by a psychologist, social workers and registered nurses. The groups are ongoing; join any time. Call (614) 898-8517.

Government

Gahanna City Council meets the first and third Mondays of the month at 7:30 p.m. at Gahanna City Hall, 200 S. Hamilton Road.

Mifflin Township trustees meet the third Tuesday of the month at 6 p.m. at the township meeting hall, 155 Olde Ridenour Road.

Jefferson Township trustees meets at 7 p.m. on the second and fourth Tuesdays of the month at the township hall, 6545 Havens Road.

Gahanna Civil Service Commission meets at 6:30 p.m. on th first Tuesday of the month at Gahann City Hall, 200 S. Hamilton Road.

Gahanna Parks and Recreatio Board meets at 7 p.m. the firs Wednesday of the month at Gahann City Hall, 200 S. Hamilton Road.

Gahanna Landscaping Boar meets at 6 p.m. the first Wednesda of the month at Gahanna City Hal 200 S. Hamilton Road.

Gahanna Planning Commissio meets at 7 p.m. the second and fourt Wednesdays of the month at Gahann City Hall, 200 S. Hamilton Road.

LIPPMAN

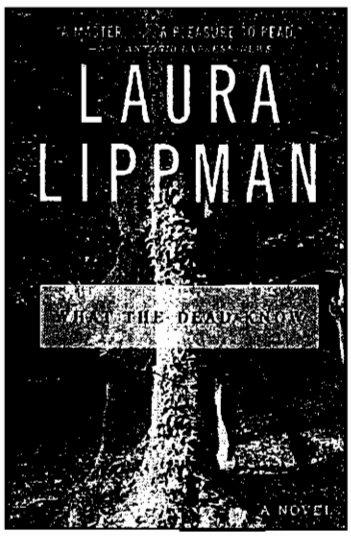
Continued from page B4

ing person case involving two missing sisters. The case remains unsolved, and served as little more than a touchstone for the author's wholly fictional examination of the ramifications of the disappearance of a pair of siblings from a mall in 1970s Baltimore.

Lippman said a frequently asked question along her author tour has been whether or not she attempted to contact the family members of the actual missing girls.

"I thought a lot about it," Lippman said. "Not so much from a research point of view, because the fact of the matter is, I did as little research as possible because I wasn't writing about the real story. It's as different as possible from what happened in real life because (the book) is going to provide an answer."

She ultimately decided against making contact: "I thought I'd be doing that for myself. Inevitably, if I call, I'm seeking some sort of permission, or benediction and I don't think I'm necessarily entitled someone reading a novel



It does tell you why something happened, even if it does turn out to be somewhat random or not exactly planned, as in *What the Dead Know*.

"At the same time, while crime fiction is doing that, I think it can become a vehicle for allowing people to confront, however obliquely, the terrifying knowledge that real life is even more random. I think minute. It's very seldom that I think I've even had a good working title."

The new novel draws its title from a Bible passage. "It was a weekend in August and I had gone to visit my folks and I began reading poetry, and reading Bartlett's and reading the Bible — all the usual suspects. I went back to Ecclesiastes, which provided the title for *Every Secret Thing* and found this passage, 'Pity the dead, for the dead know nothing,' and it really resonated for me."

It also echoed a passage Lippman had already written into her novel. "I thought, 'Hey, this is not only a good title, it actually fits with something I wrote.'"

Many writers, publicly or privately, express discomfort going from the solitude of writing to having to speak publicly about their work. Lippman is one of those rare authors who has no problem making the transition. "I'm very social," she says. "I think in my family it's, 'She's pathologically gregarious.'

"Given my druthers, I'd probably sleep in my own bed every

Views On Dental Health

Jerry Benis D.D.S.
General Dentist

DENTURE WEARERS STILL NEED DENTISTRY

Perhaps the most common misunderstanding about dentures is the impression that when all the teeth are removed, the patient no longer needs dentistry. Nothing could be further from the truth.

Dentures do wear out. Their life span varies with the materials used in construction and the load that is applied. As wear occurs, the denture teeth lose their cutting grooves. The height of the denture is reduced causing deterioration of the supporting gum and bone structure. Patients should remember that when these bone structures are reduced there is less foundation left to hold the dentures stable, and good function becomes difficult.

Contributing to the problem are the adhesives and relining materials readily available in any drug store. These often enable a patient to continue wearing an ill-fitting appliance rather than seek help.

Prepared as a public service
to promote better dental health
From the office of:
Jerry Benis D.D.S.
Scott Kelly D.D.S.
868-0808

Public Workshops

on Environmental Study
and Part 150 Noise Study
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No formal presentations are planned -- stop in anytime.

04-22-2007
FOR IMMEDIATE RELEASE

Public Workshops on Port Columbus Noise Compatibility, Airport Expansion Slated for Tuesday & Wednesday

COLUMBUS - Public Information workshops for the Port Columbus International Airport Noise Compatibility Study will be held Tuesday, April 24 and Wednesday, April 25. These workshops will be held in conjunction with the Federal Aviation Administration's workshops scheduled to collect additional comments on its initial environmental analysis of proposed expansion at Port Columbus.

The Columbus Regional Airport Authority initiated the Noise Compatibility Study in 2006 to document the levels of noise from aircraft operations at Port Columbus. The Noise Compatibility Study at Port Columbus is intended to update existing noise exposure contours and develop a balanced and cost-effective plan to reduce current noise impacts from aircraft operations, where practical, and to limit the potential for future impacts. The FAA will be hosting workshops to gather oral and written public comments as it develops an Environmental Impact Statement (EIS) that focuses on the airport's proposed construction of a new south runway to replace the current south runway, new taxiways, new terminal facilities in the midfield area and other airport improvements.

Residents, business owners and concerned citizens are encouraged to attend the workshops to provide input and ask questions. There will be no formal presentations, so people are invited to attend anytime during the workshops.

Details of the Workshops Dates: Tuesday, April 24 & Wednesday, April 25 Time: 5 p.m. to 8 p.m Locations: Brentnell Elementary School, 1270 Brentnell Ave., Columbus on April 24 Whitehall Community Park Activities Center, 402 N. Hamilton Rd, Whitehall on April 25

For more information contact Angie Tabor, Manager of Communications for the Columbus Regional Airport Authority, at (614) 239-4081 or ATabor@ColumbusAirports.com.

- End -

x close window

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 24, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Jewel Neely	1651 Brentnell Ave	(614) 258-6477
Marlyn S. Price	1587 DePorres Dr. Cols. 43219	(614) 258-0536
John M Smith	2211 Delaware Dr	614 253 2298
Elnora Upshaw	1647 DePorres Dr.	253 1482
Dorothy Craig	1703 Geraldine Ave	252 5300
Christine Reed	2321 Dunkirk Ln. 19	475 6582
Mary Dewberry	2437 Delaware Dr	475-2469
Gladys Turner	1701 Marina Dr.	252-0124
Belinda Woods	1941 Dunning Rd	475-2953
Carole Witcher	2514 Peckskill Dr	471-0580

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PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 24, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Ronald McGavin	1094 Roxbury Ct	614-252-5703
Faye R. Yuill	2420 Somersworth Dr. N.	614-253-6949
Mary D. Harris	2304 Somersworth Dr N	614-252-4167
Dwayne A Farney	3198 E. 13th Ave	614-252-3504
Jose Phine Trent	2130 Lisa Dr	614-258-8795
MARIAN HAWKINS	1306 BROOKCLIFF AVE	(614) 252-1849
Thomas Wagnott	2157 argyle Dr	614-25-3-6614
Carol Johnson	1994 Hayle dr	6142911952
Louise Fickling	2064 argyle Dr	614-238-9826
Venola Myers	2022 Holt Ave.	614-258-3125

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PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 24, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Dolly S. Jackson	1703 Marina Dr	614-258-8318
Herbert H. Henderson	2083 Argyle Dr	614-251-0236
Milton Curry	1921 Edenburgh Dr E	614 475-3216
Charles Clements	2545 Newburg Dr.	(614)471-9328
Steve Smith	1018 Parkview Blvd	614-253-3875
Charles Lock	2019 Marston Rd	614-258-2672
James Corbitt	2174 Oriole Place	614-253-6669
Marilyn Partlow	2087 W Dodward Av	614-253-0934
Betty Miser	2204 Sagamore Rd	614-252-2715
Edith McIntosh	1960 Brocton Rd	614-475-4121

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PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 24, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Frances E. Bond	2112 Terri St	253-0674
Barbara Hamilton	3262 Long Spruce Rd	614 915 6426
Chanola Phillips	1291 Brentnell	614 374 8480
Cathalyn & Steve McGhee	1698 Marina Drive-Cols OH 43219	614 253-7771
Lelia M. Neely	1675 Delordes Drive	614-252-0505
Eloise Summers	1717 Geraldine Ave	614-252-3356
Ben Jones	1089 Wellington Ave	614 [illegible]
Lawrence & Jacquely Putnam	1165 Delordes Dr	614 372-1602
Fashun Powell	1052 Dalehurst Rd	614-258-8040
John R Martin	1431 DUBAY Av.	(614) 253-5040

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PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 24, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Alan + Rosa Archie	1623 Brentnell Ave	
Beulah Bonner	2525 Jai ave	
Anna M. Powell	3186 E. 13th Ave	253-6339
James T. Wilson	2696 Mock Rd	471-8866
Vincent Kelley	1609 DePorres Dr	
James E. Womack Jr.	1593 DePorres Dr	252-0314
Bryan M. Thompson	3212 E 13th Ave 43219	614-253-2287
Marva Martin	1633 Karon Dr.	614-253-2711
Vanessa Curry	2100 Argyle Dr	614-257-1038
Pamla McIntosh	1966 Bar Harbor Rd	614-471-4461

Page __ of __ 5

NAME	ADDRESS	PHONE
Tanis Hudgins	2702 Roxbury Dr 43219	614 258-9922
Dawana Martin	1000 Sunbury Rd	614 378-2000
Barbara Crabill	2735 Powell Ave. Bexley 43209	231-2250
Katrina Cheatham	2484 Broctan Ct 43219	(614) 394-5797 C
WM H. Adams	2978 E. 12th Ave.	451 5104 H 298-8763
Verdine Griffin	2066 Hart Ave 43219	253-3095
Pamela Trent	1686 Karon Dr. 43219	614 253 8289
Charlotte Chapman	1368 Dubay Ave Cols 43219	253-2894
Norman R. Heilig	2400 Somersworth Dr N Cols 43219	258-3864
Tricia Hunter	2052 Argyle Dr Col., OH. 43219	203-8670
Anthony Hunter	2052 Argyle Dr	614-203-8682
Cathy Ferraji	2160 West Cape Rd, Col. 43235	614-292-5823
Azeez Akbar	2277 Argyle Dr, Col. OH 43219	614-282-8323
Ruth Armstrong	1663 DePorres Dr Cols OH 43219	614 253-1841
Madeleine Gentry	272 Sherborne Dr	614 252-8864
Martha Comuntzis	2501 Bar Harbor Pl	614-428-8244

NAME	ADDRESS	PHONE
Kai Taiyn Stewart	1555 DeForres Drive	264-4150
Honor Sylvia Hooper	2517 Bethesda Ave	252-2270
TELSA LEIGH	2136 Argyle Dr	614-252-0813
Charlotte Frazier	2389 Dunkirk Dr	471-9460
Emanuel Frazier	2389 Dunkirk Dr.	471-9460
Helen McKinley	2382 Dunkirk Dr.	475-6720
Lillian Camble	1315 Brentwood Ave	253-2674
Debbie McClendon	2152 Leonard AVE	253-4238 cell→3746224
Tom + Sheila Breckenridge	1674 MARINA Dr	937-5978

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 25, 2007 - Whitehall Community Park Activities Center
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
DAVID WALL	4600 INTERNATIONAL GATEWAY COLUMBUS, OH 43219	(614)239-4063
BERNIE MELESKI	" "	-4042
[illegible]	1024 County Club Rd	829-9138
Dave Clawson	4600 International Gateway Columbus, OH 43219	614-239-5059
Lydia Short	2479 Mercedes Dr. Columbus, Ohio 43219	(614) 258-6330
Sandra Davis	3192 E. 13th. Ave. Colo, Ohio 43219	614-252-9595
Donald J Ramey	2445 AIRPORT DR COLUMBUS OHIO 43219	614-253-8131
Dick Lyson	341 Buckingham Ct, Gahanna, Ohio 43230	614 475-1400
Mark Linsker	2445 E. Fifth Ave Col. Ohio	614-253-9337
MR & MRS Willie & Patricia Brown	2247 Arnaggle Dr	(614) 253-3953

Page 1 of 2

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP
April 25, 2007 - Whitehall Community Park Activities Center
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Harold Slager	4094 Powell Ave	614-585-8899
MITCH DANICU	13312 Jug St. JOHNSTOWN, OH 43031	614: 296-1269
John P Moore	1095 Shrewsbury Rd Col OH 43217	614 253 8425
K.S. Moody	2620 Drake Rd. Col. 43219	476-4111
[illegible]	5969 Taylor Rd	
Glenda Zinchart	866 Harmony Dr 43230	

Page 2 of 2

Purpose of Tonight's Meeting
Tonight is the third in a series of workshops that are being held to invite public comment on the findings of a Part 150 Noise Compatibility Study being conducted by the Columbus Regional Airport Authority (CRAA). Proposed improvements at Port Columbus International Airport (CMH) include the replacement/relocation of the airport's south runway and the development of a new passenger terminal to supplement the existing passenger terminal. The purpose of the Part 150 Study is to identify the noise impacts of these projects on the surrounding community and to develop mitigation measures to help minimize these impacts.

The CRAA is updating the Part 150 Noise Compatibility Study at the same time that the Federal Aviation Administration (FAA) is preparing an Environmental Impact Statement (EIS) for the proposed projects. The EIS analyzes and discloses all of the environmental impacts caused by proposed projects including noise impacts. Tonight's workshop is being held jointly with an EIS workshop to encourage public comment on both studies. The results and recommendations of the Part 150 Study will be included in the EIS.

Information Available at Tonight's Workshop
Part 150 of the Federal Aviation Regulations provides guidance for conducting a Noise Compatibility Study. There are two components to the study process. The first component is to identify the Noise Exposure Maps (NEMs) and the second is to develop a Noise Compatibility Program (NCP). The NEMs developed as part of this study process have been reviewed at the two previous workshops.

Tonight's workshop will focus on the NCP which sets forth measures intended to mitigate the impacts of significant noise exposure on residential areas near CMH, and to limit, to the extent possible, the introduction of new land uses into locations exposed to significant noise levels. Levels of significance are identified in the Federal Aviation Regulations. NCP measures include noise abatement, land use mitigation, and implementation measures.

The CRAA has developed a number of procedures and programs over the last 15 years to reduce or mitigate noise impacts. Many of these measures will be recommended to be carried forward in this updated Part 150. In addition, NCP measures are also being considered to address new noise impacts resulting from the relocated runway.

FAR Part 150 Noise Compatibility Study
PORT COLUMBUS INTERNATIONAL AIRPORT
Public Information Workshops April 24/25, 2007

Noise abatement measures address aircraft operating procedures. Alternatives being considered for noise abatement include the use of divergent turns, preferential runway use, flight track locations, nighttime noise, flight management and policies and controls to address ground noise. Alternatives being studied to address each of these alternatives are listed below. Measures shown in **bold** are being recommended for more detailed study.

Divergent Turns
Current FAA Air Traffic Control Tower (ATCT) procedures instruct pilots to fly runway heading until reaching 5 miles or 3,500 feet above mean sea level and then to make a 15 degree turn.

- All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading. (Measure NA-A)
- All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 260 degree heading. (Measure NA-B)
- **All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.** (Measure NA-E)
- All traffic departing Runways 10R turn right 15 degrees after crossing the runway end to a 115 degree heading. (Measure NA-G)
- All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading. (Measure NA-H)
- All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading. (Measure NA-K)

Runway Preferences
Currently, aircraft are assigned which runway to depart from based upon where they are departing from in the airport terminal and their destination. In order to reduce the number of residences impacted by aircraft overflight, these alternatives would require aircraft to depart on a specific runway regardless of where they are departing from in the airport terminal or their final destination. In general these alternatives consider shifting aircraft operations to the east to take advantage of less populated areas.

- **Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R).** (Measure NA-R)
- Designate Runway 10L/28R as the preferential runway all the time. (Measure NA-T)
- Designate Runway 10R/28L as the preferential runway all the time. (Measure NA-U)

Flight Track Locations

Like the alternatives that address runway preferences, the intent of the alternatives that address the location of where the aircraft fly (flight tracks), are to determine if aircraft can be flown over corridors where there is more compatible land use.

- All southbound traffic departing Runway 28L turn left and follow the I-670/70 corridor. (Measure NA-C)
- All northbound traffic departing Runway 28R turn right to a 360 heading. (Measure NA-F)
- All southbound traffic departing Runway 10R turn right and follow the I-270 corridor. (Measure NA-J)

Nighttime Noise

Because noise is generally more disruptive to residents during the nighttime hours (10:00 p.m. to 7:00 a.m.), alternatives have been identified to address nighttime operations.

- **Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L.** (Measure NA-D)
- **Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.** (Measure NA-I)
- Modify (NA-4) current tower order to assign jet aircraft to prop departure procedure. (Measure NA-L)
- **Modify (NA-4) current tower order to eliminate the flight procedure for prop departures on Runway 10R.** (Measure NA-M)
- Designate Runway 10L/28R as the preferential nighttime (10:00 p.m. to 8:00 a.m.) runway for all traffic. (Measure NA-S)
- **Implement head to head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R).** (Measure NA-V)

FAR Part 150 Noise Compatibility Study
PORT COLUMBUS INTERNATIONAL AIRPORT
Public Information Workshops April 24/25, 2007

Flight Management

The intent of the flight management alternatives is to decrease noise impacts by implementing procedures that are performed by the pilot in the cockpit of the aircraft.

- **Create Area Navigation (RNAV) overlay procedures for all existing and proposed departure procedures.** (Measure NA-N)
- **Conduct a study of CDA procedures to determine applicability/feasibility at CMH.** (Measure NA-O)
- Implement Close-in Community Noise Abatement Departure Profiles (NADP). (Measure NA-P)
- Implement Distant Community Noise Abatement Departure Profiles (NADP). (Measure NA-Q)
- Implement Airport Operational Restrictions (Part 161). (Measure NA-Y)

Ground Noise Policies/Controls

The CRAA currently has a policy in place that requires aircraft that are undergoing maintenance run-ups to be located at one of three existing noise barriers. The alternatives considered for ground noise controls have considered the current run-up policy and reviewed the location, materials and size of the current noise barriers to determine if they are adequate.

- **Construct a noise berm/wall.** (Measure NA-W)
- **Upgrade run-up barriers (location/materials/size).** (Measure NA-X)
- Implement Airport Operational Restrictions (Part 161). (Measure NA-Y)
- Evaluate Ground Run-up restrictions. (Measure NA-Z)

Next Steps

After receiving public input on the alternatives being considered, the next step in the Part 150 Study process is to continue consultation with the CRAA, the FAA Air Traffic Control Tower personnel and the airlines to finalize the noise abatement alternatives. When the noise abatement alternatives have been finalized, analysis of the residential areas that fall within the 65 DNL noise contour will be initiated to determine alternatives for land use mitigation. This information will be presented at the next set of public information workshops.

FAR Part 150 Noise Compatibility Study

PORT COLUMBUS INTERNATIONAL AIRPORT

Public Information Workshops — April 24/25, 2007

A date for the next set of public information workshops and a public hearing on the Part 150 has not been set at this time, but is anticipated to occur in late **Summer/early Fall of 2007**. Dates and locations for these workshops will be published as soon as they are determined.

Public Comments Encouraged

The Noise Compatibility Study process is designed to encourage public comment. Workshops are conducted in an open house format where the public can attend anytime during workshop hours. Representatives of the FAA, airport staff, and consulting team will be available throughout the evening to answer questions or discuss specific issues. For public convenience, the workshops are held on consecutive nights. The same information is being presented at each workshop.

The public is also encouraged to provide written comments regarding the study and its findings to date. Comment forms are located in the workshop area and at the registration table. Forms may either be completed this evening and left in the Comment Box or mailed to the address below. All comments regarding this portion of the study should be post-marked by **May 11, 2007**. Please mail your comments on the Part 150 Study to:

Rob Adams
Part 150 Project Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, Ohio 45242
Phone (513) 530-1201

Comments may also be e-mailed to Mr. Adams at radams@landrum-brown.com or sent by fax at (513) 530-1278. All of the comments received at the public workshops will be reviewed by the airport and the consultant team for consideration in the study process as appropriate, and included in the final study document.

COMMENT FORM

PUBLIC WORKSHOP

FEDERAL AVIATION ADMINSTRATION
PORT COLUMBUS INTERNATIONAL AIRPORT
ENVIRONMENTAL IMPACT STATEMENT
APRIL 24, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop for the Federal Aviation Administration Environmental Impact Statement (EIS) for Port Columbus International Airport. Public comments are an integral part of the EIS process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this EIS. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below. Comments may also be submitted by fax at (734) 229-2950 or via e-mail to CMHEIS@faa.gov.

OBVIOUSLY THE RUNWAY IMPROVEMENT WILL BENEFIT OUR CITY AND COUNTY. OUR CONCERNS ARE WITH THE INCREASED NOISE LEVELS THIS PROJECT WILL CAUSE. CURRENTLY WE ARE COMFORTABLE INSIDE OUR HOME. HOWEVER, WHEN WE USE OUR PATIO, IT IS IMPOSSIBLE TO HEAR ANYTHING WHEN AN AIRPLANE FLIES OVER. HOW WILL WE REMEDY THIS PROBEM.

Submit comments to:

Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 S. Wayne Road, Suite 107
Romulus, MI 48174

FROM (Please Print)
Name: JAMES W. CORBITT
Address: 2174 - ORIOLE PLACE
COLUMBUS, OH 43219

COMMENT FORM

PUBLIC WORKSHOP

FEDERAL AVIATION ADMINSTRATION
PORT COLUMBUS INTERNATIONAL AIRPORT
ENVIRONMENTAL IMPACT STATEMENT
APRIL 24, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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We need to continue to monetor the whole Buttary Hills Area. All this area should be sound ~~proofed~~proofed. We all hear the same noise and it is loud, loud, loud.

Submit comments to:

Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 S. Wayne Road, Suite 107
Romulus, MI 48174

FROM (Please Print)
Name: mrs. S. Hooper
Address: 2517 Bethesda Ave
Col's. O. 43219

COMMENT FORM

PUBLIC WORKSHOP

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
APRIL 24, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below, **May 11, 2007**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **May 11, 2007**.

My Comments are attached to this form – Please See Attachments Comments From Public Workshop Pages (1-9)

Submit comments postmarked by May 11, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)
Name: Madelaine Gentry
Address: 272 Sherborne DR Columbus, Ohio 43219

272 Sherborne Drive
Columbus, Ohio 43219
April 25, 26, 27, 28, 29, 2007, May 1,2,3,4, 2007

Marion C. Blakley
Administrator, FAA
800 Independence Avenue, S. W.
Washington, DC 20591

Upon hearing the morning of April 24, 2007, of the meeting for the FAR Part 150 Noise Compatibility Study for Port Columbus International Airport (PCIA), Oakland Park Elementary at Brentnell School, Columbus, Ohio, I took this opportunity to attend. Herein, I also have taken the opportunity to respond with my concerns attaching as (attachments pages 1-9) to the Part 150 Comment Form 4-24-07.

I am a resident of the Eastgate community and over the years Eastgate has not been included in the Noise Environmental Compatibility impact studies according to conceived 65 decibels guidelines. However, as I have called many times over the many years to report incidents of horrendous noise from (PCIA) in terms of (revving of planes, take off, landing and over-flying of planes), planes both commercial, private and recreational, rebound , reverberations and dispersed jet noise, the flying of aircraft as mentioned above awaken and are disruptive to sleeping hours of the morning periods, as examples, 3:00 a.m.; 3:10 a.m.; 3:45 a.m.; 4:00 a.m.; 4:30 a.m.; 4:40 a.m.; 5:00 a.m.; 5:15 a.m.; 5:30 a.m.; 5:57 a.m.; 6:15 a.m.; continually, at that point. Nighttime I can count on planes flying out at crucial periods of retiring for the evening e.g. periods between 10:50 p.m. and 11:45 p.m. It is also is very apparent that the flight path for outgoing and incoming planes of the (PCIA) have also been altered over the years. In a call that I made to the Port Columbus airport Noise Hotline I reported and asked why would a commercial plane fly all the way over to Harley Field (a local school football and track field situated with the Eastgate community) then make a HUGE DEEP turn and go northwest? Received no response.

Page 1 – Comments from Public Workshop
From: Madelaine Gentry TO: Ms. Marion Blakley
(Page 1 or 9 Attachments to Part 150 Comment Form – 4-24-07)
RE: Part 150 Noise Compatibility Study by Columbus Regional Airport Authority
"Proposed improvements (replacement/relocation of the airport's south runway and the development of a new passenger terminal to supplement the existing passenger terminal at Port Columbus International Airport" and associative projects listed under Projects Being Considered in the EIS as indicated on FAR Part 150 Noise Compatibility Study Public information (April 24/25/02007 Handouts)
Date: April 25, 26, 27, 28, 29, 30, May 1, 2, 3, 4, 2007

I understand the economical implications and aspects of the proposed and projected as well as the destruction and construction with regarding to "Projects Being Considered in the EIS" as indicated in your public workshops brochure ...development of a replacement runway, additional taxiways, terminal development, navigational aids, aviation-related development (questionable without specific indicated), roadway relocation an construction, parking improvements, property acquisitions relocation of residences, businesses as necessary, development of air traffic operational procedures for the replacement runway and this proposed noise abatement Part 150 Noise Compatibility Study.

I do not understand WHY Eastgate and adjoining communities to Port Columbus International Airport are not inclusive of noise abatement studies and WHY the study stops south of Fifth Avenue and Nelson Road, based on predetermined 65 decibels that seemingly does not account for pressure waves created by commercial and private plane noise activity at (PCIA).

Common sense tells me that any changes conducted at (PCIA) will have an affect and effect on the community of Eastgate, with particular attention to the development of a replacement runway, "10.113 feet long, located 702 feet south of the existing Runway 10R/28L" moving the noise pollution closer to Fifth Avenue. Cascading noise pollution (since noise/sound travels as is clearly recognizable in a simple situation e.g. lighting and thunder- noise/sound travels; even, the very basic and purest of geophysics constituents – noise/sound travels; that is why sonar is a useful tool under water because of its ability to detect motion of sound. Why? Just like the noise pollution from (PCIA)/ the noise travels out side of it boundaries and perimeter). Further, noise pollution levels exert in abundant from the Port Columbus International Airport. Why would it seem less significant for Eastgate not to be inclusive of noise compatibility studies with the impact going higher and higher with levels of noise pollution come from Port Columbus International Airport and a wide range of other variables that are in place.?

With the proposed replacement runway, "10.113 feet long, located 702 feet south of the existing Runway 10R/28L" moving the noise pollution closer to Fifth Avenue and to my Eastgate community the air noise pollution threshold and corridor that now exists to my home in the Eastgate will increase significantly. "Runway Preferences – Designate Runway 10L/28R as the preferential runway all the time." – (Measure NA-T); "Designate Runway 10R/28L as the preferential runway all the time." (Measure NA-U) How will this truly impact the quality of reduction in air plane noise pollution in my Eastgate community? Similarly, "Flight Track Locations" – All southbound traffic departing Runway 28L turn left and follow the I-670/70 corridor. (Measure NA-C). "All southbound traffic departing Runway 10R turn right and follow the I-270 corridor." (Measure NA-J). How will this truly impact the quality of reduction in airplane noise pollution in my Eastgate community? With the amount of disturbance already exhuming from airplane noise pollution to the Eastgate community how will this be curtailed? In your proposal under "Nighttime Noise" Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L? (Measure NA-D). How will aircraft noise pollution be affirmatively reduced? under "Nighttime Noise" Designate Runway 10L28/R as the preferential nighttime (10:00 to 8:00 a.m.) runway for all traffic? (Measure NA-S). Any movement south will definitely increase nighttime noise to my home and to my Eastgate community.

What accommodations will be in place for the increase in air traffic and automobile use? at the (PCIA)? What accommodation will be in place for an increase in general traffic on Fifth Avenue? What accommodations will be in place for the continued decrease in air quality? What accommodations will be in place for the increase to the center city with regards to a significant increase in heat levels and smog levels from air traffic and automobile use coming and going from the (PCIA)? What accommodations will be in place to make sure sufficient levels of air noise pollution and air quality pollution has the least amount of impact on the Eastgate communities and those communities nearer the airport? What accommodations will be in place for the continued destruction of nature barrier such as trees that we have a positive affect in reducing the increase air traffic noise and air pollution? Since it is not indicated in the Environmental Impact Statement, how many homes in the areas within proximity to these proposed projects is the (PCIA) projecting that will be demolished?

As the old saying goes, this time it will be the runway to the south, a new terminal, new access ways, deterioration of Seltzer Road, etc. After 2012 what else will it be? Where will it end as more peoples avail the air travel industry? Undoubtedly, expansion will not seize in 2012. Why should taxpayer's dollars be spent on another air terminal when the present one was ill-constructed? If a muffler is required on cars, WHY is there not muffler technology and federal guided legislation in place for aircraft mufflers that would reduce with great proportions the noise emanating from commercial and private aircraft?

Once thing for sure that is very apparent to me is that those who do not live in proximity nor the region to the Port Columbus Authority Airport do not have to suffer the consequence of factors of noise pollution, air quality pollution, changes in heat index level from aircraft and automobile exhaust, and the reduction and deterioration of nature environmental buffers.

I understand progress. I do not believe that this day in age that progress should continue to erode an already suffering environment and continued global warming attributed to misuse of the environment. But, take every measure necessary to preserve the human condition and environmental impact. I believe federal funding should prevail that can accommodate strategically placed noise abatement walls, not only (PCIA), but within communities that would be technologically advanced to allow the noise to bound back at its origination point, not outward, require by Federal legislation that air craft commercial and private MUST meet stringent standards to meet reduction in air noise pollution and air quality pollution. I am aware that many factors affect noise pollution stemming from aircraft…it can be a sunny day, humid day, rainy day… low clouds, high clouds, wind velocity and overall atmospheric conditions. Require through Federal legislation that (PCIN) as well as all airport facilities install air scrubbers and sound absorbers throughout their grounds and facilities.

I do not believe that making something bigger makes it better at the expense of the quality of life for humans. In the last few years there has been significantly development and redevelopment of land resources on Cassady Avenue, Airport Drive and Demonye Drive area. Much of this development has destroyed significant amount of trees and forestry that serve as nature air cleaners, noise barriers and animal protective and feeding environs.

If the areas that are considered to be in the flight paths of ascending and descending aircraft and high noise pollution levels e.g., Brittney Hills, Sunbury Road, Brentnell, Mock Road, and 17th Avenue area have been fitted with acoustic windows, doors, and insulation why is it that planes fly over the Eastgate area? Why should Eastgate not be given the same consideration due to the factors of noise pollution and environmental distresses coming to and from (PCIA) commercial, private and recreational aircraft?

Whether on a grand scale or minimum scale noise pollution and air quality pollution is out of control. As demonstrated by a recent article in, *The Columbus Dispatch*, (Sunday, April 29, 2007) newspaper, "Fresh-cut grass smells of smog", presents us with an opportunity to see that our air quality is being polluted on not only from a large scale but also on a small scale. Imagine, as noted within this article sourced from the Lake Michigan Air Directors Consortium, we are thrust with contaminates of Hydrocarbons, Nitrogen oxides, Carbon monoxide, Fine particles, Sulfur dioxide, from small equipment such as lawn mower. What does this say about our Columbus atmosphere on a large scale from the noise pollution and environmental air quality pollution stemming from and changing the ozone layers from (PCIA). More importantly, locally at (PCIA). Can the area and extended communities around (PCIA) continue to be conducive for human living and retention of viable economic status in the continuing surge in amplified noise and the air quality index polluting the environment?

Is there new research, development and/or implementation of materials for runway surfaces that can be put in place so that the aircraft noise bounces back to the ground?

Page 6 – Comments from Public Workshop
FROM: Madelaine Gentry TO: Atten: Ms. Marion Blakley
(Page 6 of 9 Attachment to Part 150 Comment Form – 4-24-07)
RE: Part 150 Noise Compatibility Study by Columbus Regional Airport Authority
"Proposed improvements (replacement/relocation of the airport's south runway and the development of a new passenger terminal to supplement the existing passenger terminal at Port Columbus International Airport" and associative projects listed under Projects Being Considered in the EIS as indicated on FAR Part 150 Noise Compatibility Study Public information (April 24/25/02007 Handouts)
Date: April 25, 26, 27, 28, 29, 30, May 1, 2, 3, 4, 2007

Is there hope? According to an article published by the Massachusetts Institute of Technology entitled, *"Aircraft Noise Pollution"* (web.mit.edu/newsofice/1995/noisepolution.html) it appears there may be hope. The article provided information in regards to work being conducted by Dr. IanWaitz, "an assistant professor and director of the aero-Environmental Research Laboratory. There is/are opportunities through technology advances to reduce noise and air quality pollution on aircraft. There is an opportunity to reduce "aircraft engine noise by 6EPNdB (effective perceived noise decibels)." Are any of these technological advances research studies or others being still funded by NASA? Funded, developed and instituted by other private sponsors or legislators? This article also addresses and demonstrates the reality impact that "noise from planes flying over residential areas impairs people's ability to work, learn in school and sleep, and consequently also results in lowered property values in affected areas"....all of which are also real to my concerns regarding the (PCIA) aircraft. Has further research and development been undertaken in this area?

The time span to do detail review and research of the Public Workshop information Environmental Impact Statement, and the FAR 150 Noise Compatibility Study summary in order to meet the May 11, 2007 deadline for submission of feedback, certainly does not provide the time element needed to achieve full interpretation of the factors and variable surrounding the FAR Part 150 Noise Compatibility Study nor the Environmental Impact Statement of proposed "Projects Being Considered in the EIS". Will any, all, none, of the "Projects Being Considered in the EIS" occur? The Environmental Impact Statement only provides the novice with a gleam of speculation.

As I indicated to FAA personnel on April 24, 2007, who were also very vague with their responses to me concerning my questions, I sincerely hope that Eastgate will be given full consideration very soon for inclusion as a noise monitoring location as those depicted on your General Study Area – Port Columbus International Airport Part 150 Study Legend – denoted Noise Monitoring Locations. As part of this inclusion, I offer at this time a location on my property in my backyard to have the noise monitoring device installed.

When will assistance come to alleviate the noise pollution from commercial, private and recreational aircraft flying over my home and in my Eastgate community?

RECEIVED
MAY 17 2007
FAA, DETROIT ADO

COMMENT FORM

PUBLIC WORKSHOP

FEDERAL AVIATION ADMINSTRATION
PORT COLUMBUS INTERNATIONAL AIRPORT
ENVIRONMENTAL IMPACT STATEMENT
APRIL 24, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop for the Federal Aviation Administration Environmental Impact Statement (EIS) for Port Columbus International Airport. Public comments are an integral part of the EIS process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this EIS. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below. Comments may also be submitted by fax at (734) 229-2950 or via e-mail to CMHEIS@faa.gov.

I could not get this on
here But the plans are
causing me to have Bad
ear aches and my Ears to drop.
I am Losing hearing in my
right
Left Ear.

Submit comments to:

Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 S. Wayne Road, Suite 107
Romulus, MI 48174

FROM (Please Print)
Name: Josephine Ferri
Address: 3130 Lisa Dr
Col. OH. 43219

COMMENT FORM

PUBLIC WORKSHOP

FEDERAL AVIATION ADMINSTRATION
PORT COLUMBUS INTERNATIONAL AIRPORT
ENVIRONMENTAL IMPACT STATEMENT
APRIL 24, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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We are trying to keep up our Neighborhood. I feel the environmetal Committee Could help us continue by Supporting our efforts. Such as helping us with our Drive ways ETC. Some people is Sharing Things you have done for Some but not others. There the Times you Stop 3 houses and then the next person does not receive help. That is not fair - please reconsider. think about your own family. Would you please at least read these papers

Submit comments to:

Katherine S. Jones
Federal Aviation Administration
Detroit Airports District Office
11677 S. Wayne Road, Suite 107
Romulus, MI 48174

FROM (Please Print)

Name: Elnora Upshaw

Address: 1647 DePorres Dr
Columbus Ohio 43219
253 1482

We have been living in our house, which is off of McNaughten Road, about three or four miles east of the airport, for about nineteen years. We have experienced the horrible rumbling noise over our house, especially in the morning when the planes take off, starting as early as 6:30 a.m. and as they take off, minutes apart. Our bedroom and bathroom actually shake.

We have made many phone calls to the airport noise control all through the years. They listen to our complaint, but nothing has been resolved. We were advised to call the Noise Hotline number, giving them the exact time of the noises and the "shaking" of the house. We have spoken to Dave Clawson and others.

Enclosed is a copy of a letter we received from Mayor Rinehart's office back in March of 1989, shortly after we moved into our house and after I called to complain of the noise problem. Also enclosed are copies of articles that I cut out from the Columbus Dispatch years ago relating to the plane noise overhead. Our house is around the corner where Reynoldsburg begins.

What happened to the equipment the airlines were supposed to equip the planes with to muffle the sounds of takeoff? Or sound-proof the homes? We watch the planes come over our area during the day and some are much too low considering the distance we are from the airport. They should be much higher. When it is very quiet, I can hear the powerful engines "rev" up to take off! How are you able to control the ~~pitch~~ pilots to conform to the rules set forth by the airport and the powers that require them to conform?

Encl: (2)

Marcia + Daniel M. Siegel
455 Plankton Place
Columbus, OH 43213-3468

City of Columbus
Mayor Dana G. Rinehart

Mayor's Action Center

109 North Front Street
Columbus, Ohio 43215-4184
(614) 821-BUCK

MAY 01, 1989

MAYOR'S ACTION MEMORANDUM

TO: MR DANIEL SIEGEL
455 PLANKTON PL
WHITEHALL OH 43213

FROM: DANA G. RINEHART
MAYOR

RE: AIRPORT/FLIGHT

THANK YOU FOR CONTACTING US. I HOPE THE FOLLOWING INFORMATION IS HELPFUL REGARDING YOUR INQUIRY OF MARCH 27, 1989.

THE NEIGHBORHOOD RELATIONS COMMITTEE HAS REPRESENTATIVES FROM YOUR AREA WHO WORK WITH AIRPORT STAFF TO ACHIEVE THE HIGHEST LEVEL OF COMPATABILITY BETWEEN THE AIR TRANSPORTATION ENVIRONMENT AND SURROUNDING COMMUNITIES, BOTH OF WHICH ARE VITAL ASSETS TO THE COLUMBUS METROPOLITAN AREA. FOR ADDITIONAL INFORMATION ON THE NEIGHBORHOOD RELATIONS COMMITTEE CONTACT MR. LAWRENCE KRAUTER AT 239-4043.

IF YOU NEED FURTHER INFORMATION OR HAVE ADDITIONAL COMMENTS OR SUGGESTIONS, PLEASE GIVE US A CALL.

PORT COLUMBUS

89048-0015-002

FAA Bob Frink
236-8547

Noise Abatement Officers Hotline
Bernie Maleski airport Supt. staff
239-4065

COMMENT FORM

PUBLIC WORKSHOP

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
APRIL 25, 2007 – WHITEHALL COMMUNITY PARK ACTIVITIES CENTER

Welcome to the Public Workshop for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **May 11, 2007**.

Kindly respond We have been at this a long time.

Submit comments postmarked by ***May 11, 2007*** *to:*

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: MARCIA & DANIEL SIEGEL

Address: 465 PLANKTON PLACE
COLUMBUS, OHIO 43213-3468

FAA may reduce plane traffic over Reynoldsburg, Gahanna

By Scott Powers
Dispatch Staff Reporter

Fewer airplanes may be flying over Reynoldsburg and Gahanna.

Port Columbus officials plan to ask Federal Aviation Administration air traffic controllers to divert as much traffic as practical away from those two suburbs.

James Loomis, of the Columbus Airport and Aviation Commission, told the commission that a study surprised airport officials who had believed that few pilots were swinging over Gahanna and Reynoldsburg.

Under clear skies, pilots are not required to avoid flying over densely populated areas while entering or leaving Port Columbus, provided they are at least 2,600 feet above the ground.

He and the airport administration, with the help of the FAA, conducted a study after the commission's neighbor relations committee received complaints from Reynoldsburg residents.

The study showed 15 to 35 percent of airplanes veered over Reynoldsburg while making approaches or after taking off. Loomis said the same thing is happening over Gahanna.

Loomis, who chairs the neighbor committee, said he and Airports Administrator Larry Hedrick will ask FAA air traffic controllers to request that pilots stay on a straight line with the runway for as long as practical to avoid flying over the two suburbs.

He said Port Columbus officials asked the FAA to limit flights over Reynoldsburg and Gahanna once before, but the study showed many flights are turning too soon and crossing over the suburbs.

City airports commission sets workshop on soundproofing

A soundproofing workshop for residents and businesses bothered by airport noise will be held Thursday by the Columbus Airports and Aviation Commission.

The workshop is scheduled from 7 p.m. to 9 p.m. at St. Stephens Community House, 1500 E. 17th Ave.

James Loomis, chairman of the aviation commission's neighbor relations committee, said the workshop will feature home improvement contractors and experts in airport noise discussing steps that can be taken by homeowners.

"We hope to attract residents who are already doing some improvements and show them how they can mollify some of the noise while they're doing it," he said.

Bob Brown, president of the California-based acoustic consulting company Brown-Buntin Associates, will be among the workshop participants.

Loomis and Bernard Meleski, administrative officer for planning and development at Port Columbus, will be on hand to discuss the airport's plans for future soundproofing programs.

Planning Advisory Committee Meeting #4
April 24, 2007

Letter of Invite
Registration
Presentation
Summary Meeting Notes

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

U.S. Department of Transportation
Federal Aviation Administration

March 23, 2007

Name
Address
Address
Address

RE: Port Columbus International Airport
Part 150 Noise Compatibility Study Update and Environmental Impact Statement
Planning Advisory Committee and Study Advisory Committee

Dear Name,

Enclosed are meeting minutes for the March 13, 2007 Planning Advisory Committee (PAC) for the Port Columbus International Airport Part 150 Noise Compatibility Study Update (Part 150). For those who were unable to attend, a copy of the handout provided at the meeting is also enclosed

The next meeting of the PAC will be held on the same day as the Study Advisory Committee (SAC) for the Environmental Impact Statement that is being concurrently conducted by the Federal Aviation Administration. The PAC and SAC meetings will be held on:

Tuesday, April 24, 2007
Concourse Hotel and Conference Center
Meeting Rooms: Logan A&B
4300 International Gateway
Columbus, OH 43219

Please note the meeting will be held at the Concourse Hotel, which is located immediately adjacent to Port Columbus International Airport. Free parking is provided adjacent to the hotel. The SAC will meet from **10:00 a.m. to 11:00 a.m.** There will be a short break and the PAC will meet from **11:00 a.m. to 1:00 p.m.** The meetings will end promptly at 1:00 p.m. Lunch will not be served but coffee and cookies will be available throughout the morning.

An agenda for the meeting is enclosed with this letter along with a summary of the Purpose and Need for the EIS. In addition, a summary of the alternatives will be mailed to you approximately two weeks prior to the SAC meeting. Please review both of these items for questions or comments that can be discussed at the SAC meeting.

Also enclosed is a flyer with details of the Public Information Workshops that will be held on April 24th and 25th. Please use the flyer to let others who may be interested in the proposed airport development know about the Public Information Workshops. If you would like an electronic version of the flyer, please contact Melanie DePoy at the e-mail address below.

As always, we appreciate your interest in Port Columbus International Airport and your participation in these studies. Please let us know if you are able to attend the April 24th meetings by responding to Melanie DePoy of Aerofinity, Inc. by Monday, April 16, 2007. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Katherine S. Jones

Katherine S. Jones
Community Planner
Federal Aviation Administration

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY UPDATE

Columbus Regional Airport Authority
PLANNING ADVISORY COMMITTEE

April 24, 2007
11:00 a.m. to 1:00 p.m.
Concourse Hotel and Conference Center

AGENDA

WELCOME

I. Where are we in the Part 150 Process?

II. How the Part 150 fits into the EIS Process

III. Part 150 Schedule

IV. Review Existing and Future Conditions Contours

V. Noise Abatement, Land Use, and Program Implementation Alternatives

VI. Comments on Alternatives

VII. Next Steps

3/23/07 PAC/SAC Distribution List

Mr. Thomas J. Browne
Managing Director of Airports
Air Transport Association of America
1301 Pennsylvania Avenue, NW – Suite 1100
Washington, DC 20004-1707

AOPA
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Mr. Ron Moodespaugh
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Columbus, OH 43219

Mr. Tim Stehle, Director of Flight Operations
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4387 International Gateway
Columbus, OH 43219

Bryan Levandusky, Manager
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4600 International Gateway
Columbus, OH 43219

Mr. Brian Kennedy, Manager
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Mr. Bill Cumbow
Airline Pilots Association
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Mr. Ken Waite, Facility Manager
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4300 East Fifth Avenue
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Mr. Mark Dooley, Manager
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Ms. Patti Froehlich, Manager
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Sandy Dicocco, Manager
US Airways/US Airways/America West
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Mr. Felix Scuilli, Manager
Delta/Delta Connection
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4600 International Gateway
Columbus, OH 43219

Mr. James Bryant, Aviation Administrator
Ohio Office of Aviation
2829 W. Dublin-Granville Road
Columbus, OH 43219

Mr. Mark Kelby
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Mr. Columbus Russell, President
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	Whitlock, Scott	Worthington Mayor to Non Scott Airport Advisory Bd	614-284-0629
		WOOSC	

Bethany S. Miller Gahanna

Port Columbus International Airport

FAR Part 150 Noise Compatibility Study

Planning Advisory Committee Meeting 4

April 24, 2007

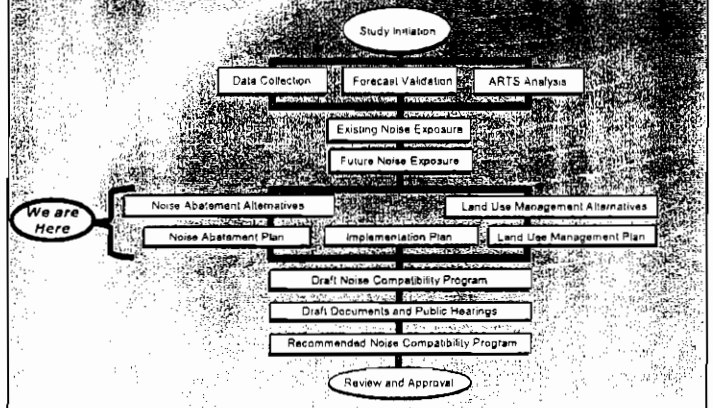
Planning Advisory Committee

- Welcome and Introductions
- Purpose of Today's PAC Meeting
  - Present our preliminary recommendations on the noise abatement alternatives
  - Present information on the range of land use management alternatives

Today's Agenda

- Where are we in the Part 150 Process?
- Part 150 Schedule
- Review of Existing and Future Noise Exposure Maps
- Preliminary Recommendations of Noise Abatement Measures
- Review Current Land Use Mitigation Measures
- Review Current Implementation Measures
- Next Steps

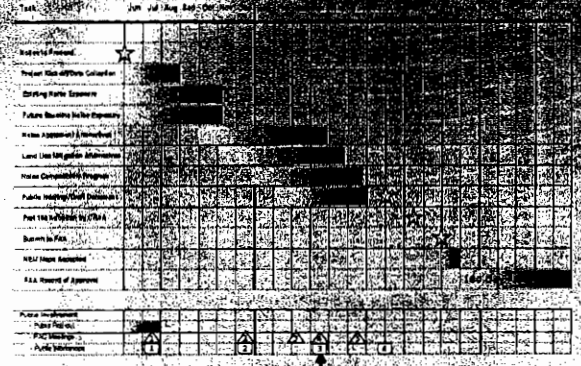
Where are we in the Part 150 Process?



Where we are in the Part 150 Process?

- Columbus Regional Airport Authority (CRAA) is the Sponsor of the Part 150 Study
- Sponsor's Proposed Project from the Environmental Impact Statement (EIS) will be used as the Future Baseline in the Part 150 Study
- If the EIS process concludes that another alternative is more viable, the Part 150 Study will evaluate that alternative

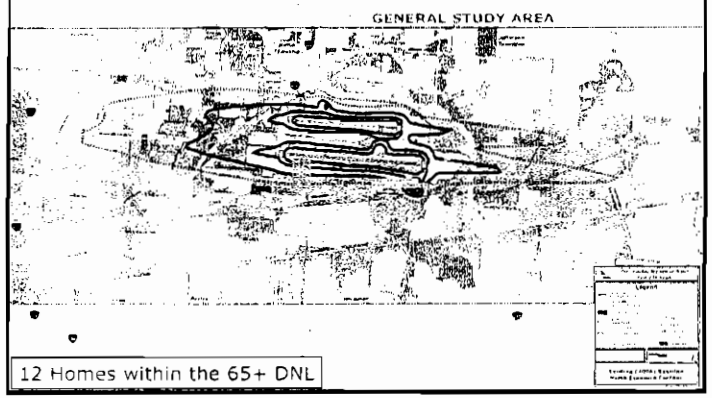
Part 150 Schedule



Planning Advisory Committee

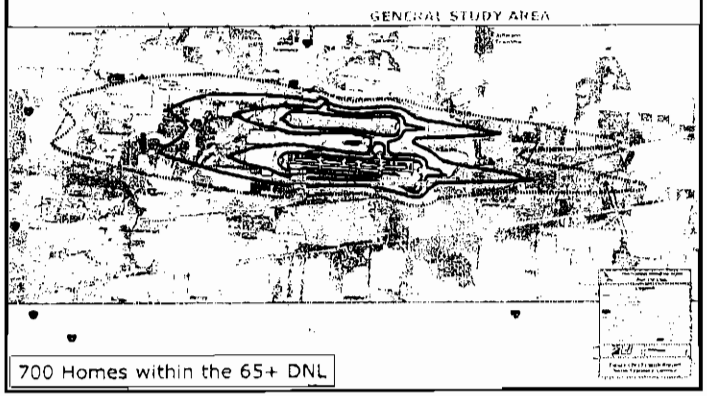
- Review of Existing and Future Baseline Noise Exposure Maps

Existing (2006) Noise Exposure Map

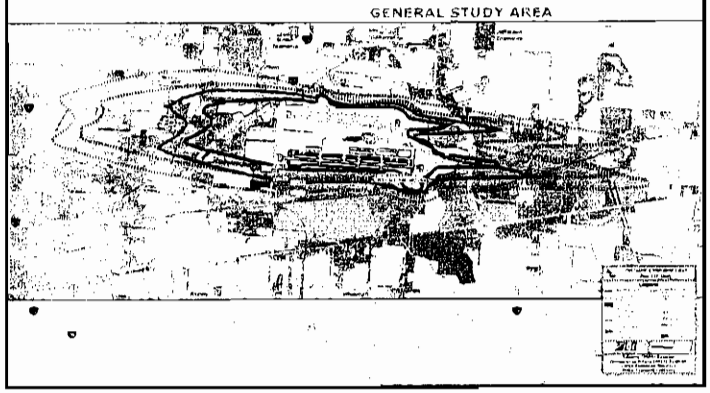


12 Homes within the 65+ DNL

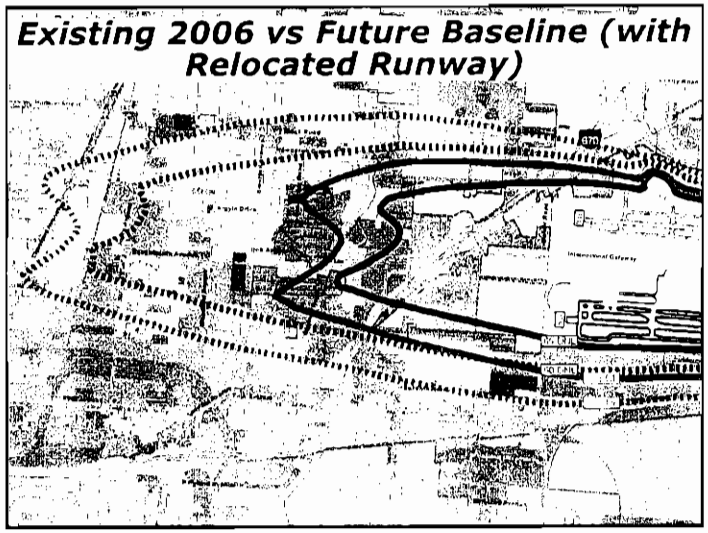
Future Baseline (with Relocated Runway) Noise Exposure Contour



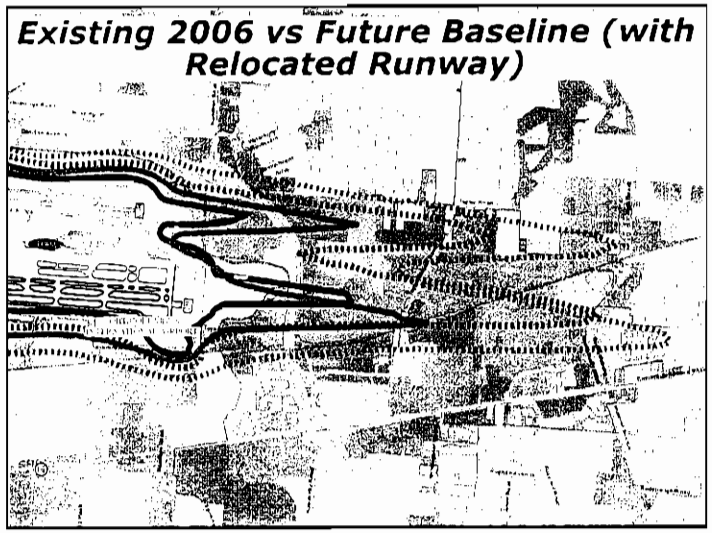
Existing 2006 vs Future Baseline (with Relocated Runway)



Existing 2006 vs Future Baseline (with Relocated Runway)



Existing 2006 vs Future Baseline (with Relocated Runway)



Future Baseline (With Relocated Runway) Noise Exposure Contours

- Summary of Impacts
  - Increased impacts in 2012 is due primarily to increases in operating levels
  - Relocated runway also is a factor

SUMMARY OF IMPACTS					
Housing Units	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	Total 65+
2006 Existing Baseline	2,636	12	0	0	12
2012 Future Baseline (with Relocated Runway)	6,929	700	0	0	700
Population					
2006 Existing Baseline	6,911	29	0	0	29
2012 Future Baseline (with Relocated Runway)	13,799	1,729	0	0	1,729

Planning Advisory Committee

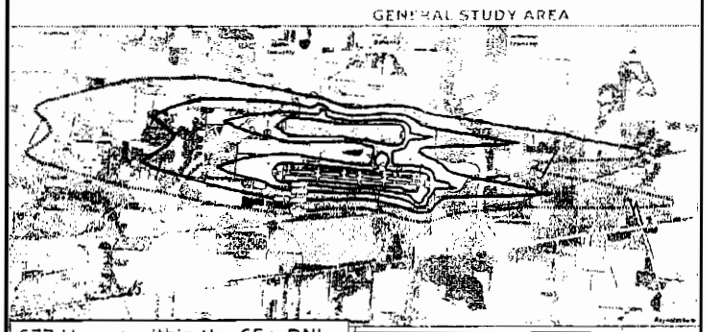
- Evaluation Criteria for Preliminary Noise Abatement Alternatives
  - Safety
  - Feasibility
  - Operational Impacts
    - Increase in delay
    - Conflicts with other airport operations
  - Noise Impacts as compared to 2012 Baseline
    - Reductions in the 65+ DNL (most important)
    - Reductions in the 60-65 DNL (important)
    - Sensitivity to shifting noise from one area to another
      - Balancing increased impacts against reduced impacts
      - An alternative with a net reduction may not be preferred due to large increases in new impacts

Preliminary Noise Abatement Alternatives

- Need for Divergent Turns
  - Description of problem/issue
    - Divergent turn [illegible] to at least 15 degrees from the initial departure path [illegible] aircraft to depart [illegible]
    - FAA ATKL has [illegible] additional departure delays [illegible] to increase capacity and reduce delays during peak periods
    - Current procedure requires aircraft to fly runway heading until reaching 5 miles or 6,500 feet AGL
  - List of potential solutions (alternatives)
    - NA-A: 15-degree divergent turn – Runway 28L
    - NA-B: 20-degree divergent turn – Runway 28L
    - NA-E: 15-degree divergent turn – Runway 28R
    - NA-G: 15-degree divergent turn – Runway 10R
    - NA-H: 40-degree divergent turn – Runway 10R
    - NA-K: 15-degree divergent turn – Runway 10L

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.



677 Homes within the 65+ DNL
Increase of 4 homes within 65+
Decrease of 27 homes within 65+

2012 Future Baseline (with Relocated Runway)
Alternative NA-E

Preliminary Noise Abatement Alternatives

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.

Benefits:
- Increases capacity and reduces delay by giving ATCT an additional heading
- Decreases cumulative impacts in the 60-65 DNL by 27 homes
- Decreases overall impacts in the 60-65 DNL by 41 homes

Drawbacks:
- Shifts noise impacts in 60-65 DNL (+96/-137 homes)

Preliminary Noise Abatement Alternatives

NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading.

Preliminary Recommendation:
- Due to the reduction in noise impacts, it is recommended that the alternative be RECOMMENDED for further evaluation
- Recommendation is contingent upon conducting a test period by ATCT
  - During the test period, data will be collected by the ATCT/CRAA to monitor when the turn was used, why the turn was needed, and who used the turn
  - After the test period, data will be analyzed to determine if the turn increased noise impacts/complaints to the surrounding communities

Preliminary Noise Abatement Alternatives

- **Summary of Recommendations for Divergent Turn Alternatives**
  - **Recommended**
    - NA-E: 15-degree divergent turn – Runway 28R
  - **Not Recommended**
    - NA-F: 20-degree divergent turn – Runway 28R
    - NA-G: 15-degree divergent turn – Runway 10R
    - NA-H: 40-degree divergent turn – Runway 10R
    - NA-K: 15-degree divergent turn – Runway 10L

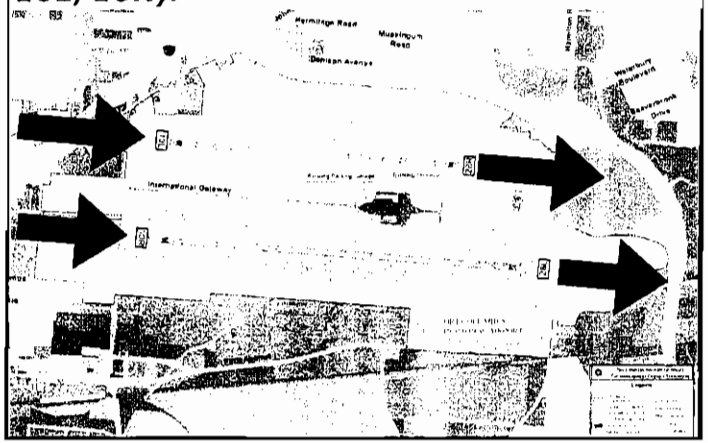
Preliminary Noise Abatement Alternatives

- **Runway preferences**
  - **Description of problem/issue**
    - Winds dictate the direction the airport operates (east/west)
    - Secondary factors are taxiway/gate location and to a lesser degree final destination
    - The intent of the flow/no alternatives is to assign aircraft to use a specific runway and flow that results in the smallest number of impacts
    - In general, the east side of the airport is more compatible than the west side
  - **List of potential solutions (alternatives)**
    - **NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)**
    - NA-T: Runway 10L/28R preferential runway all the time
    - **NA-U: Runway 10R/28L preferential runway all the time**

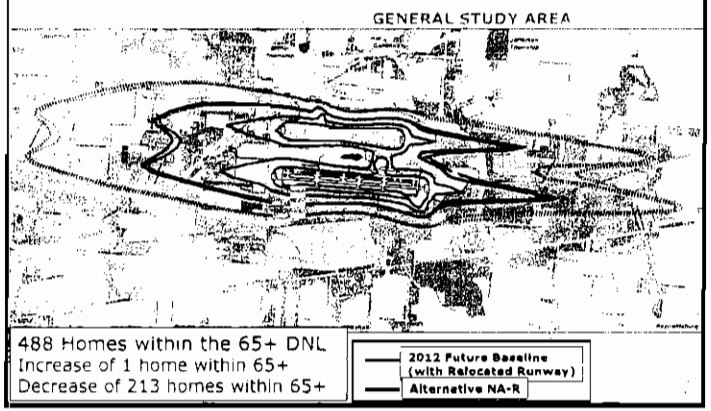
Preliminary Noise Abatement Alternatives

- **NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)**
  - **Description**
    - ATCT [illegible]
    - In east flow [illegible]
    - Airport [illegible]
    - Due to [illegible]
    - Implementation would [illegible]
    - direction (which [illegible]
    - Currently working on items that will help to increase the use of east flow - holdpads, Air Traffic Control Tower visibility, and outreach with the airlines
    - Efforts in the future will include additional outreach with airlines, collection of wind/weather data, continued discussions with ATCT to identify ways to increase the use of east flow

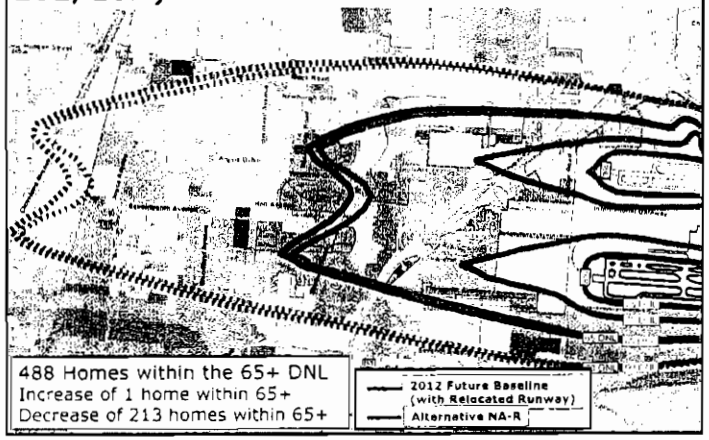
NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R).



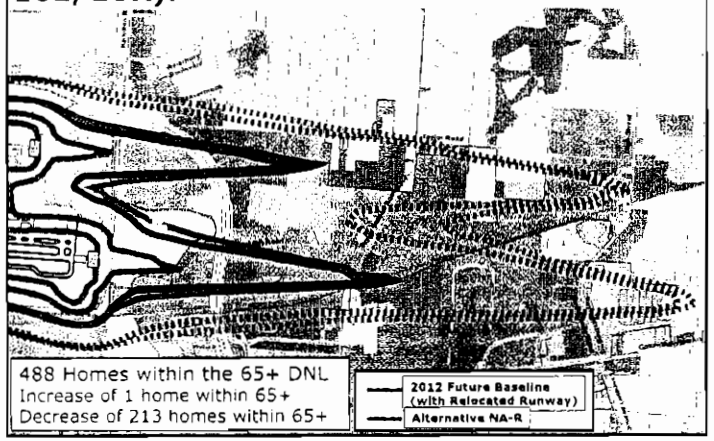
NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R).



NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R).



NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R).



Preliminary Noise Abatement Alternatives

NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)

Benefits:

- Takes [illegible] compatible [illegible] decrease
- Renewed [illegible] to gain 5 percent increase in [illegible] may gain [illegible]
- Reduces the number of homes in the 65+ DNL by 213
- Reduces the number of homes in the 60-65 DNL by [illegible]

Drawback:

- Weather dependent, noise thresholds and other factors (complex)
- Shifts noise impacts in the 60-65 DNL (+594/-713)
  - 213 of the 594 impacts are shifted from 65 to 60 DNL (decreased noise)

Preliminary Recommendations:

- Due to the decrease in the noise impacts in the 65+ DNL with only 1 home increase, the alternative is RECOMMENDED for further evaluation

Preliminary Noise Abatement Alternatives

- **Summary of Recommendations for Runway Use Alternatives**
  - **Recommended**
    - NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)
  - **Not Recommended**
    - NA-E: Runway 10L/28R preferential runway all the time
    - NA-U: Runway 10R/28L preferential runway all the time

Preliminary Noise Abatement Alternatives

- Flight track location
- Description of problem/issue
  - Departures on [illegible] runway heading until reaching [illegible] miles from the airport or 6500 feet MSL
  - Need for the following alternatives is to determine if more compatible routes exist
- List of potential solutions (alternatives)
  - **NA-C: Southbound departures follow 670/70 corridor – Runway 28L**
  - NA-F: Northbound departures turn right to a 360 heading – Runway 28R
  - NA-J: Southbound departures follow 270 corridor– Runway 10R

Preliminary Noise Abatement Alternatives

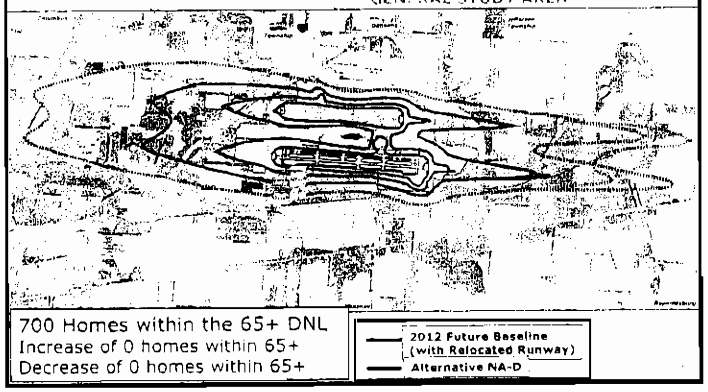
- Summary of Recommendations for Flight Track Location Alternatives
  - Recommended
    - None
  - Not Recommended
    - NA-C: Southbound departures follow 670/70 corridor – Runway 28L
    - NA-F: Northbound departures turn right to a 360 heading – Runway 28R
    - NA-J: Southbound departures follow 270 corridor– Runway 10R

Preliminary Noise Abatement Alternatives

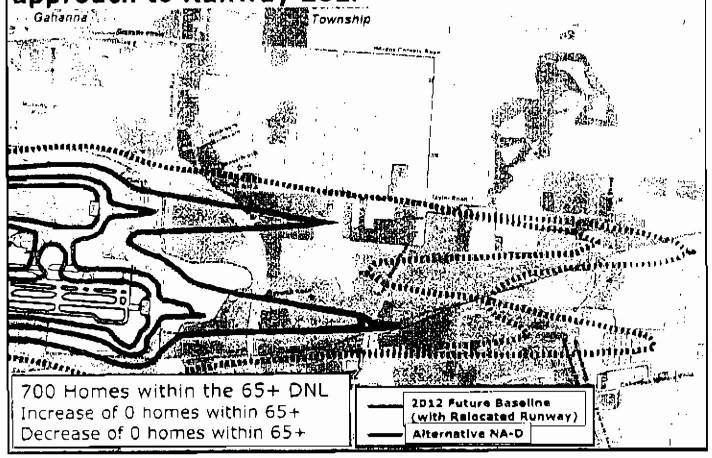
- Nighttime No[illegible]
- Description of problem/issue
  - Noise is perceived as disruptive during nighttime hours. The [illegible] alternatives identify measures to reduce nighttime noise.
- List of potential solutions (alternatives)
  - **NA-D: New arrival procedure – Runway 28L**
  - **NA-I: New departure procedure – Runway 10R**
  - NA-L: Modify (NA-4) current tower order to assign jet aircraft to prop departure procedure.
  - NA-M: Modify (NA-4) current tower order to eliminate the flight procedure for prop departures.
  - NA-S: Designate Runway 10L/28R as preferred nighttime runway
  - **NA-V: Focus aircraft to the east of the airport – Arrivals on Runway 28R and departures on Runway 10R**

NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L.

NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L.



NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L.

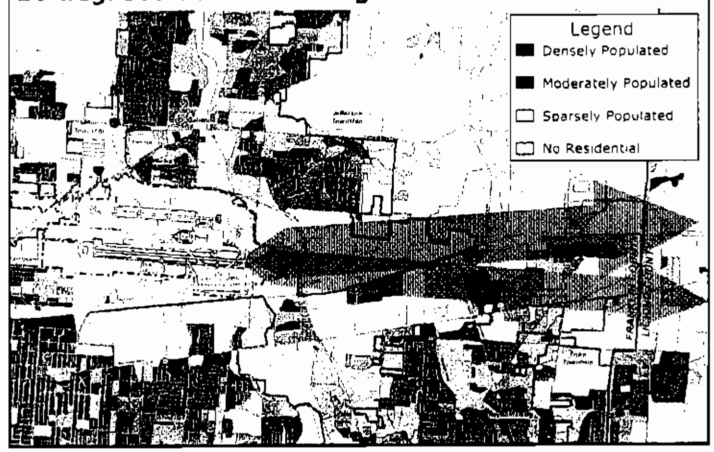


Preliminary Noise Abatement Alternatives

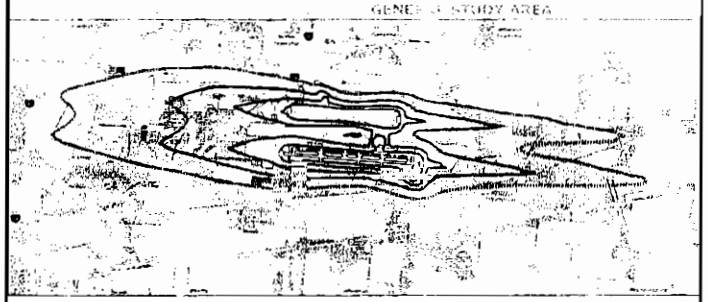
- **NA-D: Arrivals landing during the nighttime (10:00 p.m. to 7:00 a.m.) use visual side step approach to Runway 28L**
- **Benefits:**
  - Decreases noise over populated areas along the runway centerline during nighttime hours
  - Decreases noise impacts between 60 and 65 DNL by 307 homes
- **Drawbacks:**
  - Additional coordination/communication for ATC and pilots
  - New visual arrival procedure would need to be published
  - No change in noise impacts in 65+ DNL
  - Shifts noise impacts in 60-65 DNL (+35/-342)
- **Preliminary Recommendations:**
  - Due to the decrease of noise impacts within the 60 and 65 DNL with little shifting of noise impact, the alternative is RECOMMENDED for further evaluation

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 35

NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.



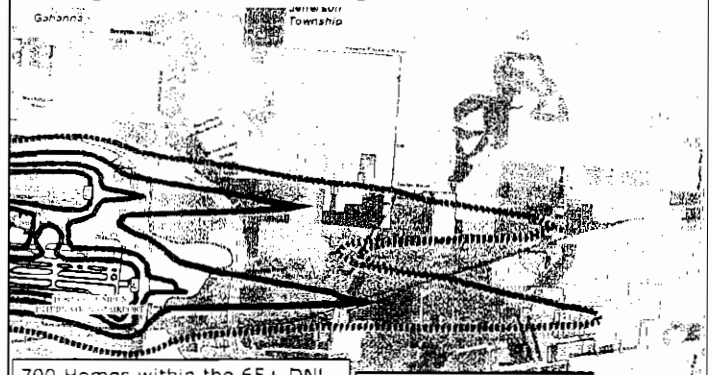
NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.



700 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 0 homes within 65+

2012 Future Baseline (with Relocated Runway)
Alternative NA-I

NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.



700 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 0 homes within 65+

2012 Future Baseline (with Relocated Runway)
Alternative NA-I

Preliminary Noise Abatement Alternatives

NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course.

Benefits:

- Reduces noise all along the Runway 10R centerline
- Decreases noise impacts in 60-65 DNL by 105 homes
- Little shift in noise impacts in 60-65 DNL (+10/-115)

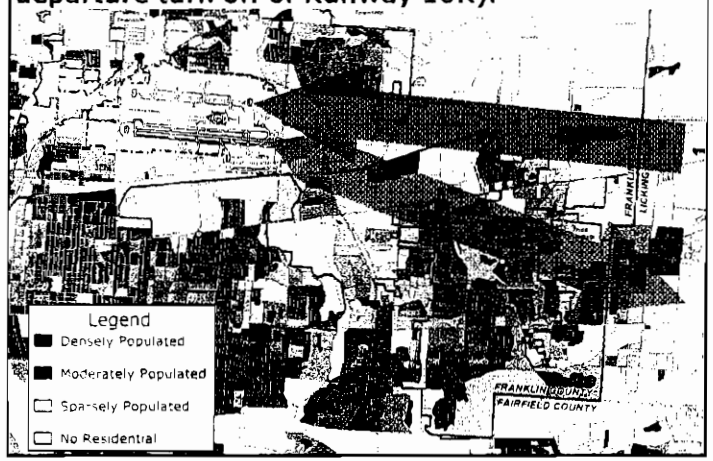
Drawbacks:

- No change in noise impacts in 65+ DNL

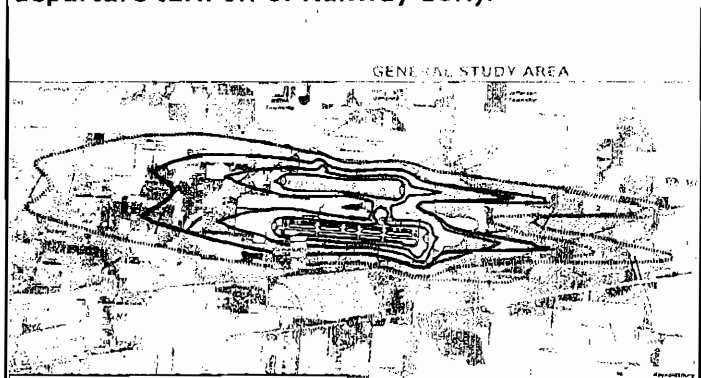
Preliminary Recommendations:

- Due to the decrease of noise impacts within the 60-65 DNL noise contour with little shift in noise impacts, the alternative is RECOMMENDED for further evaluation

NA-V: Implement head to head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R).

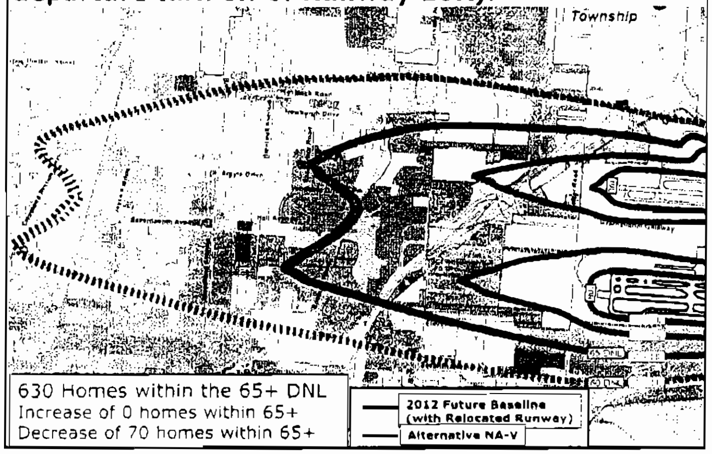


NA-V: Implement head to head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R).



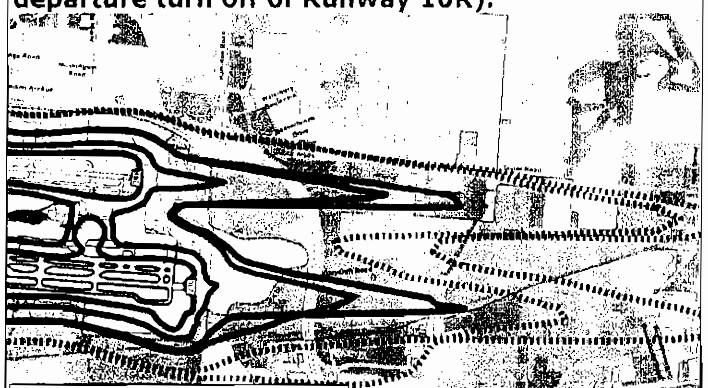
630 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 70 homes within 65+

NA-V: Implement head to head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R).



630 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 70 homes within 65+

NA-V: Implement head to head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R).



630 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 70 homes within 65+

Preliminary Noise Abatement Alternatives

NA-V: Implement [illegible] *winds* at nighttime [illegible] off of Runway 10R)

Benefits:
- Decrease [illegible]
- Noise [illegible] compatible land uses [illegible]
- Decreases noise impacts in 65+ DNL by 70 homes

Drawbacks:
- Would require additional air traffic coordination to ensure safety (may be difficult to implement consistently)
- Shifts noise impacts in 60-65 DNL (+654/-580)

Preliminary Recommendations:
- Due to the decrease of noise impacts within the 65+ DNL noise contour the alternative is RECOMMENDED for further evaluation

Preliminary Noise Abatement Alternatives

- **Summary of Recommendations for Nighttime Alternatives**
  - **Recommended**
    - **NA-D: New departure procedure - Runway 28L**
    - **NA-I: New departure procedure - Runway 10R**
    - **NA-V: Focus all traffic to the east of the airport – Arrivals on Runway 28R and departures on Runway 10R**
  - **Not Recommended**
    - NA-L: Modify (NA-4) current tower order to assign jet aircraft to prop departure procedure.
    - NA-M: Modify (NA-4) current tower order to eliminate the flight procedure for prop departures.
    - NA-S: Designate Runway 10L/28R as preferred nighttime runway

Preliminary Noise Abatement Alternatives

- **Flight Management**
  - **Description of problem/issue**
    - The intent of [illegible] alternatives is to decrease noise impacts by implementing procedures that are enforced [illegible] the cockpit.
  - **List of potential solutions (alternatives)**
    - **NA-N: Create RNAV procedures**
    - **NA-O: Implement CDA procedure**
    - NA-P/Q: Implement Noise Abatement Departure Procedures

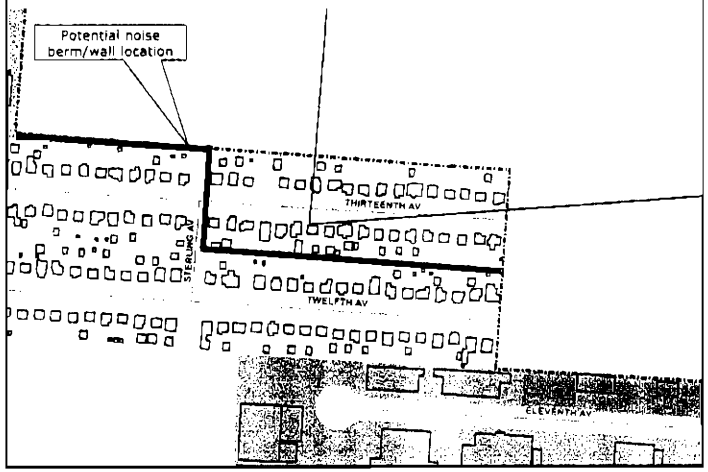
Preliminary Noise Abatement Alternatives

- **Summary of Recommendations for Flight Management Alternatives**
  - **Recommended**
    - **NA-N: Create RNAV procedures**
    - **NA-O: Conduct study of CDA procedures to determine applicability/feasibility at CMH**
  - **Not Recommended**
    - NA-P/Q: Implement Noise Abatement Departure Procedures

Preliminary Noise Abatement Alternatives

- **Ground Noise Policies / Controls**
  - **Description of problem/issue**
    - Night [illegible]
    - Thres[illegible]
    - The [illegible]
    - Evalu[illegible]
    - loca[illegible]
  - **List of potential solutions (alternatives)**
    - **NA-W: Construct noise berm/wall**
    - **NA-X: Upgrade run-up barriers (location/materials/size)**
    - **NA-Z: Evaluate run-up restrictions**

NA-W: Construct a noise berm/wall



Preliminary Noise Abatement Alternatives

NA-W: Construct a noise berm/wall

Benefits:

- Noise [illegible] up to [illegible] wall [illegible]

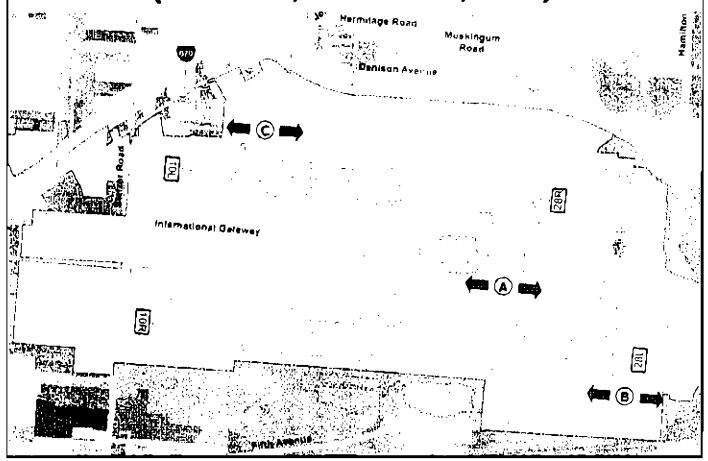
Drawbacks:

- Expensive to build and [illegible] wall [illegible] in length
- Has limited effect to homes located even 100 feet away from the wall. Has no effect on flight noise.

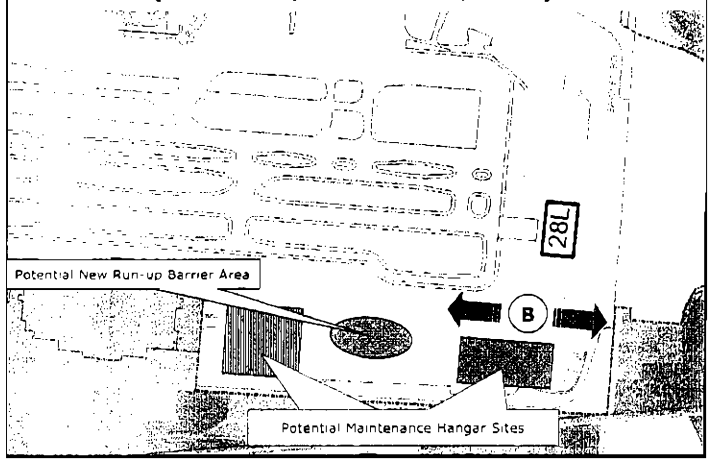
Preliminary Recommendations:

- Alternative is RECOMMENDED for further evaluation.

NA-X: Upgrade the Ground Run-up Barriers (location/materials/size).



NA-X: Upgrade the Ground Run-up Barriers (location/materials/size).



Preliminary Noise Abatement Alternatives

NA-X: Upgrade the Ground Run-up Barriers (location/materials/size)

Benefits:

- Run-up barriers reduce noise from engine run-ups by 1-10 dB depending on proximity of homes to the aircraft
- Current Barrier B upgraded to accept Design Group C-III will accommodate future demand at airport

Drawbacks:

- Expensive to build (>$800,000 per barrier)

Preliminary Recommendations:

- The upgrade and potential relocation of Barrier B is RECOMMENDED for further evaluation.

Preliminary Noise Abatement Alternatives

- **Summary of Recommendations for Ground Noise/Policies Alternatives**
  - **Recommended**
    - NA-W: Construct a noise berm/wall
    - NA-X: Upgrade run-up barriers (location/materials/size)
  - **Not Recommended**
    - NA-Z: Evaluate run-up restrictions

Preliminary Noise Abatement Alternatives

- **Summary of Noise Abatement Alternatives Recommended for Further Evaluation**
  - **NA-D:** Arrivals during the nighttime (10:00p.m. to 7:00 a.m.) use a side-step approach to Runway 28R
  - **NA-E:** All aircraft departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading
  - **NA-I:** Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course
  - **NA-N:** Create RNAV procedures
  - **NA-O:** Conduct study of CDA procedures to determine applicability/feasibility at CMH
  - **NA-R:** Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)
  - **NA-V:** Implement head-to-head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R)
  - **NA-W:** Construct a noise berm/wall
  - **NA-X:** Upgrade run-up barriers (location/materials/size)

Planning Advisory Committee

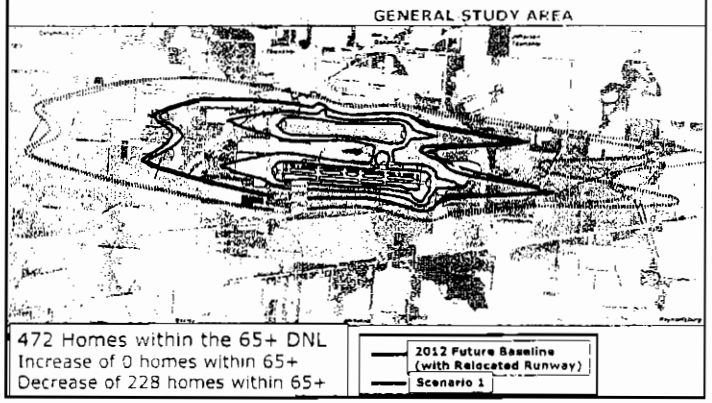
- **Development of Noise Abatement Scenarios**
  - **Purpose: Select the best individual alternatives for inclusion in a noise abatement scenario(s)**
  - **Evaluated 4 Scenarios against the same criteria as the alternatives**
  - **Not all alternatives would be feasible to be implemented at the same time**

Preliminary Noise Abatement Scenarios

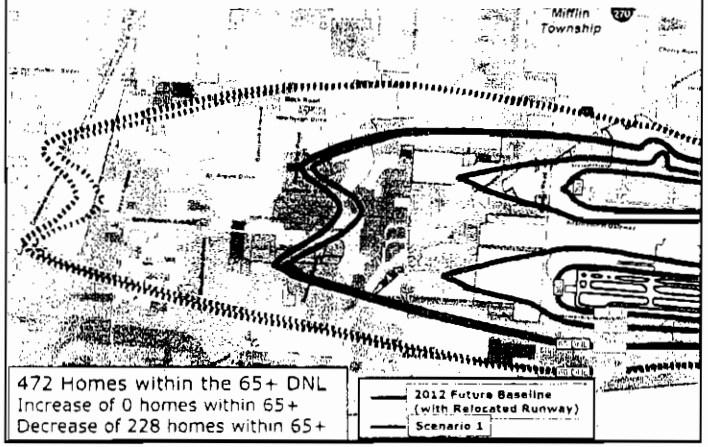
Scenario 1: NA-D, NA-E, NA-I, and NA-R

- **NA-D: Arrivals** [illegible] **the nighttime (10:00 p.m. to 7:00 a.m.) [illegible] multiple-step approach to Runway 28R**
- **NA-E: Arrivals Flying Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading**
- **NA-I: Nighttime (10:00 p.m. to 7:00 a.m.) departures off Runway 10R turn immediately left 10 degrees before turning on course**
- **NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)**

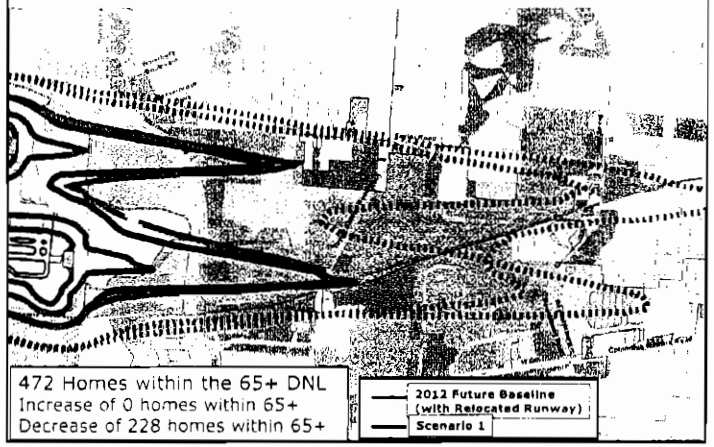
Scenario 1: NA-D, NA-E, NA-I, and NA-R



Scenario 1: NA-D, NA-E, NA-I, and NA-R



Scenario 1: NA-D, NA-E, NA-I, and NA-R



Preliminary Noise Abatement Scenarios

Scenario 1: NA-D, NA-E, NA-I, and NA-R

Benefits:
- Decreases the number of homes in 65+ DNL by 228
- Decreases the number of homes in 60-65 DNL by 447

Drawbacks:
- Shifts noise impacts in 60-65 DNL (+620/-1,067)
  - 228 of the 620 is shifted from 65 to 60 (decreased noise)

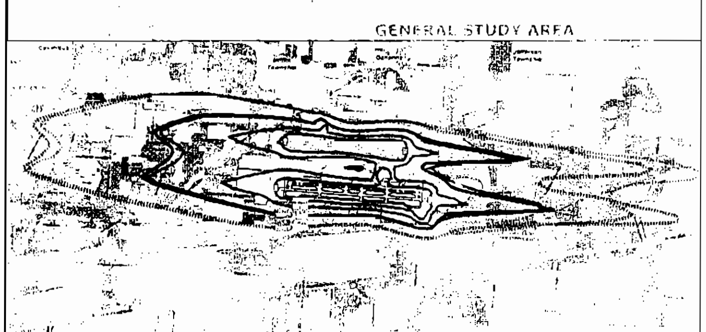
Preliminary Recommendations:
- Scenario 1 is not recommended as the 2008 NCP noise contour due to having a greater number of impacts compared to Scenario 2

Preliminary Noise Abatement Scenarios

Scenario 2: NA-D, NA-E, and NA-R

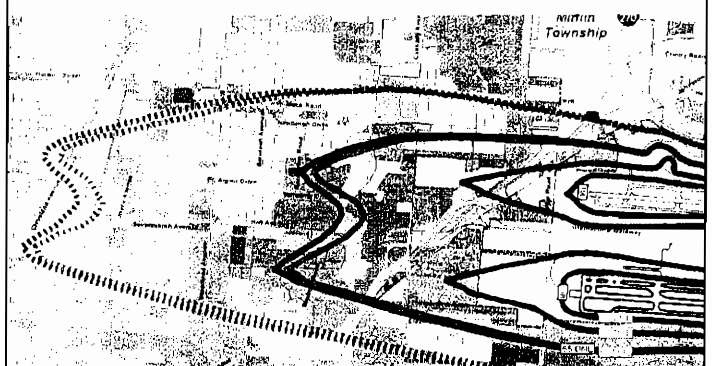
- NA-D: Arrivals landing during nighttime (10:00 p.m. to 7:00 a.m.) use visual sidestep approach to Runway 28L
- NA-E: All traffic departing Runway 28R turn right 15 degrees after crossing the runway end to a 295 degree heading
- NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)

Scenario 2: NA-D, NA-E, and NA-R



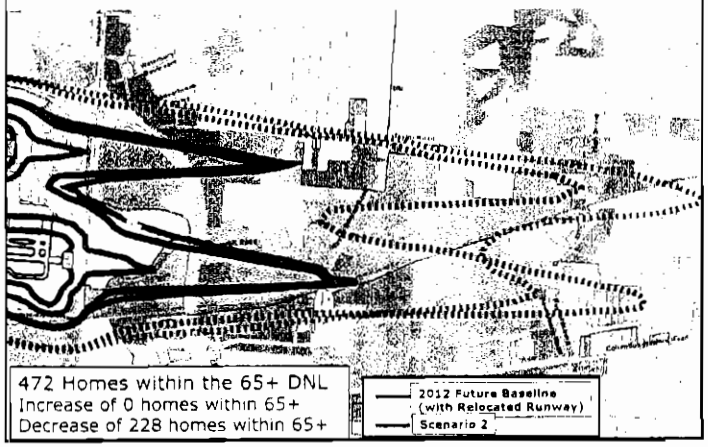
472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+

Scenario 2: NA-D, NA-E, and NA-R

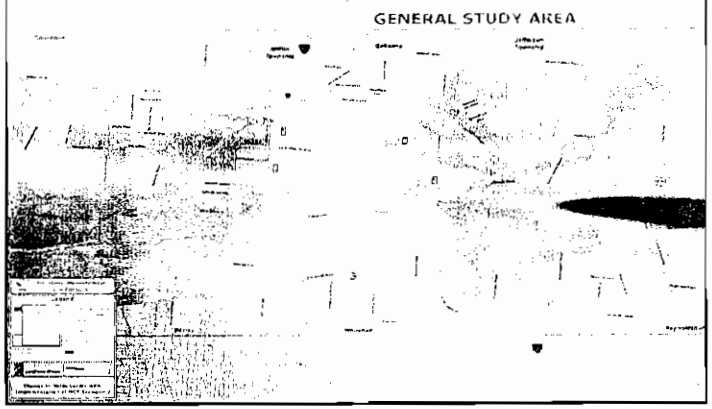


472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+

Scenario 2: NA-D, NA-E, and NA-R



Scenario 2: NA-D, NA-E, and NA-R



Preliminary Noise Abatement Scenarios

Scenario 2: NA-D, NA-E, and NA-R

Benefits:
- Decrease in the number of homes in 65+ DNL by -228
- Decrease the number of homes in 60-65 DNL by -469

Drawbacks:
- Shift noise impacts in 60-65 DNL (-562/+1,031)
- 228 of the 562 is shifted from 65 to 60 (decreased noise)

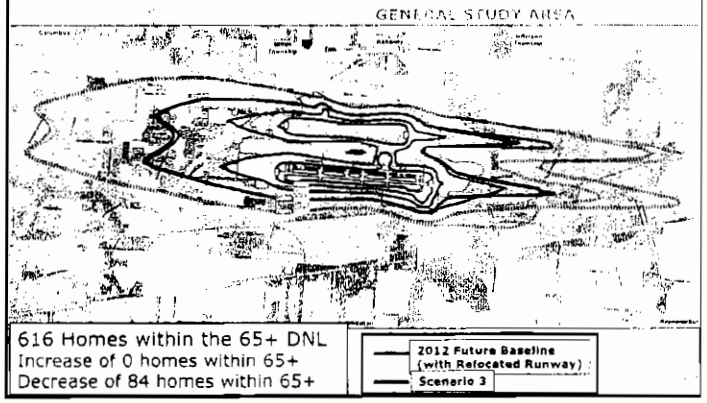
Preliminary Recommendations:
- Scenario 2 is RECOMMENDED as the 2008 NCP noise contour due to having the least number of overall impacts with the smallest shift in impacts.

Preliminary Noise Abatement Scenarios

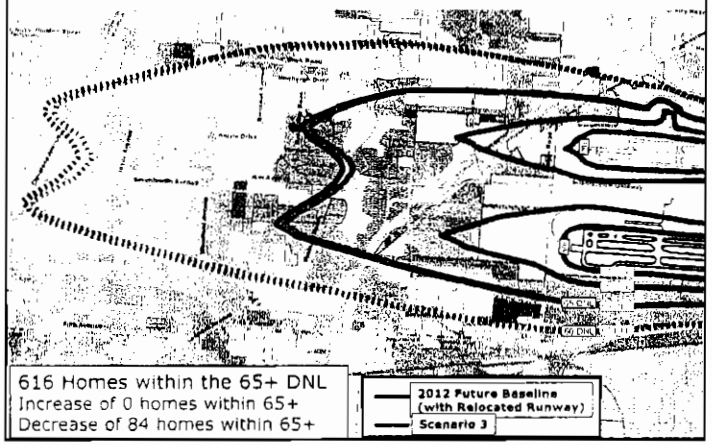
Scenario 3: NA-E, NA-R, and NA-V

- **NA-E: All traffic departing Runway 28 shall turn right 15 degrees and proceed until the runway end to a 295 degree heading**
- **NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runway 10L/10R)**
- **NA-V: Implement head-to-head operations during *calm winds* at nighttime for all aircraft (includes a departure turn off of Runway 10R)**

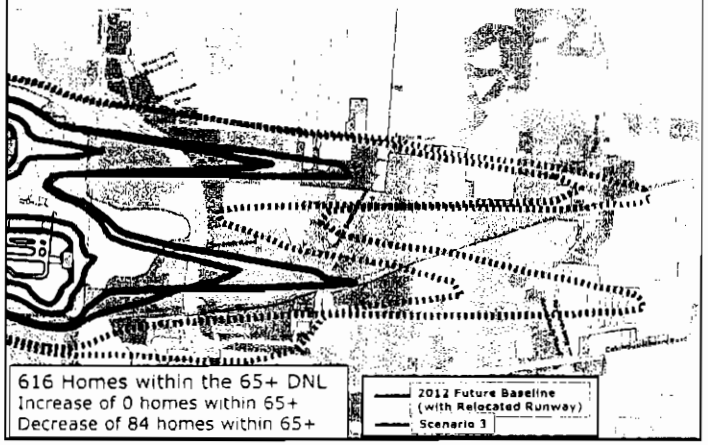
Scenario 3: NA-E, NA-R, and NA-V



Scenario 3: NA-E, NA-R, and NA-V



Scenario 3: NA-E, NA-R, and NA-V



Preliminary Noise Abatement Scenarios

Scenario 3: NA-E, NA-R, and NA-V

Benefits:

- Decreases the number of impacts in 65-69 DNL (-631 / -754)
- Decreases the number of impacts in 70+ DNL (0 / -2)

Drawbacks:

- Shifts noise impacts in 65-69 DNL (-631 / +754)
  - 84 of the 631 is shifted from 65 to 60 (decreased noise)

Preliminary Recommendations:

- Scenario 3 is not recommended as the 2008 NCP noise contour due to having a greater number of impacts compared to Scenario 2 and it would require additional air traffic coordination to ensure safety (may be difficult to implement consistently)

Preliminary Noise Abatement Scenarios

Scenario 4: NA-E and NA-R

- NA-E: All traffic departing Runway 28R turns right 15 degrees after crossing the runway end, to a 105 degree heading.
- NA-R: Renew Efforts to Maximize East Flow (arrive and depart Runways 10L/10R)

Port Columbus International Airport
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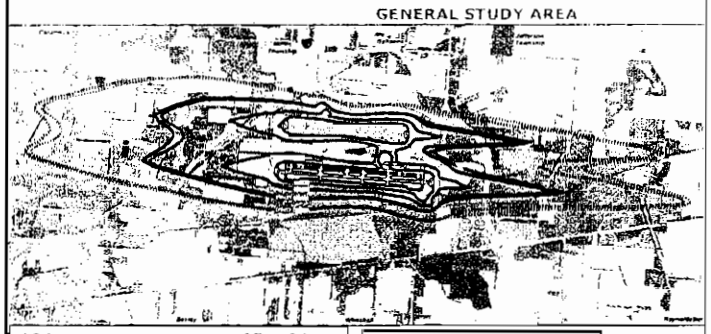
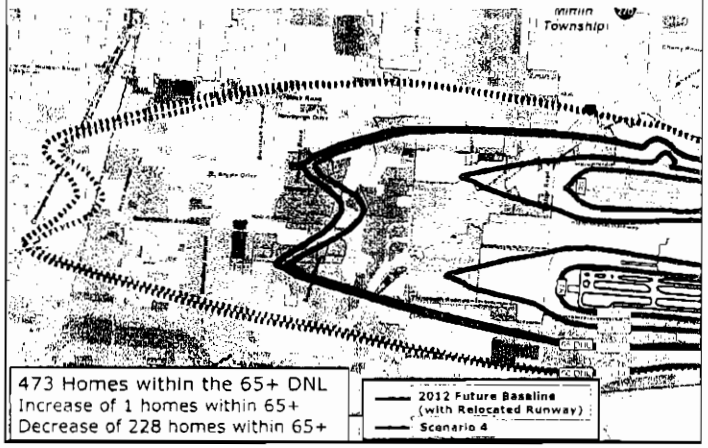
Scenario 4: NA-E and NA-R



473 Homes within the 65+ DNL
Increase of 1 homes within 65+
Decrease of 228 homes within 65+

2012 Future Baseline (with Relocated Runway)
Scenario 4

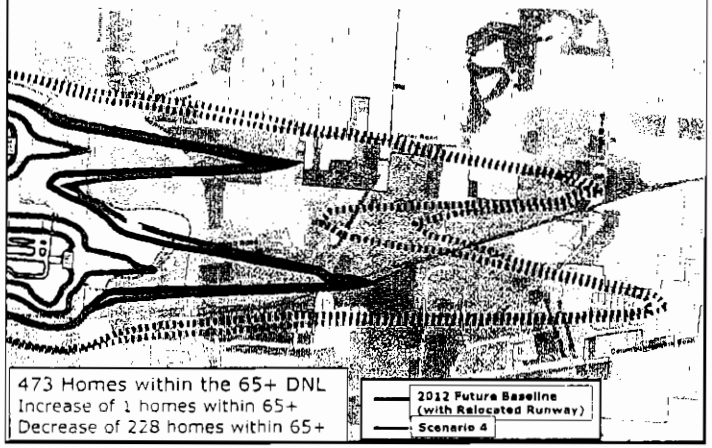
Scenario 4: NA-E and NA-R



473 Homes within the 65+ DNL
Increase of 1 homes within 65+
Decrease of 228 homes within 65+

2012 Future Baseline (with Relocated Runway)
Scenario 4

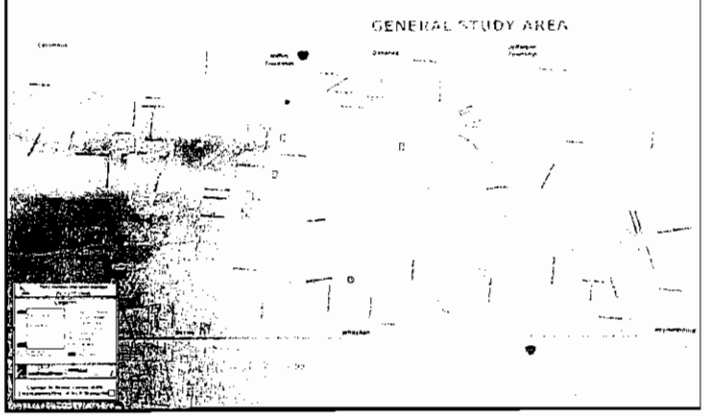
Scenario 4: NA-E and NA-R



473 Homes within the 65+ DNL
Increase of 1 homes within 65+
Decrease of 228 homes within 65+

2012 Future Baseline (with Relocated Runway)
Scenario 4

Scenario 4: NA-E and NA-R



Preliminary Noise Abatement Scenarios

Scenario 4: NA-E and NA-R

Benefits:

- Decreases the number of homes [illegible] DNL by 205
- Decreases the number of homes in 60-65 DNL by 164

Drawbacks:

- Shifts noise impacts in 60-65 DNL (609/772)
  - 228 of the 609 is shifted from 65 to 60 (decreased noise)

Preliminary Recommendations:

- Scenario 4 is not recommended as the 2008 NCP noise contour due to having a greater number of impacts compared to Scenario 2

Preliminary Noise Abatement Scenarios

NUMBER OF IMPACTS						
Housing Units						
2013 Future Baseline (with Relocated Runway)						
Scenario 1						
Scenario 2						
Scenario 3						
Scenario 4						
Population						
2013 Future Baseline (with Relocated Runway)						
Scenario 1						
Scenario 2						
Scenario 3						
Scenario 4						

- **Preliminary Recommendation:**
  - **Scenario 2** is RECOMMENDED as the 2008 NCP noise contour due to having the least number of overall impacts with the smallest shift in noise.

Planning Advisory Committee

- **Current Land Use Mitigation Measures**

Planning Advisory Committee

- **Land Use Management Alternatives**
  - **Preventive**
    - Capital improvement programming
    - Zoning
    - Exclusion of noise sensitive uses
    - Fair purchase of development rights
    - Open space or environmental protection
    - Subdivision regulations
    - Building codes
    - Fair disclosure regulations/covenants
  - **Corrective**
    - Development Rights Purchase
    - Purchase Assurance, Sales Assistance
    - Noise and Avigation Easement Purchase
    - Sound Insulation

Current Land Use Mitigation Measures

- **LU-1:** Offer a program to purchase [illegible] structures for [illegible] dB contour of the [illegible] Exposure Map with [illegible] an avigation easement.
  - **Status:** [illegible] NEM 65 DNL.
  - **Recommendation:** [illegible] of program boundary based on the [illegible]
- **LU-2:** Offer a program to purchase [illegible] structures for non-compatible uses within the DNL 65 dB contour of the year 2005 Future Condition Noise Exposure Map, with program implementation [illegible] an avigation easement.
  - **Status:** One church, the Wonderland Community Church, is located in the 65 DNL of the 2012 Proposed Action Contour. The CRAA purchased an avigation easement on the property, therefore it is considered compatible.
  - **Recommendation:** Continue measure

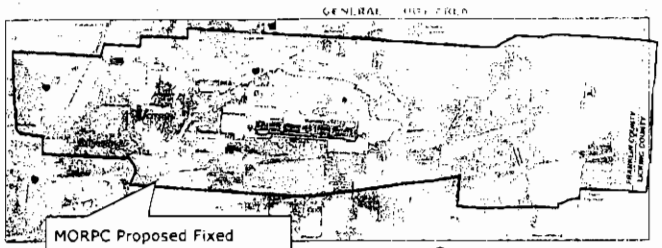
Current Land Use Mitigation Measures

- **LU-3:** Seek cooperation from the City of Columbus and Franklin County to amend [illegible] Land Use Compatibility Standards to adopt [illegible] of compatibility identified in the recommended Land Use Compatibility Guidelines.
  - **Status:** [illegible] Not Implemented.
  - **Recommendation:** Continue measure.
- **LU-4:** Seek cooperation from the City of Columbus and Franklin County to amend the boundaries of the Airport Environs Overlay (AEO) District to correspond to the DNL 60 dB and greater noise contours.
  - **Status:** Not implemented. Both Columbus and Franklin County set the AEO boundary at the 65 DNL contour.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management (ALUM) District corresponding to the 60 DNL contour.

Current Land Use Mitigation Measures

- **LU-5:** Seek cooperation from [illegible] to amend the Franklin County Zoning Resolution to require [illegible] Avigation Easement [illegible] change of use or [illegible] avigation easement [illegible]
  - **Status:** [illegible] require [illegible] variance or [illegible]
  - **Recommendation:** Continue measure with modification to include Gahanna, Jefferson Township.
- **LU-6:** Seek cooperation from Jefferson Township and the City of Gahanna to adopt the Airport Environs Overlay (AEO) District as part of their official zoning regulations.
  - **Status:** Not Implemented
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) corresponding to the 60 DNL of the 20 year NCP contour.

Proposed Airport Land Use Management District Boundary



Current Land Use Mitigation Measures

- Airport Land Use Management District (ALUMD) will be based on [illegible] and is for planning purposes only.
- The Boundary shown on the [illegible] is the one proposed by MORPC.
- Once the NOP is finalized, the 5-year NCP contours will be produced and the ALUMD boundary will be finalized.

Current Land Use Mitigation Measures

- LU-7: Seek cooperation of Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision [illegible] Environs Overlay (AEO) District.
  - **Status:** Not Implemented.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary.
- LU-8: Seek cooperation of Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the Airport Environs Overlay (AEO) District.
  - **Status:** Not Implemented.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary.

Current Land Use Mitigation Measures

- LU-9: Seek cooperation [illegible] participate [illegible] located within the AEO District.
  - **Status:** [illegible]
  - **Recommendation:** [illegible]
- LU-10: Periodically place advertisements in the real estate sections of local newspapers identifying the boundaries of the AEO District.
  - **Status:** Not implemented.
  - **Recommendation:** Continue with modification to advertise AEO/ Airport Land Use Management District (ALUMD) boundaries through a variety of media (e.g., Website), not specifically real estate sections of newspapers.

Current Land Use Mitigation Measures

- LU-1: Purchase [illegible] property to prevent imminent nonc[illegible] development from occurring
  - **Status:** Not [illegible]
  - **Recommendation:** Withdraw measure

Alternative Land Use Mitigation Measures

- **LU-A:** Purchase [illegible] within the 65 DNL [illegible]
  - **Description:** [illegible] Insulation [illegible] on [illegible] commercial and industrial [illegible] a compatible [illegible]
  - **Recommendation:** [illegible] area that is transitioning to commercial and industrial uses. The remaining homes will likely be converted to such compatible uses in the near future. Therefore, this measure is not recommended for inclusion.

Planning Advisory Committee

- **Current Program Management Measures**

Current Program Measures

- **PM-1:** Maintain the [illegible] ATCT Tower Order
  - **Status:** Implemented
  - **Recommendation:** Continue measure
- **PM-2:** Maintain the Noise Metering [illegible] for noise compatibility program management
  - **Status:** Ongoing
  - **Recommendation:** Continue measure
- **PM-3:** Maintain an ongoing public involvement program regarding the noise compatibility program
  - **Status:** Ongoing
  - **Recommendation:** Continue measure

Current Program Measures

- PM-4: Maintain the noise and flight track monitoring system, and expand and upgrade the system as necessary. Add four (4) permanent NMTs and upgrade the computer software and hardware as necessary.
  - **Status:** Nine planned four NMTs have been installed since the previous Part 150, bringing the total to 12 NMTs, and a recent upgrade from TAMS to ANOMS software has occurred.
  - **Recommendation:** Continue measure with modification to install four additional NMTs along the centerline of the proposed runway (two on east and two on west).

Current Program Measures

- **PM-5:** Routinely update the [illegible] periodically update the [illegible]
  - **Status:** Ongoing
  - **Recommendation:** Continue measure
- **PM-6:** Establish a land use committee or task force which meets periodically to discuss issues relating to airport noise compatibility planning.
  - **Status:** The noise compatibility task force is inactive.
  - **Recommendation:** Continue measure with modification to [illegible] meetings as necessary or requested.

Next Steps

- **Workshops Tonight**
- **Continue evaluation of alternatives**
  - **Coordination with FAA/Airlines**
- **Please [illegible] questions by**
  - **[illegible]**
  - **[illegible]@landrum-brown.com**
  - **(303) 530-1201**
- **Finalize the NCP**
- **Next PAC meeting – June/July 2007**
  - **Concourse Hotel – 10 a.m. to 1 p.m.**
- **Next Workshops/Hearing –July/August 2007**

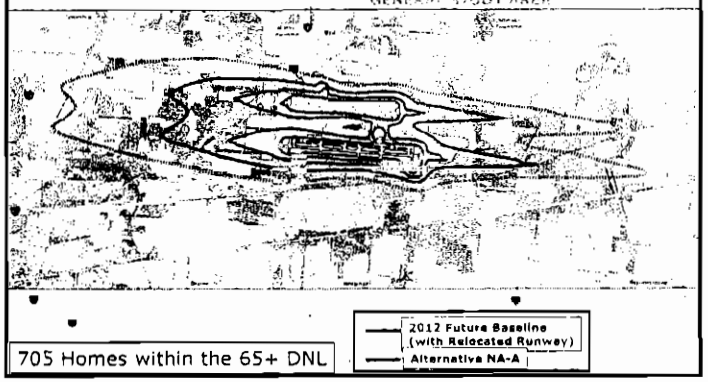
Preliminary Noise Abatement Alternatives

Supplemental Information

- Alternatives not presented

NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading.

NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading.



705 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

NA-A: All traffic departing Runway 28L turn left 15 degrees after crossing the runway end to a 265 degree heading.

Benefits:

- Increases capacity and reduces delays by giving ATCT an additional heading

Drawbacks:

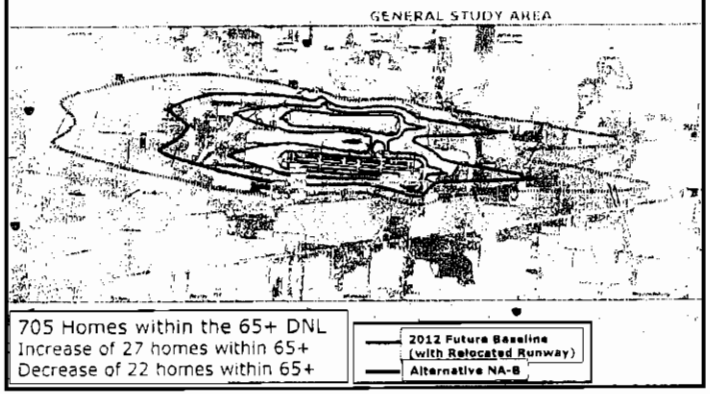
- Shifts noise from one area to another
- Increase overall noise impacts in the +65 DNL by 5 homes

Preliminary Recommendation:

- Due to the increase in the noise impacts in the 65+ DNL the alternative is NOT RECOMMENDED for further evaluation.

NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.

NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.



Preliminary Noise Abatement Alternatives

NA-B: All traffic departing Runway 28L turn left 20 degrees after crossing the runway end to a 265 degree heading.

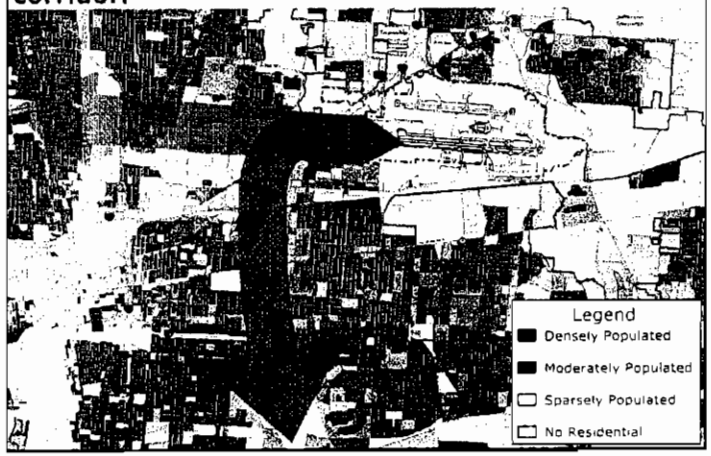
Benefits:
- Increases capacity (reduces delays by allowing ATC1 and additional flights)
- Decrease in overall noise impacts in the 60-65 DNL by 31 homes

Drawbacks:
- Increase in noise impacts in 65+ DNL by 5 homes
- Shifts noise impacts in 65+ DNL (+27/-22 homes)
- Shifts noise impacts in 60-65 DNL (+124/-155 homes)

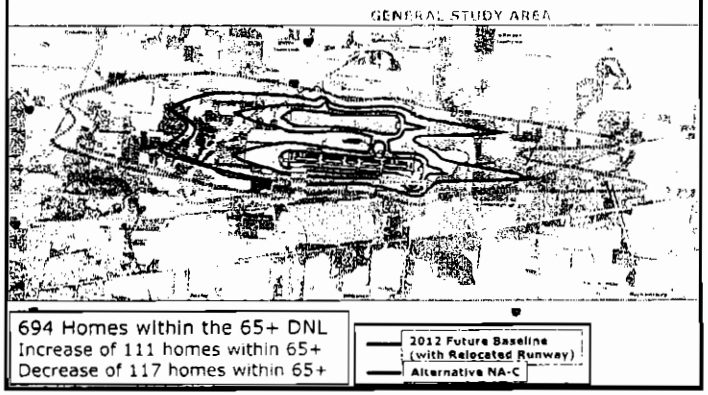
Preliminary Recommendation:
- Due to the increase in the noise impacts in the 65+ DNL and the shifting of noise from one area to another, the alternative is NOT RECOMMENDED for further evaluation.

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 102

NA-C: All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.



NA-C: All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.



Preliminary Noise Abatement Alternatives

NA-C: All southbound traffic departing Runway 28L turn left and follow the Interstate 670/70 corridor.

Benefits:
- Reduces [illegible] the [illegible]
- Decreases [illegible]
- Decreases [illegible]

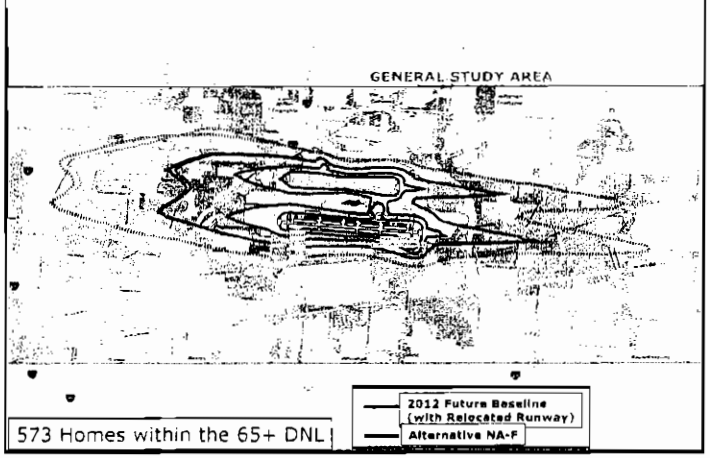
Drawbacks:
- Shifts noise impacts [illegible]
- Shifts noise impacts in 60-65 DNL [illegible]

Preliminary Recommendation:
- Due to the shifting of noise from one area to another in 65+ DNL and the 60-65 DNL, the alternative is NOT RECOMMENDED for further evaluation.

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 105

NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.

NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.



Preliminary Noise Abatement Alternatives

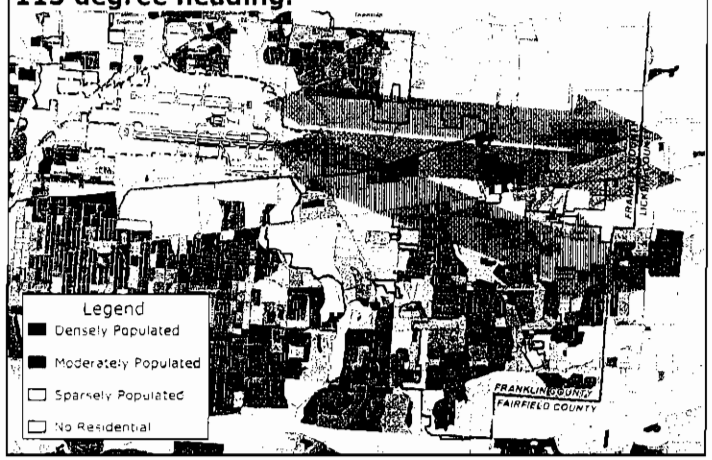
NA-F: All northbound traffic departing Runway 28R turn right to a 360 degree heading.

Benefits:
- Reduces noise in those areas that are located along the current departure flight track
- Decreases noise impacts in 65+ DNL by 127 homes

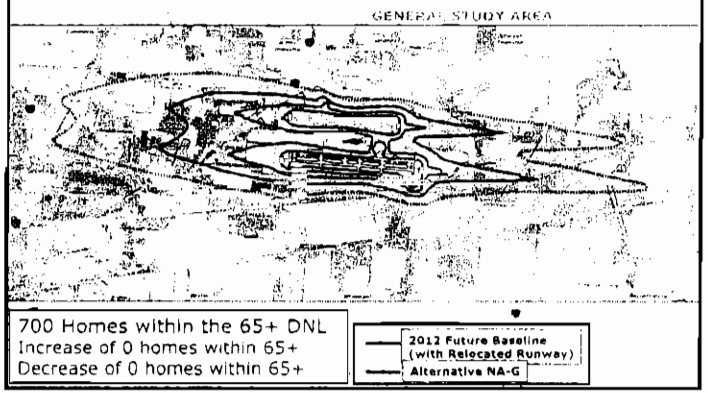
Drawbacks:
- Shifts noise from one area to another
- Will cause airspace conflicts with arrivals at Ohio State University Airport

Preliminary Recommendation:
- Due to the conflicts with arrivals at Ohio State University Airport the alternative is NOT RECOMMENDED for further evaluation.

NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.



NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.



Preliminary Noise Abatement Alternatives

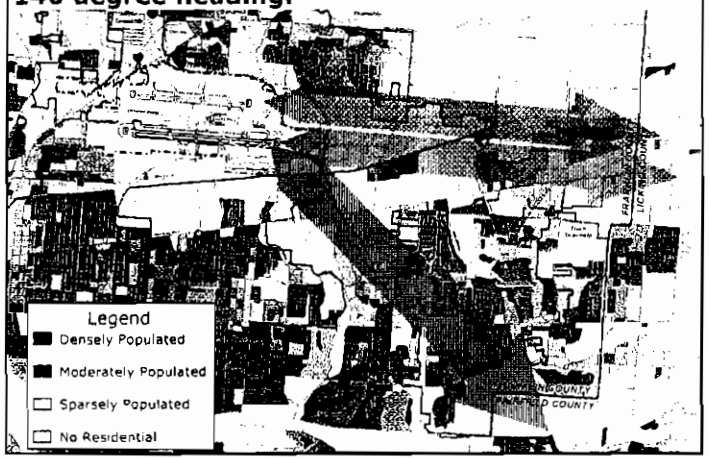
NA-G: All traffic departing Runway 10R turn right 15 degrees after crossing the runway end to a 115 degree heading.

Benefits:
- Increases capacity and reduces delay by providing ATC an additional heading

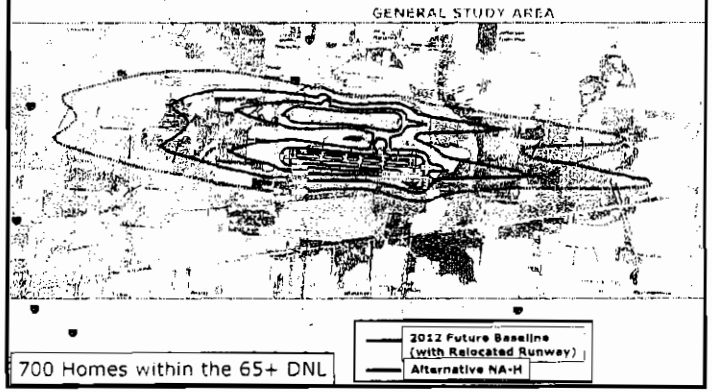
Drawbacks:
- No benefit in noise impacts in 65+ DNL
- Shifts noise impacts in 60-65 DNL (+11/-7 homes)

Preliminary Recommendation:
- Due to no change in the noise impacts in the 65+ DNL and the shift of impacts between the 60 and 65 DNL, the alternative is NOT RECOMMENDED for further evaluation.

NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.



NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.



Preliminary Noise Abatement Alternatives

NA-H: All traffic departing Runway 10R turn right 40 degrees after crossing the runway end to a 140 degree heading.

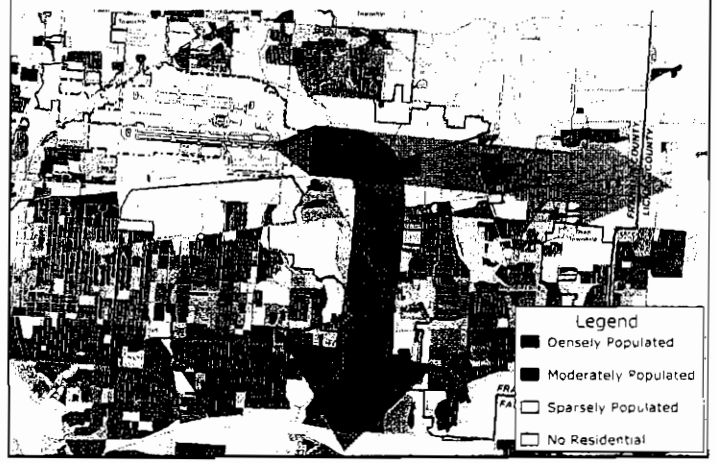
Benefits:
- Increases capacity and reduces delays in the ATC system and enhances safety.

Drawbacks:
- Shifts noise from one area to another.
- No change in noise impacts in 65+ DNL.
- Will cause airspace conflicts with Rickenbacker International Airport.

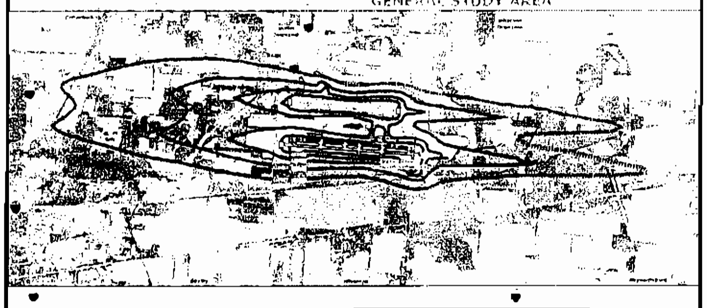
Preliminary Recommendation:
- Due to no reductions in the noise impacts in the 65+ DNL and the airspace conflicts with Rickenbacker International Airport the alternative is NOT RECOMMENDED for further evaluation.

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study 114

NA-J: All southbound traffic departing Runway 10R turn right and follow the 270 corridor.



NA-J: All southbound traffic departing Runway 10R turn right and follow the 270 corridor.



700 Homes within the 65+ DNL

Preliminary Noise Abatement Alternatives

NA-J: All southbound ... turn right and follow ...

Benefits:

- Redu...
- De... by 98 homes

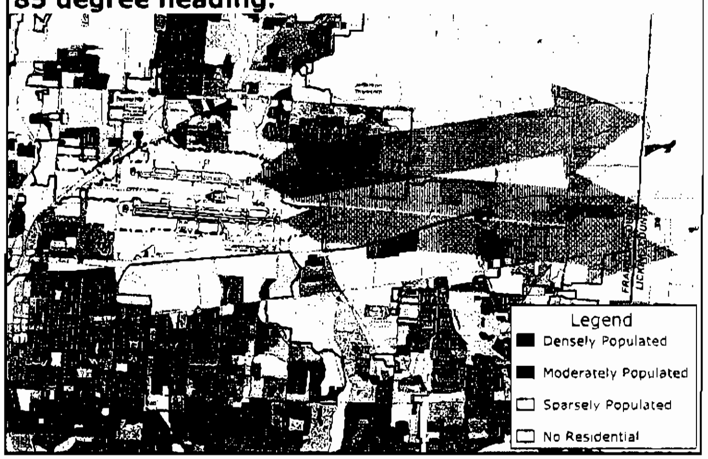
Drawbacks:

- Shifts noise from one area to another
- No change in noise impacts in 65+ DNL

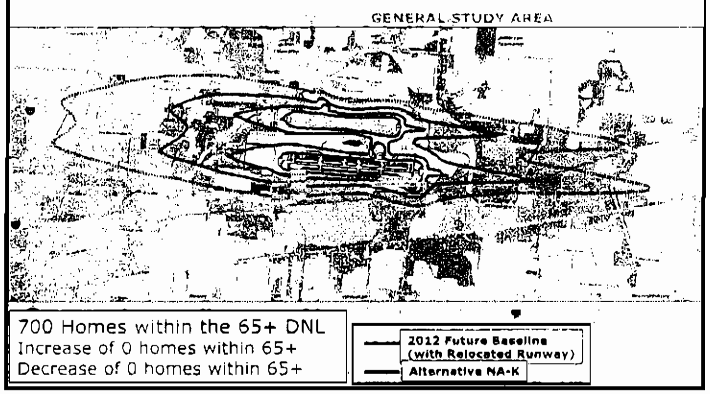
Preliminary Recommendation:

- Due to no reductions in the noise impacts in the 65+ DNL the alternative is NOT RECOMMENDED for further evaluation.

NA-K: All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading.



NA-K: All traffic departing Runway 10L turn left 15 degrees after crossing the runway end to an 85 degree heading.



700 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 0 homes within 65+

Preliminary Noise Abatement Alternatives

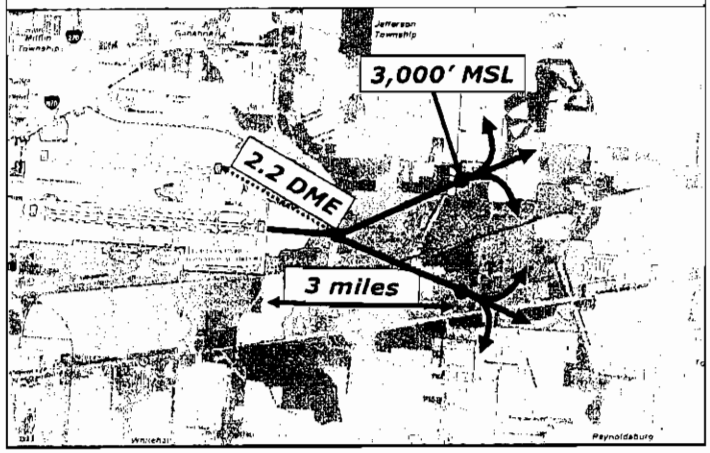
NA-K: All traffic departing runway 10L turns to the [illegible] or crossing the [illegible]

Benefits:
- Increased capacity which reduces delays by allowing aircraft to [illegible]

Drawbacks:
- No benefit in noise impacts in 65+ DNL
- Increase/shifts noise impacts in 60-65 DNL (4-7/-2 homes)

Preliminary Recommendation:
- Due to no change in the noise impacts in the 65+ DNL and the increase/shift of impacts between the 60 and 65 DNL, the alternative is NOT RECOMMENDED for further evaluation.

NA-L: Modify (NA-4) current Tower Order to assign jet aircraft to prop departure.



Preliminary Noise Abatement Alternatives

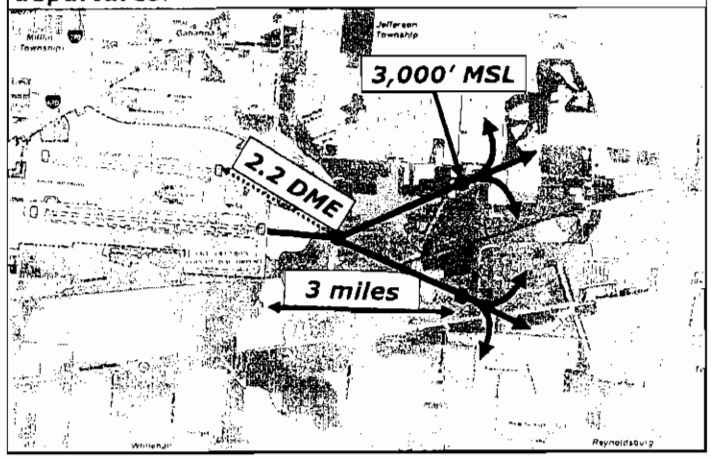
NA-L: Modify (NA-4) current Tower Order to assign jet aircraft to prop [illegible]

Benefits:
- None

Drawbacks:
- Jet aircraft will have to be at lower altitude when the turn is initiated
- Additional noise impacts may occur due to where the turns are initiated

Preliminary Recommendation:
- Due to no benefits in implementing this procedure and the additional noise impacts that may occur where the turns are initiated the alternative is NOT RECOMMENDED for further evaluation.

NA-M: Modify (NA-4) current Tower Order to eliminate the flight procedure for prop departures.



Preliminary Noise Abatement Alternatives

NA-M: Modify (NA-4) current Tower Order to eliminate the flight procedure for prop departures.

Benefits:
- Procedure was implemented to address AirNet operations during the nighttime.
- AirNet has since relocated to LCK.

Drawbacks:
- Given the current operations, there are no drawbacks to removing the procedure.

Preliminary Recommendation:
- Due to the relocation of AirNet to LCK and given the small number of nighttime prop departures the alternative is RECOMMENDED for further evaluation.

Preliminary Noise Abatement Alternatives

NA-N: Create Area Navigation (RNAV) overlay procedures for all existing and proposed departure procedures.

Description:
- Intent is to reduce the width of departure flight corridors and by doing so reduce overflights and create a more predictable flight pattern. Dispersion of flight corridors reduces from 4.5 nm to 2.5nm.
- Various technologies are used: (GPS, GPS/FMS).

Preliminary Noise Abatement Alternatives

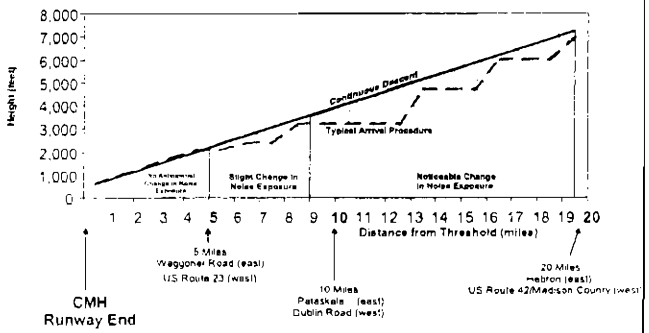
NA-N: Create Area Navigation (RNAV) overlay procedures for all existing and proposed departure procedures.

Benefits:
- Will increase noise in areas adjacent to established flight corridors.

Drawbacks:
- Would increase noise for those areas under the established flight corridors.
- Could be a consuming and costly process to undertake.

Preliminary Recommendations:
- Due to the potential benefits in both noise and fuel savings, the alternative is RECOMMENDED for inclusion in the NCP

NA-O: Implement a Continuous Descent Approach (CDA) for all runway ends.



Preliminary Noise Abatement Alternatives

NA-O: Implement a Continuous Descent Approach (CDA) for all runway ends.

Benefits:

- Potential [illegible] 4-5dB [illegible] from the airport. Additional benefits to airlines [illegible] fuel burn.

Drawbacks:

- [illegible] in the test stages of the procedure. In preliminary tests aircraft were required to maintain 15 miles of in-trail separation, which would result in significant delays during the busy periods (reduces from 35 to 7 arrivals per hour)

Preliminary Recommendations:

- Since the procedure is in test stages, the alternative is NOT RECOMMENDED for inclusion in the NCP at this time.
- CRAA/consultant will look into the possibility of CMH as a test airport during less busy times such as nighttime

Preliminary Noise Abatement Alternatives

NA-P/Q: Implement Noise Abatement Departure Procedures (NADP)

Description:

- FAA has developed two NADP procedures designed to reduce noise impacts through [illegible] thrust settings
  - Close-in procedures lower noise levels in the areas within [illegible] of takeoff roll
  - Distant procedures lower noise levels beyond 3 miles of takeoff roll
- Procedures are most effective on Stage 2 aircraft (older engines)
- When applied to Stage 3 aircraft (newer engines) the result is generally more noise in all areas
- Majority of aircraft at CMH are Stage 3

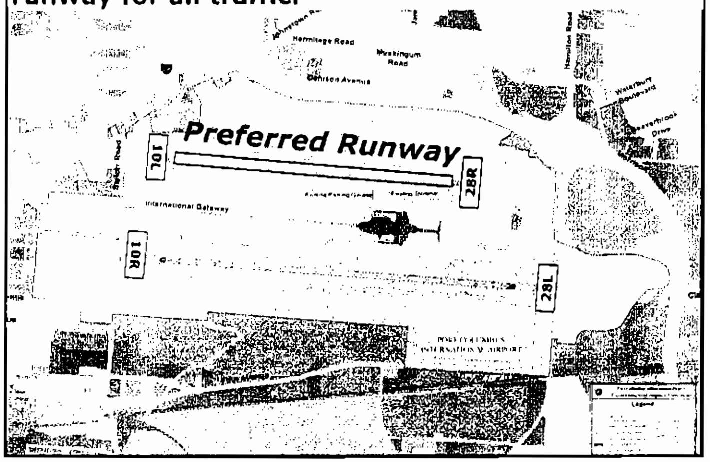
Preliminary Noise Abatement Alternatives

NA-P/Q: Implement Noise Abatement Departure Procedures (NADP)

Preliminary Recommendation:

- Due to the majority of aircraft at CMH are Stage 3, no benefits are seen by implementing the NADPs, therefore the alternative is NOT RECOMMENDED for further evaluation.

NA-S: Designate Runway 10L/28R as the preferential nighttime (10:00 p.m. to 7:00 a.m.) runway for all traffic.



Preliminary Noise Abatement Alternatives

NA-S: Designate Runway 10L/28R as the preferential runway for all traffic during the nighttime (10:00 p.m. to 7:00 a.m.).

Benefits:

- Decrease noise to the northeast and southwest of the airport.

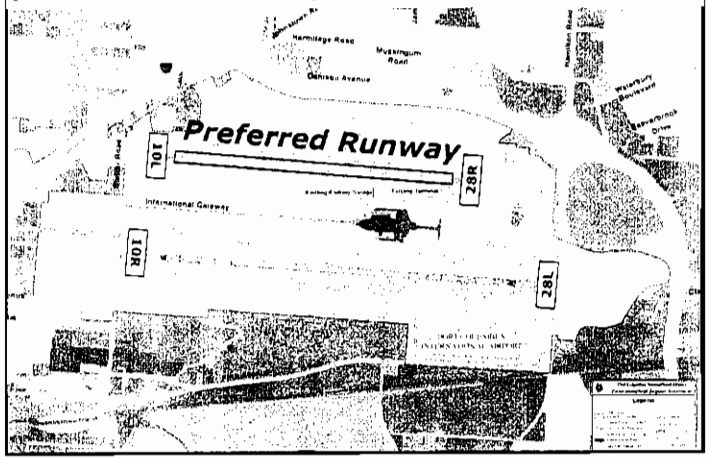
Drawbacks:

- The north runway is the shorter runway and will not be the preferred runway by the airlines.
- Increase noise to the northeast and northwest of the airport.
- Increase taxi time for aircraft located on the south side of the terminal.

Preliminary Recommendation:

- Due to the north runway being the shortest runway and the increase in taxitimes the alternative is NOT RECOMMENDED for further evaluation.

NA-T: Designate Runway 10L/28R as the preferential runway all the time.



Preliminary Noise Abatement Alternatives

NA-T: Designate Runway 10L/28R as the preferential runway all the time.

Benefits:

- Decrease noise to the northeast and southwest of the airport.

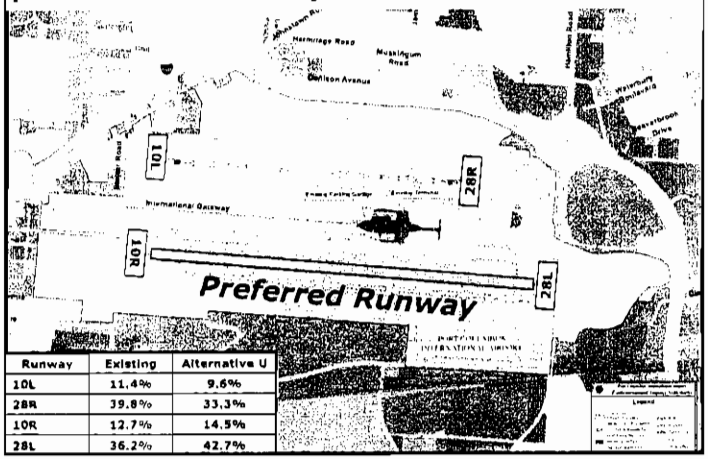
Drawbacks:

- The north runway is the shorter runway and will not be the preferred runway by the airlines.
- Increase noise to the northeast and northwest of the airport.
- Increase taxi time for aircraft located on the south side of the terminal.

Preliminary Recommendation:

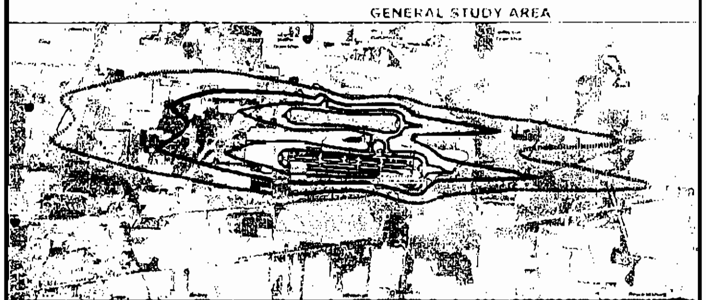
- Due to the north runway being the shortest runway and the increase in taxitimes the alternative is NOT RECOMMENDED for further evaluation.

NA-U: Designate Runway 10R/28L as the preferential runway all the time.



Runway	Existing	Alternative U
10L	11.4%	9.6%
28R	39.8%	33.3%
10R	12.7%	14.5%
28L	36.2%	42.7%

NA-U: Designate Runway 10R/28L as the preferential runway all the time.



617 Homes within the 65+ DNL
Increase of 41 homes within 65+
Decrease of 124 homes within 65+

Preliminary Noise Abatement Alternatives

NA-U: Designate Runway [illegible] runway all the time.

Benefits:

- Decreases [illegible]

Drawbacks:

- Shifts noise impacts [illegible]
- Shifts noise impacts [illegible]
- Increases [illegible] the terminal [illegible]

Preliminary Recommendations:

- Due to the shift of noise impacts [illegible] the 65 DNL and the increase/shift of noise impacts [illegible] DNL, the alternative is NOT RECOMMENDED for further evaluation.

Preliminary Noise Abatement Alternatives

NA-Y: Implement Airport [illegible] (Part [illegible]

Description:

- [illegible]
- [illegible]

Benefits:

- Can resolve noise annoyance problems during the most sensitive periods, or of the most annoying events.

Drawbacks:

- Requires extensive additional evaluation, with little hope of approval given the FAA's current stance on Part 161 actions.

Preliminary Noise Abatement Alternatives

NA-Y: Implement [illegible] (Part 161).

Preliminary Recommendation:

- Due [illegible] 161 [illegible] Part [illegible] further evaluation.

Preliminary Noise Abatement Alternatives

NA-2: Evaluate Ground Run-up restrictions.

Benefits:

- Restrictions provide guidelines for when, where, and what type of run-ups occur at the airport.

Drawbacks:

- Needs to be developed in a way that does not impact the livelihood of the operators at the airport.

Preliminary Recommendations:

- Run-up restrictions have been evaluated and no changes are recommended at this time to be included in the NCP.

Preliminary Noise Abatement Alternatives

Supplemental Information

- Noise Impact Tables

Existing (2006) Baseline Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	852	0	0	0	0
Easement	20	0	3	5	8
Unmitigated					
Eligible for Sound Insulation but not insulated	160	0	0	0	0
Not Previously Mitigated	1,747	0	0	0	0
Mifflin Township					
Mitigated					
Sound Insulated	24	12	0	0	12
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	10	2	0	0	2
Not Previously Mitigated	7	0	0	0	0
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	0	0	0	0	0
Not Previously Mitigated	6	0	0	0	0
GRAND TOTAL	2,916	12	8	0	12

Future Baseline (With Relocated Runway) Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	357	301	0	0	301
Easement	339	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	81	80	0	0	80
Not Previously Mitigated	4,750	251	0	0	251
Mifflin Township					
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
GRAND TOTAL	5,584	700	0	0	700

Alternative NA-A Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	372	286	0	0	286
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	84	77	0	0	77
Not Previously Mitigated	4,692	294	0	0	294
Mifflin Township					
Mitigated					
Sound Insulated	0	95	0	0	95
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
GRAND TOTAL	5,544	705	0	0	705

* East Mount Olivet Baptist Church is located in the 65 DNL noise contour

Alternative NA-B Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	372	286	0	0	286
Easement	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	84	77	0	0	77
Not Previously Mitigated	4,701	294	0	0	294
Mifflin Township					
Mitigated					
Sound Insulated	0	95	0	0	95
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
GRAND TOTAL	5,553	705	0	0	705

* East Mount Olivet Baptist Church is located in the 65 DNL noise contour

Alternative NA-C Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	437	371	0	0	371
Easement	236	1	0	0	1
Unmitigated					
Eligible for Sound Insulation but not Insulated	99	62	0	0	62
Not Previously Mitigated	4,701	294	0	0	294
Mifflin Township					
Mitigated					
Sound Insulated	2	33	0	0	33
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
GRAND TOTAL	5,632	693	0	0	693

* East Mount Olivet Baptist Church is located in the 65 DNL noise contour

Alternative NA-D Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	367	301	0	0	301
Easement	78	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,688	251	0	0	251
Mifflin Township					
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	18	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	30	0	0	0	0
GRAND TOTAL	5,277	700	0	0	700

Alternative NA-E Noise Exposure Contours

Columbus	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Mitigated					
Sound Insulated	376	36	0	0	36
Easement	189	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	63	0	0	0	0
Not Previously Mitigated	4,434	36	0	0	36
Mifflin Township					
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
GRAND TOTAL	5,521	677	0	0	677

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Alternative NA-F Noise Exposure Contours

Columbus	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Mifflin Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
GRAND TOTAL	5,250	573	0	0	573

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Alternative NA-G Noise Exposure Contours

Columbus	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Mitigated					
Sound Insulated	367	31	0	0	31
Easement	342	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	61	0	0	0	0
Not Previously Mitigated	4,758	251	0	0	251
Mifflin Township					
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
GRAND TOTAL	5,588	700	0	0	700

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Alternative NA-H Noise Exposure Contours

Columbus	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Mitigated					
Sound Insulated	367	31	0	0	31
Easement	342	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	61	0	0	0	0
Not Previously Mitigated	4,758	251	0	0	251
Mifflin Township					
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
GRAND TOTAL	5,588	700	0	0	700

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Alternative NA-I Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	367	301	0	0	301
Easement	271	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,724	261	0	0	261
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	34	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	18	0	0	0	0
GRAND TOTAL	5,479	700	0	0	700

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Alternative NA-J Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	367	301	0	0	301
Easement	271	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,724	261	0	0	261
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	34	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	18	0	0	0	0
GRAND TOTAL	5,491	700	0	0	700

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Alternative NA-K Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	367	301	0	0	301
Easement	337	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,758	261	0	0	261
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	33	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
GRAND TOTAL	5,589	700	0	0	700

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Alternative NA-R Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	434	224	0	0	224
Easement	472	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,727	140	0	0	140
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	12	2	0	0	2
Gahanna					
Mitigated					
Sound Insulated	3	1	0	0	1
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	33	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	4	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	23	0	0	0	0
GRAND TOTAL	5,465	488	0	0	488

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Alternative NA-U Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	301	25*	0	0	25*
Easement	95	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	4,456	0	0	0	0
Mifflin Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	34	0	0	0	0
GRAND TOTAL	4,716	617	0	0	617

* East Mount Olivet Baptist Church is located in the 65 DNL noise contour

Alternative NA-V Noise Exposure Contours

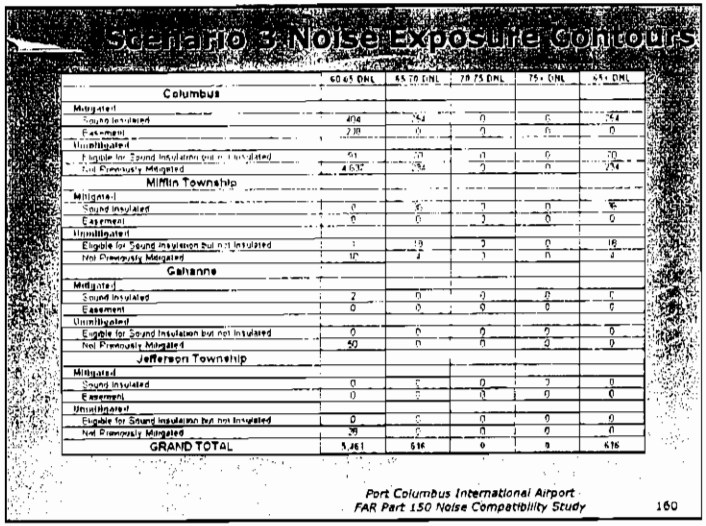
	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	95	277	0	0	277
Easement	236	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	67	78	0	0	78
Not Previously Mitigated	4,206	275	0	0	275
Mifflin Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	4	0	0	4
Gahanna					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	50	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	39	0	0	0	0
GRAND TOTAL	5,518	630	0	0	630

Scenario 1 Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	824	212	0	0	212
Easement	307	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,172	138	0	0	138
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna					
Mitigated					
Sound Insulated	4	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	141	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	45	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	55	0	0	0	0
GRAND TOTAL	5,137	472	0	0	472

Scenario 2 Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	286	212	0	0	212
Easement	141	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	94	67	0	0	67
Not Previously Mitigated	4,172	138	0	0	138
Mifflin Township					
Mitigated					
Sound Insulated	0	96	0	0	96
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna					
Mitigated					
Sound Insulated	4	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	148	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	36	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	36	0	0	0	0
GRAND TOTAL	5,135	472	0	0	472



Scenario 3 Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	404	264	0	0	264
Easement	238	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	61	70	0	0	70
Not Previously Mitigated	4,632	284	0	0	284
Mifflin Township					
Mitigated					
Sound Insulated	0	95	0	0	95
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	10	3	0	0	3
Gahanna					
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	50	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	39	0	0	0	0
GRAND TOTAL	5,461	516	0	0	516

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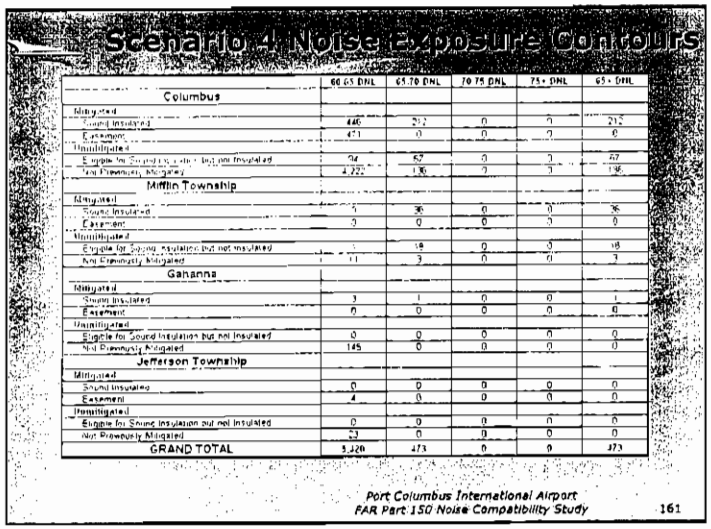

Scenario 4 Noise Exposure Contours

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Columbus					
Mitigated					
Sound Insulated	446	212	0	0	212
Easement	471	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	74	67	0	0	67
Not Previously Mitigated	4,222	136	0	0	136
Mifflin Township					
Mitigated					
Sound Insulated	1	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	3	0	0	3
Gahanna					
Mitigated					
Sound Insulated	3	1	0	0	1
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	145	0	0	0	0
Jefferson Township					
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	4	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	21	0	0	0	0
GRAND TOTAL	5,320	473	0	0	473

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study

161

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

May 29, 2007

Name
Title
Company
Address
City, State Zip

RE: Port Columbus International Airport
Part 150 Noise Compatibility Study Update
Planning Advisory Committee

Dear «Title» «Last_Name»:

Enclosed are minutes for the April 24, 2007 Study Advisory Committee (SAC) and Planning Advisory Committee (PAC) meetings for the Port Columbus International Airport Environmental Impact Statement (EIS) and Part 150 Noise Compatibility Study Update (Part 150). For those who did not attend, the PAC meeting handout is also enclosed.

The next meeting of the **Planning Advisory Committee** for the Port Columbus International Airport Part 150 Noise Compatibility Study Update will be held on:

Tuesday, June 27, 2007, 1:00 p.m. – 3:00 p.m.
Concourse Hotel and Conference Center
Meeting Room: Stapleton Room
4300 International Gateway
Columbus, OH 43219

The Concourse Hotel is located immediately adjacent to Port Columbus International Airport. Free parking is provided adjacent to the hotel. The meeting will end promptly at 3:00 p.m. An agenda for the meeting is enclosed with this letter.

As always, we appreciate your interest in Port Columbus International Airport and your participation in these studies. Please let us know if you are able to attend the June 27th meeting by responding to Melanie DePoy of Aerofinity, Inc, by Monday, June 18, 2007. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
Columbus Regional Airport Authority

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51 S. New Jersey St., 2nd Floor
Indianapolis, IN 46204
317.955.8395 317.955.8479 FAX

MEETING MEMO

MEETING	Port Columbus International Airport FAR Part 150 Noise Compatibility Study Planning Advisory Committee – Meeting 4
MEETING DATE	April 24, 2007

ATTENDING

A meeting attendance list is attached.

DISCUSSION SUMMARY

Rob Adams, Project Manager, from Landrum & Brown, the firm that is conducting the Part 150 Noise Compatibility Study (Part 150) on behalf of the Columbus Regional Airport Authority (CRAA) opened the meeting by thanking the meeting participants for their attendance. Mr. Adams reviewed the day's agenda and the study schedule. Mr. Adams stated that the purpose for today's meeting was to present preliminary recommendations on the noise abatement alternatives that had been presented to the PAC at the previous meeting and to introduce the land use management alternatives that are being considered. He reviewed the meeting agenda and the study schedule. He noted that the Part 150 is being conducted by the CRAA as a concurrent study to the Environmental Impact Statement (EIS) that is being conducted by the Federal Aviation Administration (FAA) on the CRAA's proposed development program. The development program being proposed by the CRAA is being used as the future baseline for the Part 150. However, if during the EIS another, more viable alternative is identified, the Part 150 will stop or be reopened to review this alternative.

Mr. Adams reviewed the study schedule noting that there is one more PAC meeting and one more public workshop that are scheduled as part of the Part 150 study. These are anticipated to be held in the summer of 2007. Following completion of these meetings, the Part 150 will be submitted to the FAA for review. FAA approval of the Part 150 is anticipated in May 2008.

Existing and Future Baseline Noise Exposure Maps

Sarah Potter of Landrum & Brown reviewed the existing and future baseline noise contours. These contours had previously been presented to the PAC. She reminded the PAC that the FAA's guideline for significant noise impact is the 65 DNL noise contour. The 60 DNL is typically used for planning purposes, but is not included in programming. She noted that the major difference in the existing and future baseline

noise contours is the 702 foot shift of Runway 10R/28L to the south. Accordingly, the future baseline contour is the same shape as the existing baseline but increases in size on the south side. She further noted that both the existing and future baseline noise contours are thinner to the east reflecting the fact that arrivals at CMH are primarily from the east with departures to the west.

Ms. Potter then reviewed the number of housing units and the population anticipated to be significantly impacted. She noted that the future baseline, with the relocated runway includes 700 homes. All alternatives will be compared to the baseline of 700 homes. She noted that the evaluation criteria for the review of the preliminary noise contours include:

- Safety – determining if the procedure can be flown safely
- Feasibility – determining if the alternative is capable of being flown
- Operational impacts – does the procedure increase delays, or conflict with other airports
- Noise impacts compared to the 2012 baseline – does the procedure reduce the size of the 65 DNL noise contour or shift the noise to a different area

She then reviewed the alternatives under consideration noting that these had been previously reviewed with the PAC at the March 13, 2007 meeting:

- Divergent turns: the FAA has requested that divergent turns be considered to increase capacity and reduce delay during peak periods. Divergent turns are turns of at least 15 degrees from the typical departure path that allow aircraft to depart sooner. One alternative, a divergent turn off of Runway 28R will be carried forward for further review.
- Runway preferences: wind direction dictates the direction used for arrivals and departures. Other factors are gate location and final destination. Runway preferences are being considered to assign aircraft to use a specific runway and east or west flow to reduce the number of noise impacts. The intent of these alternatives is to take advantage of more compatible land on the east side of the airport. One alternative, which renews efforts to maximize east flow will be carried forward for further review.
- Flight track locations: aircraft currently fly a runway heading until reaching 5 miles from CMH or 3,500 feet MSL before turning on their departure corridor. Flight track alternatives are being considered to determine if there is a more compatible "corridor" that the aircraft can fly over on departure in order to reduce the number of residents significantly impacted. Three alternatives for alternative flight track departure corridors have been studied. None of the alternatives is being recommended for further review as they result in a shift of the noise impacts from one area to another rather than reducing the number of homes significantly impacted.
- Nighttime noise: noise that occurs at night is generally more disruptive to residents. Nighttime procedures would be in effect from 10:00 p.m. to 7:00 a.m. Three alternatives, detailed in the meeting handout are being carried for further review as they may be combined with other procedures to reduce overall noise impacts.
- Flight management: includes procedures that may be performed by the pilot in the cockpit to reduce noise. Three flight management alternatives have been studied; two of these will be carried forward for more detailed review.
- Ground noise policies/controls: the CRAA currently has a nighttime ground run-up policy in place. There are three existing noise barriers for engine maintenance. Alternatives to evaluate the current run-up policy and the location/material and size or the existing barriers have been considered. It has been determined that one of the existing run-up barriers may need to be upgraded and relocated to accommodate anticipated operations. Construction of a noise berm or wall in the area of Thirteenth Avenue is being further studied.

Ms. Potter reviewed each alternative that is being considered and detailed the benefits and drawbacks of each alternative, including a review of the number of homes impacted as well as the number of homes impacted due to a "shift" of the noise impacts. Details of the noise abatement alternatives were included in the meeting handout.

Noise Abatement Alternative Scenarios

Ms. Potter then explained that the noise abatement alternatives have been evaluated to determine if there is some combination, or scenario of several alternatives used in combination with one another that would result in a decrease in the number of homes significantly impacted. She reviewed four scenarios that have been evaluated using the same criteria that had been previously described to evaluate the individual alternatives. She further explained that it would not be feasible to use all of the alternatives at the same time. Ms. Potter reviewed the benefits and drawbacks of each of the noise abatement scenarios. Details of the scenarios are included in the meeting handout.

Land Use Management Alternatives

When the analysis of noise abatement alternatives is complete, noise conditions are reviewed to determine where incompatible land uses still exist and to determine if there are land use measures that could be implemented to further reduce the number of significantly impacted incompatible land uses. Land use management measures generally fall into two categories: preventive and corrective. A list of the preventive measures was reviewed at the meeting but generally include actions such as zoning and other measures that prevent incompatible land uses from being constructed in areas known to be significantly noise impacted. Corrective measures include actions that either remove incompatible land uses from significantly impacted areas, or provide measures to reduce the noise impacts. In the past, the CRAA has implemented a sound insulation program as a corrective measure.

Mr. Adams reviewed the land use measures that are currently approved as part of the CRAA's noise compatibility program, gave a status on the progress of the implementation of the measure and stated which measures would be recommended to be carried forward as part of this Part 150 Update. Mr. Adams noted that additional review of land use measures would be continued as the study progresses.

Program Management Measures

Mr. Adams explained that the CRAA's current noise compatibility program includes certain measures intended to assist the program as a whole. Program management measures include the ATCT Tower Order that allows the air traffic controllers to implement the NCP measures, public involvement and tools needed to support public involvement including the flight track monitoring system, and requirements for regularly updating the noise compatibility program.

Next Steps

Mr. Adams reminded PAC participants that public workshops were to be held on April 24th and April 25th. The April 24th location has been changed to the Oakland Park at Brentnell Elementary School in order to encourage greater public participation in the study process. The April 25th meeting will be held at the Whitehall Community Park Activities Center. The consulting team will continue to evaluate the alternatives. Mr. Adams asked that the PAC submit any questions on the working papers to him by May 8th.

The next PAC meeting and public workshops will be held in the summer of 2007.

Questions and Comments

A question was asked about whether the potential change in procedures to a preferential east flow would shift noise from other areas, the Gahanna area.

Mr. Adams responded that this operating procedure did have the potential to "shift" noise from one area to another. However, overall, there would be a significant reduction in the number of impacted residents from this procedure.

A comment was made that the commercial business should be considered significantly impacted by noise if located within the 65 DNL noise exposure contours.

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Planning Advisory Committee Meeting #5
June 27, 2007

Letter of Invite
Registration
Presentation
Summary Meeting Notes

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

May 29, 2007

Name
Title
Company
Address
City, State Zip

RE: Port Columbus International Airport
Part 150 Noise Compatibility Study Update
Planning Advisory Committee

Dear «Title» «Last_Name»:

Enclosed are minutes for the April 24, 2007 Study Advisory Committee (SAC) and Planning Advisory Committee (PAC) meetings for the Port Columbus International Airport Environmental Impact Statement (EIS) and Part 150 Noise Compatibility Study Update (Part 150). For those who did not attend, the PAC meeting handout is also enclosed.

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Concourse Hotel and Conference Center
Meeting Room: Stapleton Room
4300 International Gateway
Columbus, OH 43219

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As always, we appreciate your interest in Port Columbus International Airport and your participation in these studies. Please let us know if you are able to attend the June 27th meeting by responding to Melanie DePoy of Aerofinity, Inc, by Monday, June 18, 2007. Melanie may be reached by phone at (317) 955-8395 ext. 304 or e-mail at mdepoy@aerofinity.com.

Sincerely,

Elaine Roberts

Elaine Roberts, A.A.E.
President & CEO
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PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY UPDATE

Columbus Regional Airport Authority
PLANNING ADVISORY COMMITTEE

June 27, 2007
1:00 p.m. to 3:00 p.m.
Concourse Hotel and Conference Center

AGENDA

WELCOME

I. Where are we in the Part 150 Process?

II. How the Part 150 fits into the EIS Process

III. Part 150 Schedule

IV. Recommended NCP

V. Comments on Alternatives

VI. Next Steps

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200 South Hamilton
Gahanna, OH 43230

Mrs. Lynn Ochsendorf, Mayor
City of Whitehall
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Whitehall, OH 43213

Mr. Kevin Costello
JetBlue Airways
118-29 Queens Blvd.
Forest Hills, NY 11375

Mr. Vince Papsidero, Planning Administrator
City of Columbus
109 N. Front Street, Ground Floor
Columbus, OH 43215

Port Columbus International Airport
FAR Part 150 Noise Compatibility Study
Planning Advisory Committee Attendance
Wednesday, June 27, 2007

Name	Representing/Title	Address	Phone/E-mail
John A. Brandt	City of Reynoldsburg Development Director	7232 E. Main Street Reynoldsburg, OH 43068	(614) 322-6807 jbrandt@ci.reynoldsburg.oh.us
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Columbus Regional Airport Authority Staff			
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Bernie Meleski	Director, Planning & Development		(614) 239-4042
Dave Wall	Capital Program Manager		(614) 239-4063
Consulting Team			
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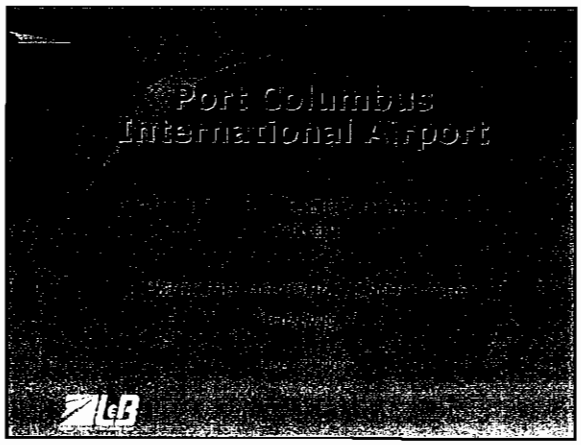
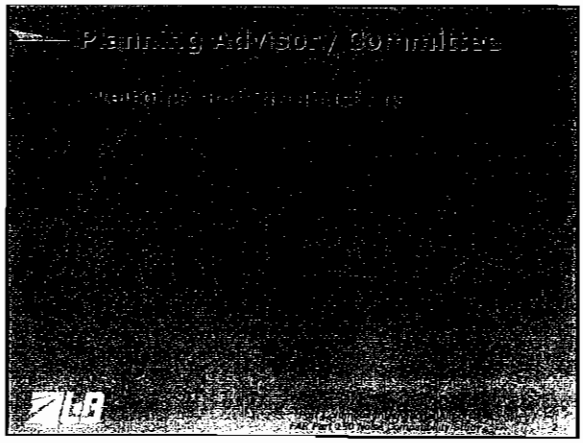
Dave Fleet	Aerofinity, Inc.	51 S. New Jersey Street Indianapolis, IN 46204	(317) 955-8395 Ext. 307
Stacy Pollert			(317) 955-8395 Ext. 306

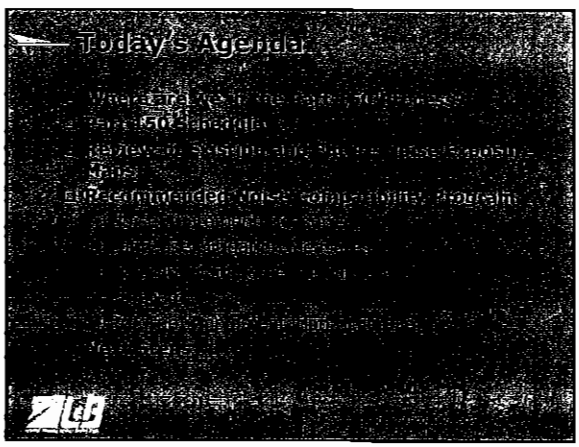
Port Columbus International Airport



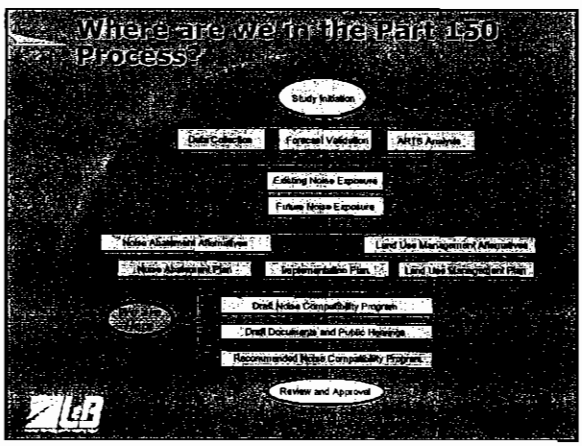
Planning Advisory Committee

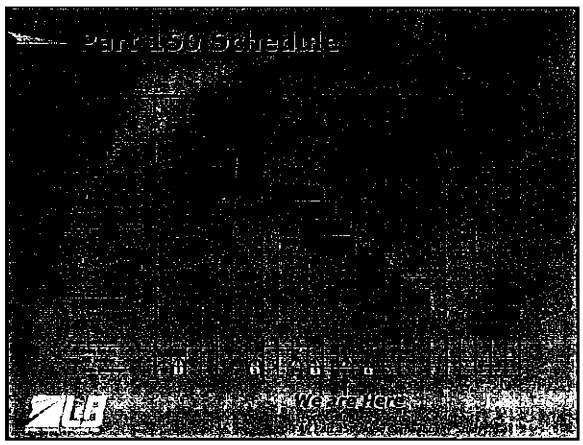


Today's Agenda

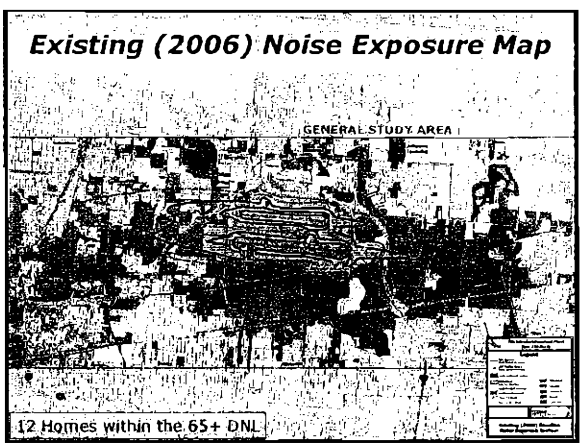


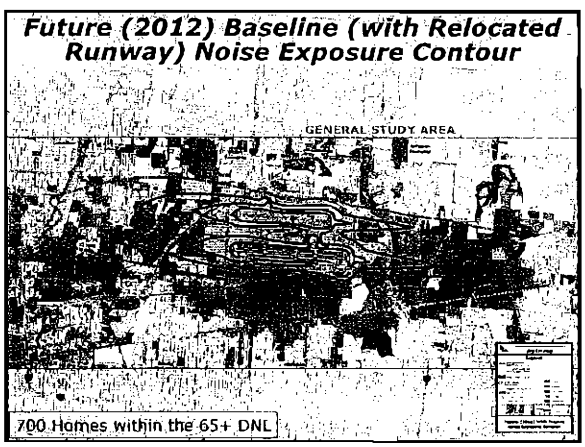
Where are we in the Part 150 Process?




Part 150 Schedule
We are Here

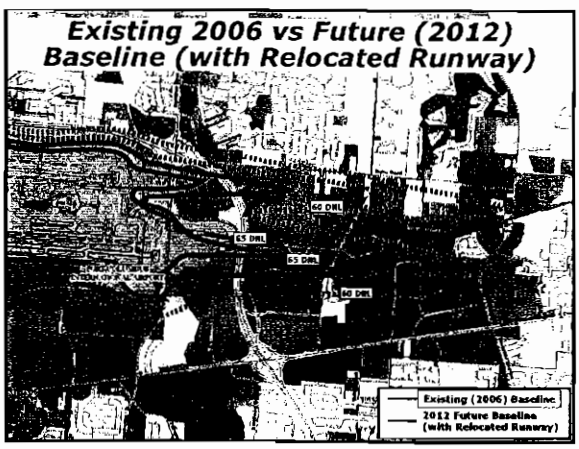

Planning Advisory Committee

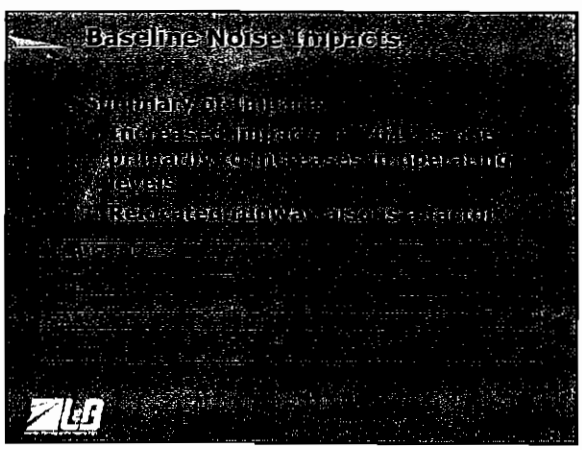

Existing (2006) Noise Exposure Map
GENERAL STUDY AREA
12 Homes within the 65+ DNL


Future (2012) Baseline (with Relocated Runway) Noise Exposure Contour
GENERAL STUDY AREA
700 Homes within the 65+ DNL

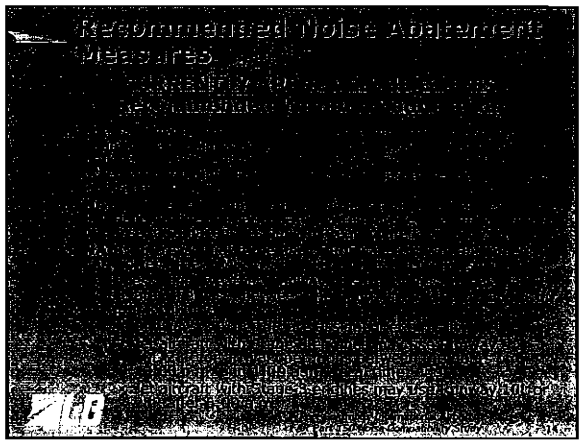

Existing 2006 vs Future (2012) Baseline (with Relocated Runway)
GENERAL STUDY AREA
Existing (2006) Baseline
2012 Future Baseline (with Relocated Runway)

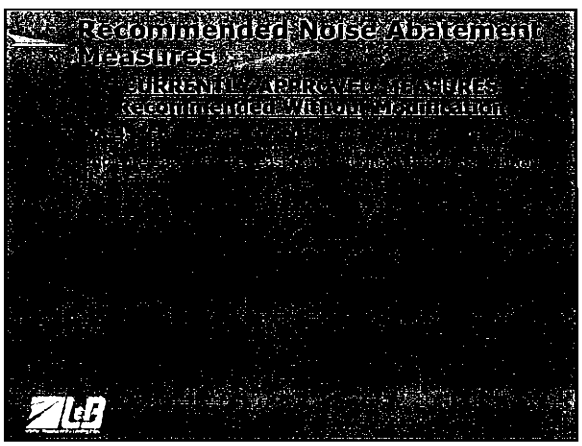

Existing 2006 vs Future (2012) Baseline (with Relocated Runway)
Existing (2006) Baseline
2012 Future Baseline (with Relocated Runway)

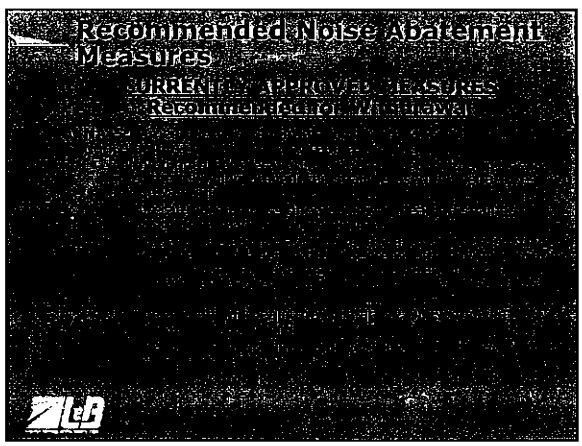

Existing 2006 vs Future (2012) Baseline (with Relocated Runway)
65 DNL
55 DNL
60 DNL
Existing (2006) Baseline
2012 Future Baseline (with Relocated Runway)

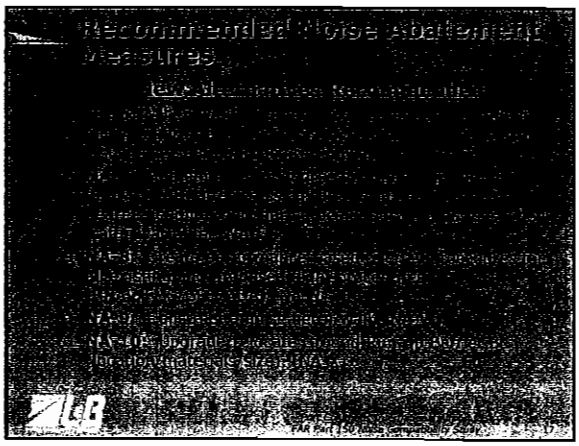

Baseline Noise Impacts


Planning Advisory Committee

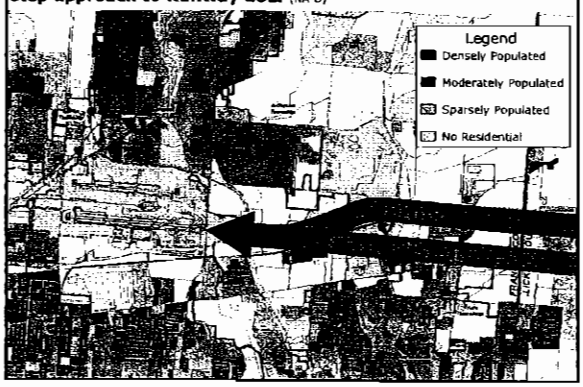

Recommended Noise Abatement Measures


Recommended Noise Abatement Measures
CURRENTLY APPROVED MEASURES
Recommended Without Modification

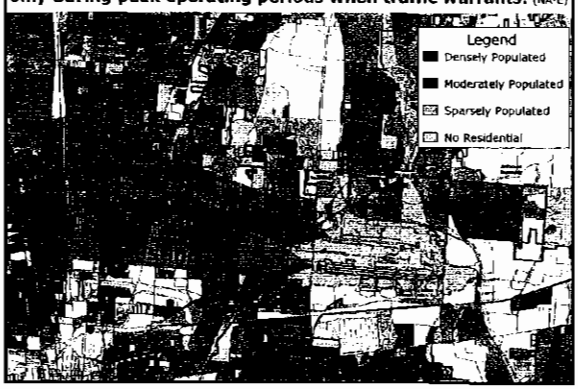

Recommended Noise Abatement Measures
CURRENTLY APPROVED MEASURES



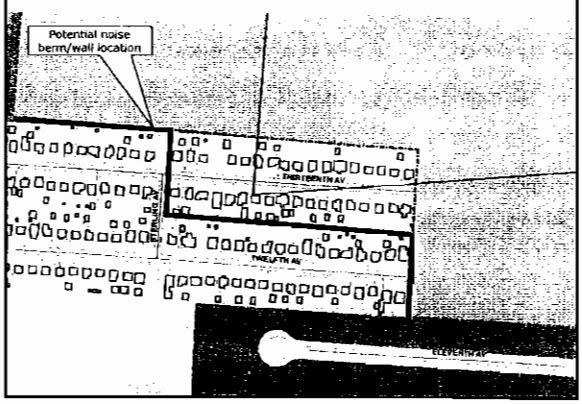
NA-6: When wind, weather, and operational conditions allow, nighttime (10:00 p.m. to 7:00 a.m.) arrivals use visual side step approach to Runway 28L. (NA-D)

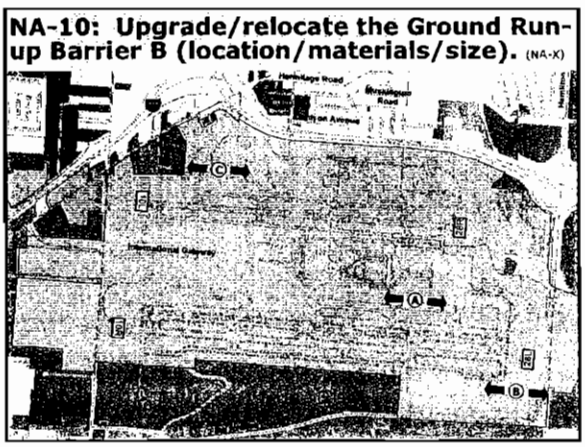


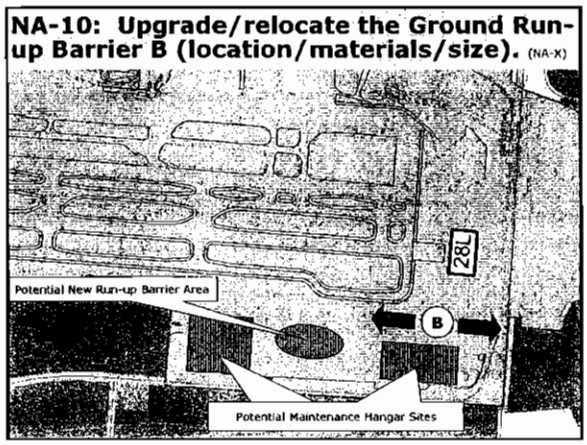
NA-7: Implement a 15 degree divergent turn off of Runway 28R, after crossing the runway end to a 295 degree heading, only during peak operating periods when traffic warrants. (NA-E)

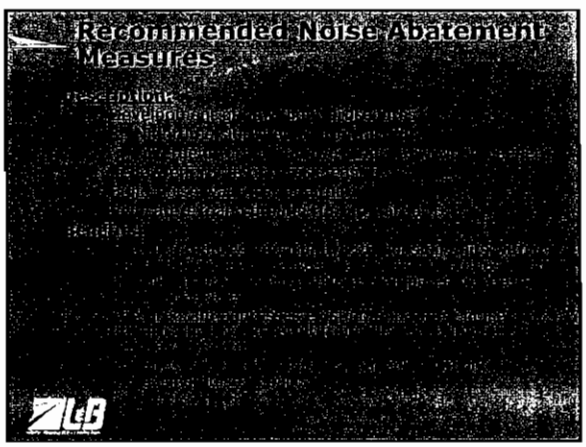


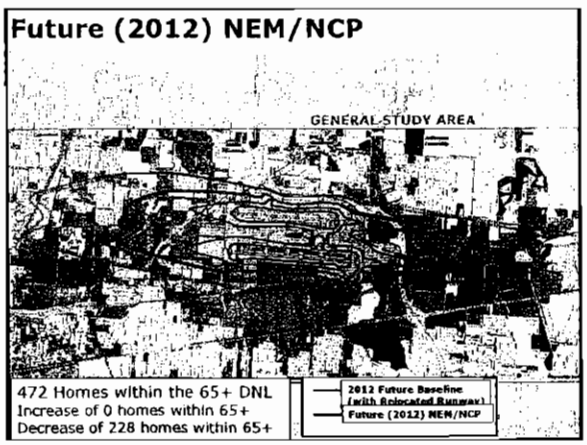
NA-9: Construct a noise berm/wall (NA-W)

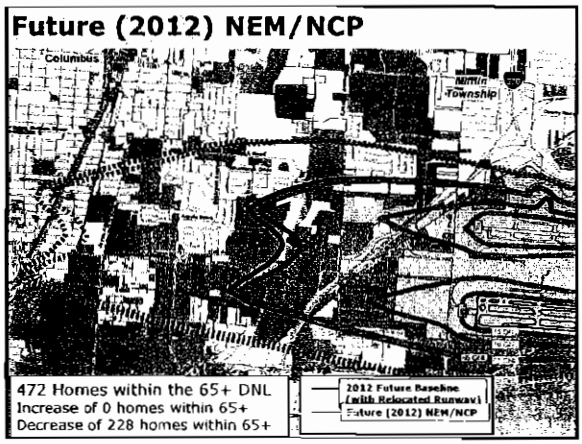


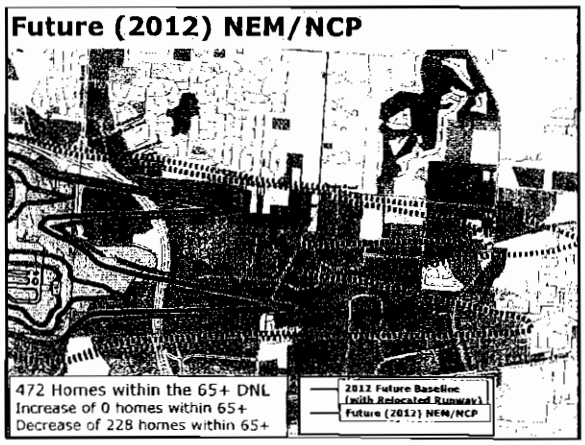

NA-10: Upgrade/relocate the Ground Run-up Barrier B (location/materials/size). (NA-X)


NA-10: Upgrade/relocate the Ground Run-up Barrier B (location/materials/size). (NA-X)
28L
Potential New Run-up Barrier Area
B
Potential Maintenance Hangar Sites


Recommended Noise Abatement Measures


Future (2012) NEM/NCP
GENERAL STUDY AREA
472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+
2012 Future Baseline (with Relocated Runway)
Future (2012) NEM/NCP

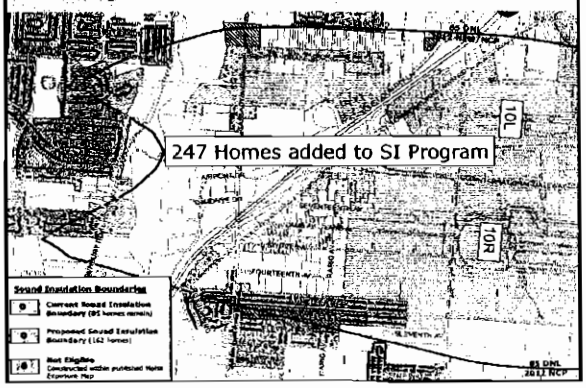

Future (2012) NEM/NCP
Columbus
Nimitz Township
472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+
2012 Future Baseline (with Relocated Runway)
Future (2012) NEM/NCP


Future (2012) NEM/NCP
472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+
2012 Future Baseline (with Relocated Runway)
Future (2012) NEM/NCP

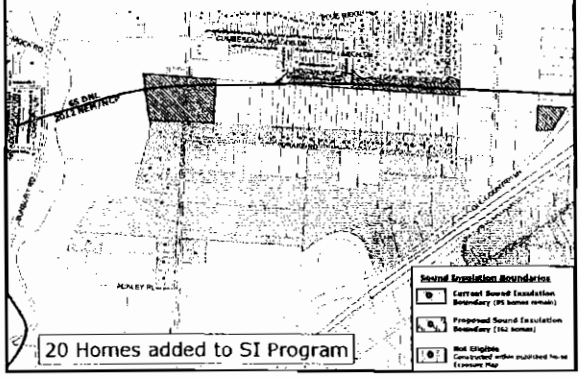

Planning Advisory Committee


Recommended Land Use Measures

LU-1: Proposed Expansion of Sound Insulation Boundary



LU-1: Proposed Expansion of Sound Insulation Boundary



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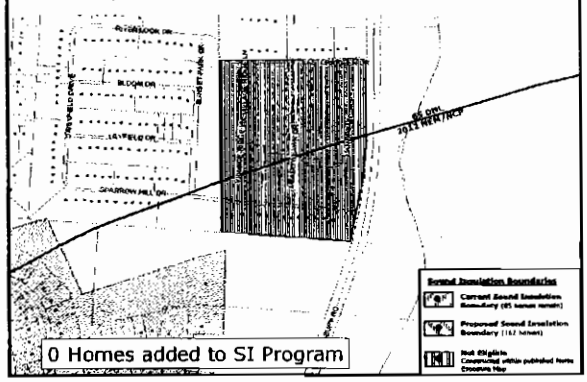
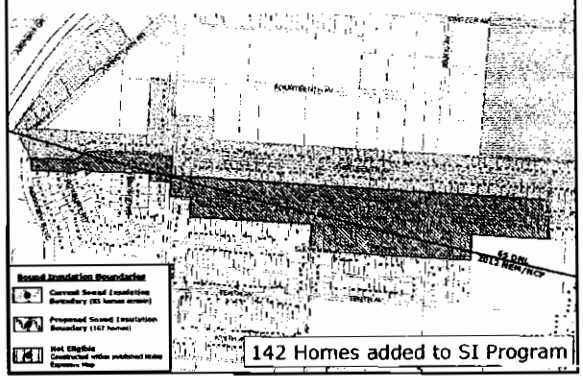
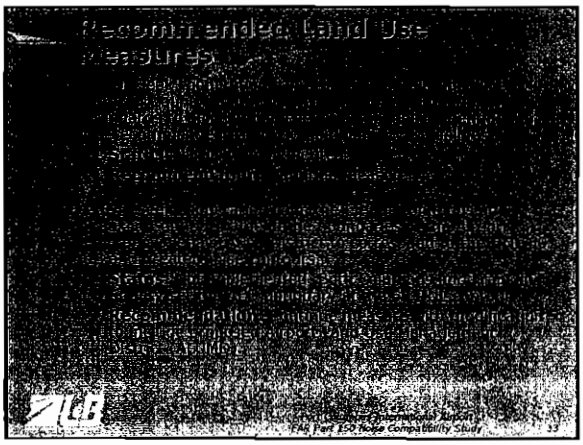
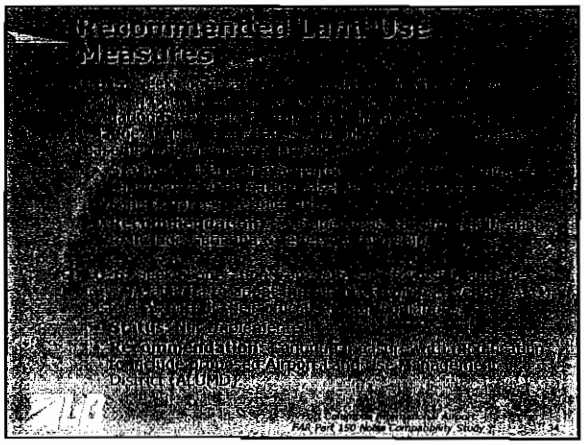


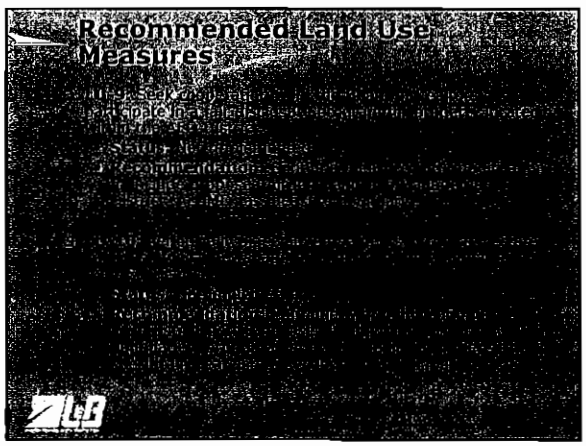
LU-1: Proposed Expansion of Sound Insulation Boundary



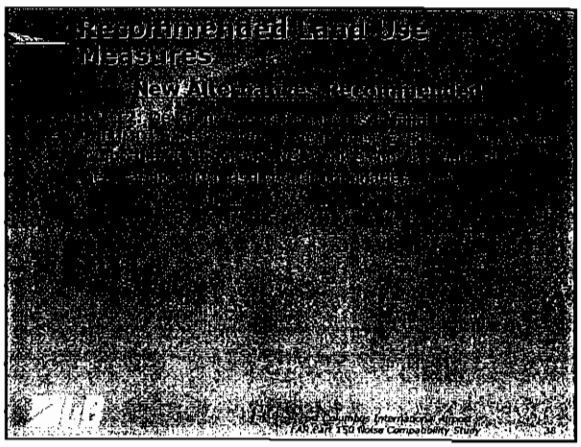

Recommended Land Use Measures

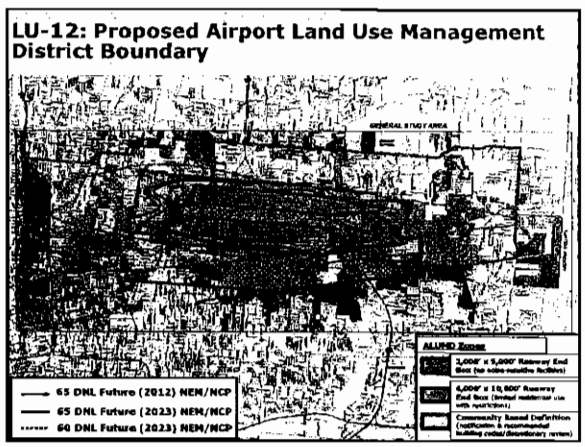

Recommended Land Use Measures

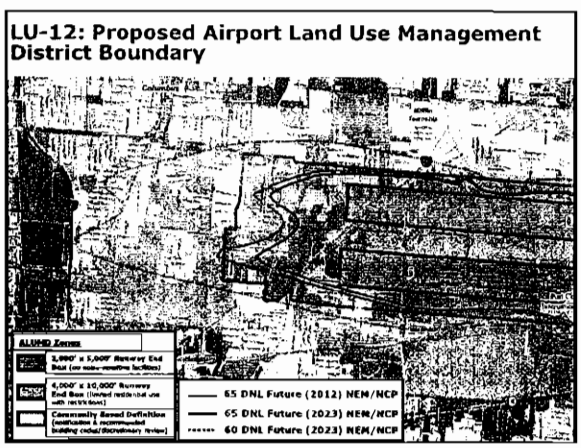

Recommended Land Use Measures


Recommended Land Use Measures

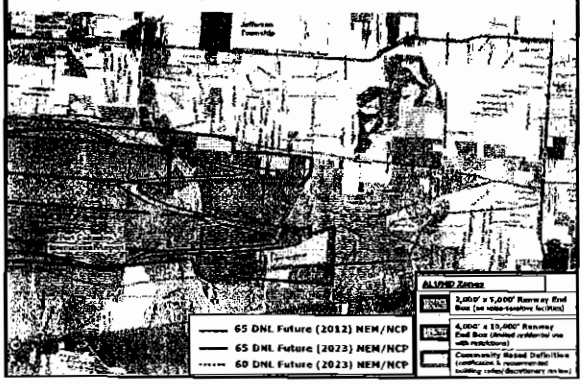

Recommended Land Use Measures


Recommended Land Use Measures


LU-12: Proposed Airport Land Use Management District Boundary
65 DNL Future (2012) NEM/NCP
65 DNL Future (2023) NEM/NCP
60 DNL Future (2023) NEM/NCP


LU-12: Proposed Airport Land Use Management District Boundary
65 DNL Future (2012) NEM/NCP
65 DNL Future (2023) NEM/NCP
60 DNL Future (2023) NEM/NCP

LU-12: Proposed Airport Land Use Management District Boundary



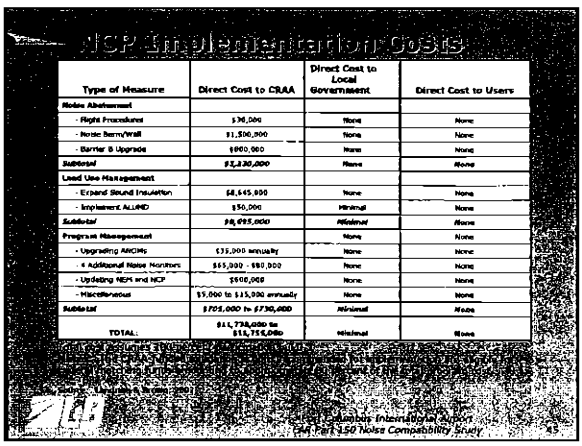
Planning Advisory Committee

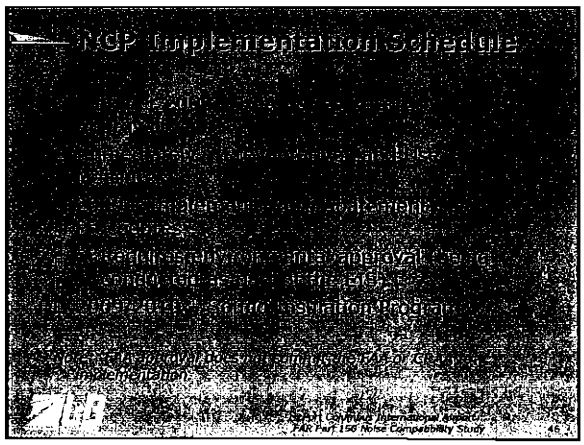
Recommended Program Management Measures

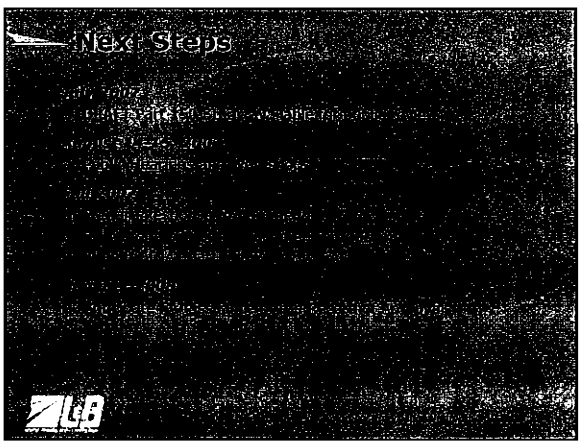
Program Management Measures to be Continued Without Modification

Recommended Program Management Measures

Program Management Measures to be Continued Without Modification


NCP Implementation Costs
Type of Measure
Direct Cost to CRAA
Direct Cost to Local Government
Direct Cost to Users
Noise Abatement
- Flight Procedures
$30,000
None
None
- Noise Berm/Wall
$1,500,000
None
None
- Barrier B Upgrade
$900,000
None
None
Subtotal
$2,430,000
None
None
Land Use Management
- Expand Sound Insulation
$8,645,000
None
None
- Implement ALUMD
$50,000
Minimal
None
Subtotal
$8,695,000
Minimal
None
Program Management
- Upgrading ANOMs
$35,000 annually
None
None
- 4 Additional Noise Monitors
$65,000 - $80,000
None
None
- Updating NEM and NCP
$600,000
None
None
- Miscellaneous
$5,000 to $15,000 annually
None
None
Subtotal
$705,000 to $730,000
Minimal
None
TOTAL:
$11,738,000 to $11,755,000
Minimal
None
FAR Part 150 Noise Compatibility Study
45


NCP Implementation Schedule
FAR Part 150 Noise Compatibility Study
46


Next Steps

51 S. New Jersey St., 2nd Floor
Indianapolis, IN 46204
317.955.8395 317.955.8479 FAX

MEETING MEMO

MEETING	Port Columbus International Airport FAR Part 150 Noise Compatibility Study Planning Advisory Committee – Meeting 5
MEETING DATE	June 27, 2007

ATTENDING

A meeting attendance list is attached.

DISCUSSION SUMMARY

Dave Wall, Capital Program Manager for the Columbus Regional Airport Authority (CRAA), opened the meeting by welcoming participants and thanking them for their participation. Rob Adams, Project Manager, from Landrum & Brown, the firm that is conducting the Part 150 Noise Compatibility Study (Part 150) on behalf of the CRAA reviewed the day's agenda and the study schedule. Mr. Adams stated that the goal for today's meeting was to review recommendations of the Noise Compatibility Program (NCP). He noted that the Part 150 is being conducted by the CRAA as a concurrent study to the Environmental Impact Statement (EIS) that is being conducted by the Federal Aviation Administration (FAA) on the CRAA's proposed development program.

Mr. Adams reviewed the study schedule noting that the next major milestones are publication of the draft document within the next few weeks and the final public workshop/hearing scheduled for the second week of August 2007. He noted that this is the final Planning Advisory Committee (PAC) meeting. Following completion of these meetings, the Part 150 will be submitted to the FAA for review. FAA approval of the Part 150 is anticipated in May 2008.

Existing and Future Baseline Noise Exposure Maps

Mr. Adams reviewed the existing and future baseline noise contours noting there have been no changes to these contours since they were previously presented to the PAC. He reminded the PAC that the FAA's guideline for significant noise impact is the 65 DNL noise contour. The 60 DNL is typically used for planning purposes, but is not included in programming. He noted that the major difference in the existing and future baseline noise contours is the 702 foot shift of Runway 10R/28L to the south. Accordingly, the future baseline contour is the same shape as the existing baseline but increases in size on the south side.

He further noted that both the existing and future baseline noise contours are thinner to the east reflecting the fact that arrivals at CMH are primarily from the east with departures to the west.

Mr. Adams then reviewed the number of housing units and the population anticipated to be significantly impacted. He explained that currently 12 homes are within the 65+ DNL existing noise contours, but these homes have already been sound insulated in the Airports Noise Program. He noted that the future baseline for 2012, with the relocated runway, shows a total of 700 homes within the 65+ DNL. The increased impacts are due primarily to increases in operating levels expected with normal growth at the airport. The relocated runway is also a factor.

Noise Abatement Measures

He then reviewed the recommended Noise Abatement Measures under consideration noting that these had been previously reviewed with the PAC at the April 24, 2007 meeting:

Currently Approved Measures Recommended Without Modification

- NA-1: Amend the Run-Up Policy to designate a new run-up location such that EJA's new building will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.
- NA-2: Construct a new run-up barrier at the north airfield.
- NA-3: Increase nighttime use of Runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1.
- NA-4: Maximize east flow and amend FAA Tower order CMH ATCT 7110.1b.

Currently Approved Measures Recommended for Withdrawl

- NA-5: This measure deals with smaller propeller driven aircraft, specifically AirNet Operation. Since AirNet has relocated to Rickenbacker this issue is no longer relevant.

New Alternatives Recommended

- NA-6: When wind, weather, and operational conditions allow, nighttime (10:00 p.m. to 7:00 a.m.) arrivals use visual side step approach to Runway 28L.
- NA-7: Implement a 15 degree divergent turn off of Runway 28R, after crossing the runway end to a 295 degree heading, only during peak operating periods when traffic warrants.
- NA-8: Create performance-based overlay procedures for all existing and proposed flight procedures. In simple terms, there are many new technologies that may be available to guide aircraft for other reasons than noise, but may benefit the impact of noise. The CRAA is interested in looking into the best technology for noise implementation.
- NA-9: Construct a noise berm/wall.
- NA-10: Upgrade/relocate Ground Run-up Barrier B (location/materials/size). Barrier B is the southern most barrier on the Airport.

Mr. Adams reviewed each alternative and detailed the benefits and drawbacks, including a review of the number of homes impacted as well as the number of homes impacted due to a "shift" of the noise impacts. Details of the noise abatement alternatives are included in the meeting handout.

Land Use Mitigation Measures

There are two categories under Land Use Mitigation. Preventive measures discourage the introduction of noise sensitive uses through land use measures. The second is corrective; these actions address noise sensitive land uses already in place.

Recommended Land Use Measures

- LU-1: This is a continuation of an on-going program for noise insulation of noncompatible structures for noncompatible residences within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map with program implementation in exchange for an avigation easement. The recommendation is to continue with this measure while modifying the boundary based upon Future (2012) NCP. An additional 247 housing units would be eligible for sound insulation.
- LU-2: Offer a program for noise insulation of noncompatible structures for noncompatible churches within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map, with program implementation in exchange for an avigation easement. Currently this measure is implemented as there are no churches located within the Future (2012) NCP. It is recommended to continue this measure, with no action at this time.
- LU-3: Partially implemented measure which seeks cooperation from the City of Columbus and Franklin County to amend their Land Use Compatibility Standards to achieve the level of compatibility identified in the recommended Land Use Compatibility Guidelines.
- LU-4: Currently Columbus and Franklin County set the Airport Environs Overlay (AEO) boundary at the 65 DNL contour. This measure seeks cooperation from both parties to amend the boundaries of the AEO District to correspond to the DNL 60 dB and greater noise contours.
- LU-5: This measure seeks cooperation from Franklin County to amend the Franklin County Zoning Resolution, Section 660.07, Avigation Easement, to require applicants for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport. The recommendation is to continue this measure with modification to include Gahanna & Jefferson Township.
- LU-6: Seek cooperation from Jefferson Township and the City of Gahanna to adopt the Airport Environs Overlay (AEO) District as part of their official zoning regulations.
- LU-7: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the Airport Environs Overlay (AEO) District.
- LU-8: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the Airport Environs Overlay (AEO) District.
- LU-9: Seek cooperation from the Board of Realtors to participate in a voluntary fair disclosure program for property located within the AEO District.
- LU-10: Periodically place advertisements in the real estate sections of local newspapers delineating the boundaries of the AEO District with modifications to advertise the Airport Land Use Management District (ALUMD) boundaries through a variety of media, not specifically real estate sections of newspapers.
- LU-11: It is recommended that this measure, which is to purchase the Buckles property to prevent imminent noncompatible development from occurring, be withdrawn since this is currently taking place.

It is recommended on LU-4, LU-6, LU-7, LU-8 and LU-9 to continue these measures with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary.

New Land Use Measure Recommended

- LU-12: Develop an Airport Land Use Management District (ALUMD) based on the 20-year Noise Exposure Map/Noise Compatibility Program (NCP) noise contour, natural geographic and jurisdictional boundaries. This is based on 2023 because it is the farthest contour in time.

Program Management Measures

Mr. Adams reviewed the current Program Management Measures that are being recommended to be continued without modification. These measures are to assist the Airport staff in managing the program. The measures include:

- PM-1: Maintain the noise abatement elements of the FAA ATCT Tower Order.
- PM-2: Maintain the Noise Management Office for noise compatibility program management.
- PM-3: Maintain an ongoing public involvement program regarding the noise compatibility program.
- PM-5: Routinely update the noise contours and periodically update the noise program.
- PM-6: Establish a land use compatibility task force which meets periodically to discuss issues relevant to airport noise compatibility planning.

PM-4 is a measure to be continued with modification. The purpose of this measure is to maintain the noise and flight track monitoring system, and expand and upgrade the system as necessary. Add four permanent NMTs and upgrade the computer software and hardware as necessary. Costs would be $65,000 to $80,000 for all four monitors.

NCP Implementation Costs and Schedule

The summary of costs for the implementation of the anticipated program was reviewed. The overall direct cost to CRAA is between $11,730,000 and $11,755,000 with minimal direct cost to the local government. It is anticipated that the FAA will issue the Record of Approval during the Summer of 2008. Implementation of the preventive Land Use Measures will begin. In 2009, Noise Abatement Procedures will be implemented. The Sound Insulation Program will be implemented in 2009/2010.

Next Steps

The schedule listed below is the anticipated schedule for the document process:

- July 2007: DRAFT Part 150 Study available for public review
- August 14-15, 2007: Public Workshops/Hearings
- Fall 2007: Prepare Response to Comments, Final Part 150 Study document and Submit Final Part 150 Study to FAA
- Summer 2008: Anticipate FAA issuance of the Record of Approval

Mr. Adams reminded PAC participants that this is the final PAC meeting. The final public workshop/hearing for the Part 150 is to be held on August 14th and August 15th. The August 14th location is at the Oakland Park at Brentnell Elementary School. The August 15th meeting will be held at the Whitehall Community Park Activities Center. Both workshops/hearings will be held from 5:00 p.m. to 8:00 p.m. No formal presentations are planned – stop in anytime. Mr. Adams provided participants a flyer that they can give to their constituents to notify them of the upcoming public workshop/hearing.

Questions and Comments

Do the maps (noise contours) take into account larger planes? What is the affect? Noise levels aren't the same with different sizes of aircraft.

Mr. Adams responded yes, the noise contours take into account larger aircraft. As part of the study process, we review what the airlines are buying. We have looked at 2012 and some changes are occurring. The Airport can accommodate some larger aircraft, nothing limiting.

Are you taking into account increase of noise and how often? Are any studies taking place inside of homes within these neighborhoods to see how it is affecting the homeowners?

Yes, the Airport Authority has done noise studies within areas. I can't tell you if there has been any noise studies completed within a home but that is an interesting suggestion.

On NA-9, why can't you take all the homes? Why would you only take a couple? The quality of living is going down for these homeowners. Don't separate their (neighbors) partnership. In Louisville, the Airport bought a whole neighborhood and then built them a new one. .

The area is undefined of which homes would be bought or removed. That resolution will be made by the FAA and Airport Authority as part of the Environmental Impact Statement which is occurring simultaneously with the Part 150. There is a relocation package under the Relocation & Assistance Program by the Federal government which will assist the homeowners whose houses will be purchased. There will not be a new neighborhood built for these homeowners. The program in Louisville was not typical and there were factors in that case that are not present here. The primary difference in that case was that it was an entire neighborhood that was being directly affected by the action at Louisville. In this case, it is a relatively small number of homes that are located adjacent to airport property.

What about the land use side, about the developers building on this land shown on NA-9?

The purpose of the land acquisition is to comply with FAA Runway Protection Zone guidelines and construction of the new south runway. The remaining land would be maintained most likely as a grassy field. The removal of these homes is not a noise issue. The berm shown is a worst case scenario from a cost perspective to the noise study. That decision on which homes will be purchased will be made by the FAA and Airport Authority as part of the Environmental Impact Statement which is occurring simultaneously with the Part 150.

You keep piecing and piecing these neighborhoods. This will affect the quality of life for these people over time and the noise will increase and disrupt their everyday lives. What will you do with the land you are buying?

The homes will be purchased and removed. The area has to be clear and all obstructions have to be removed.

Will you put a park there?

It is unlikely that a park will be placed in this location because of potential wildlife attractants. The remaining land would be maintained most likely as a grassy field.

Will property value of land be affected?

We are not in real estate; therefore I am not sure about the actual value of the property. Once again, the FAA and Airport are still deciding on what homes and how many would be acquired.

So the studies are not going into the living environment? Our job is not to sit here and listen. We are the Advisory Committee and we are here to provide feedback. Your calculations appear to be skewed. This area needs greater attention. People will need to be kept out of this area.

In the EIS, we will look at the issue from a number of different perspectives, including social, socio-economic, and environmental justice. In the noise study, we are showing a worst case scenario in dollars. We will continue to look at these issues more specifically in the EIS.

How does the noise berm wall affect people?

The berm wall will help reduce noise from aircraft on the ground and will help reduce the noise from Stelzer Road. The berm will also be a visual barrier for the homes still facing the airfield.

This is coming at the expense of the poor people. You should develop but not at the expense of our neighborhoods. You need to look at different aspects, not only noise in the EIS. Has anyone done any independent studies in these areas to see how these people, these neighborhoods are going to be affected?

In the EIS, we will look at the issue from a number of different perspectives, including social, socio-economic, and environmental justice. In the noise study, we are showing a worst case scenario in dollars. We will continue to look at these issues more specifically in the EIS.

On LU-1, is the 65 DNL with or without the new runway?

It is with the new runway.

In regard to NA-4, I don't see where there is any monitoring (of east flow). I strongly suggest to CRAA to track the (runway) use and to report to the public and tower.

Great point. Airport does track runway use. The recommendation would tap into Federal funds to allow for more in depth study and the development of ways to increase the use of east flow.

What about public accountability (of east flow)? Will there be information provided to the public on the (runway) use? Will the airport put information on their website?

The Airport hasn't envisioned public communication. It is being monitored. If there are any interested people in the community, the Airport can display the information if requested.

5/29/07 PAC Distribution List

Ms. Katherine Jones
Federal Aviation Administration – Detroit ADO
11677 S. Wayne Road
Romulus, MI 48174

Mr. Dave Wall
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Stacey Heaton
Columbus Regional Airport Authority
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Mr. Elwood Rayford, Chair
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Mr. Chris Lenfest, Manager
FAA CMH Air Traffic Control Tower
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Mr. Don Peters
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Mr. Bruce Gibson
FAA CMH ATCT
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Columbus, OH 43219

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Executive Vice President
Net Jets
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Columbus, OH 43219

Mr. Bill Tylka
Million Air
4130 East Fifth Avenue
Columbus, OH 43219

Ms. Joni Taylor, Manager
Southwest Airlines
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

Ms. Tiffany White
North Central Area Commission
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Columbus, OH 43219

Mr. Denis Carvill
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Columbus, OH 43228

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Mr. Lee Brown
Development Department and Zoning Enforcement
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Columbus, OH 43219

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Real Estate Programs Mgr., Central Region
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Dr. Gene Harris, Superintendent
City of Columbus Schools
270 East State Street
Columbus, OH 43215

5/29/07 PAC Distribution List

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Mr. Tim Stehle, Director of Flight Operations
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Mr. Brian Kennedy, Manager
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Mr. Bill Cumbow
Airline Pilots Association
262 McKenna Creek Drive
Gahanna, OH 43230

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Mr. Mark Dooley, Manager
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Ms. Patti Froehlich, Manager
Midwest Connect/Skyway
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Sandy Dicocco, Manager
US Airways/US Airways/America West
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Columbus, OH 43219

Mr. Felix Scuilli, Manager
Delta/Delta Connection
Port Columbus International Airport
4600 International Gateway
Columbus, OH 43219

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Ohio Office of Aviation
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Columbus, OH 43219

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Columbus Regional Airport Authority
Port Columbus International Airport
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Columbus, OH 43219

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Mr. Jeff Lischak, Regional Manager
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Columbus, OH 43219

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MORPC
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Columbus, OH 43215

Mr. Charles McCroskey, Zoning Administrator
Jefferson Twp.
6545 Havens Road
Blacklick, OH 43004

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Whitehall, OH 43213

Mr. Lucas Haire, Planning Administrator
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Reynoldsburg, OH 43068

Frank Martino, General Manager
American/American Eagle
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Columbus, OH 43219

Sadicka White, Director of Development
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200 South Hamilton
Gahanna, OH 43230

Mrs. Lynn Ochsendorf, Mayor
City of Whitehall
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Whitehall, OH 43213

Mr. Kevin Costello
JetBlue Airways
118-29 Queens Blvd.
Forest Hills, NY 11375

Mr. Vince Papsidero, Planning Administrator
City of Columbus
109 N. Front Street, Ground Floor
Columbus, OH 43215

Public Information Workshop #4
August 14, 2007 & August 15, 2007

Newspaper Notice
CRAA Press Release
Postcard Mailing
Registration
Handout

THE COLUMBUS DISPATCH
PROOF OF PUBLICATION

STATE OF OHIO, FRANKLIN COUNTY. SS:

Shelly Donovan
Classified Merchandise Services Manager

The Columbus Dispatch, a newspaper published at Columbus, Franklin County, Ohio, with a daily paid circulation of over 200,000 copies, personally appeared and made oath that the notice of which a true copy is hereunto attached was published in The Columbus Dispatch for 2 Time(s) on

July 16, August 10, 2007

and that the rate charged therefore is the same as that charged for commercial advertising for like services.

Shelly Donovan

subscribed and Sworn on this 20th day of September 2007 as witness my hand and seal of office.

Veronica H. Hill

NOTARY PUBLIC - STATE OF OHIO

NOTARIAL SEAL
STATE OF OHIO

VERONICA H. HILL
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES NOVEMBER 6, 2008

Public Information Workshop/Hearing
FAR Part 150 Noise Compatibility Study
Port Columbus International Airport

The workshop/hearing will be held at:

Oakland Park at Brentnell Elementary School
1270 Brentnell Avenue
Columbus, OH
Tuesday, August 14, 2007
5 p.m. - 8 p.m.

Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH
Wednesday, August 15, 2007
5 p.m. - 8 p.m.

No formal presentations are planned – stop in anytime
No charge for parking

Draft Noise Compatibility Study documents will be available Beginning July 16th for public review at the following locations:

Columbus Regional Airport Authority
Port Columbus International Airport
Administrative Offices
4600 International Gateway
Columbus, OH 43219

City of Gahanna
200 South Hamilton Road
Gahanna, OH 43230

City of Whitehall
360 South Yearling Road
Whitehall, OH 43213

Jefferson Township
6545 Havens Road
Blacklick, OH 43004

City of Bexley
2242 East Main Street
Bexley, OH 43209

City of Reynoldsburg
7232 East Main Street
Reynoldsburg, OH 43068

Bexley Public Library
2411 East Main Street
Bexley, OH 43209

Columbus Metropolitan Library
Main Branch
96 South Grant Avenue
Columbus, OH 43215

Gahanna Branch
310 Granville Street
Gahanna, OH 43230

Shepard Branch
790 North Nelson Road
Columbus, OH 43219

Linden Branch
2432 Cleveland Avenue
Columbus, OH 43211

Whitehall Branch
4371 East Broad Street
Whitehall, OH 43213

Reynoldsburg Branch
1402 Brice Road
Reynoldsburg, OH 43068

Port Columbus International Airport Website
www.columbusairports.com/noise/info.asp#150

THE COLUMBUS DISPATCH
PROOF OF PUBLICATION

STATE OF OHIO, FRANKLIN COUNTY. SS:

Shelly Donovan
Classified Merchandise Services Manager

The Columbus Dispatch, a newspaper published at Columbus, Franklin County, Ohio, with a daily paid circulation of over 200,000 copies, personally appeared and made oath that the notice of which a true copy is hereunto attached was published in The Columbus Dispatch for 3 Time(s) on

July 12,13,14, 2007

and that the rate charged therefore is the same as that charged for commercial advertising for like services.

Shelly Donovan

subscribed and Sworn on this 25th day of July 2007 as witness my hand and seal of office.

NOTARY PUBLIC - STATE OF OHIO

NOTARIAL SEAL

VERONICA H. HILL
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES NOVEMBER 6, 2008

LEGAL NOTICE

The Columbus Regional Airport Authority will conduct two Public Information Workshops and two Public Hearings with respect to the Part 150 Noise Compatibility Study Update being prepared for Port Columbus International Airport. The Workshops/Hearings will be held from 5:00 p.m. - 8:00 p.m. on:

Tuesday, August 14, 2007
Oakland Park at Brentnell Elementary School
1207 Brentnell Avenue
Columbus, OH

Wednesday, August 15, 2007
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH

Comments received at the Public Hearing(s) will become part of the final document to be submitted to the Federal Aviation Administration (FAA) for review. Airport staff and noise consultants will be available to answer questions and provide information regarding the study.

The Columbus Regional Airport Authority has published a Draft Part 150 Noise Compatibility Study Update Report and copies will be available beginning July 16, 2007 at the following locations:

Columbus Regional Airport Authority, Port Columbus International Airport Administrative Offices, 4600 International Gateway, Columbus, OH 43219

City of Gahanna, 200 South Hamilton Road, Gahanna, OH 43230

City of Whitehall, 360 South Yearling Road, Whitehall, OH 43213

Jefferson Township, 6545 Havens Road, Blacklick, OH 43004

City of Bexley, 2242 East Main Street, Bexley, OH 43209

City of Reynoldsburg, 7232 East Main Street Reynoldsburg, OH 43068

Columbus Metropolitan Branch, Main Branch, 96 South Grant Avenue, Columbus, OH 43215

Columbus Metropolitan Library, Gahanna Branch, 310 Granville Street, Gahanna, OH 43230

Columbus Metropolitan Library, Shepard Branch, 790 N. Nelson Road, Columbus, OH 43219

Columbus Metropolitan Library, Linden Branch, 2432 Cleveland Avenue, Columbus, OH 43211

Columbus Metropolitan Library, Whitehall Branch, 4371 East Broad Street, Whitehall, OH 43213

Columbus Metropolitan Library, Reynoldsburg Branch, 1402 Brice Road, Reynoldsburg, OH 43068

Bexley Public Library, 2411 East Main Street, Bexley, OH 43209

Port Columbus International Airport Website: www.columbusairports.com/noise/info.asp#150

Comments on the Draft Part 150 Noise Compatibility Study Report may be submitted through August 31, 2007 to: Rob Adams, Part 150 Project Manager, Landrum & Brown, Inc.,11279 Cornell Park Drive, Cincinnati, Ohio 45242. Comments may also be e-mailed to Mr. Adams at radams@landrum-brown.com or sent by fax at (513) 530-1278 (facsimile) through 5:00 p.m. on August 31, 2007.

If special accommodations are required for an individual's participation in the meeting, please call Mr. Adams at (513) 530-1201 one week prior to the scheduled date of this meeting.

that the White supremacists and conservative bloggers who had promoted the case as an example of media bias were themselves "put[ting] on the victim hat" and making the specious argument that Black-on-White crime is somehow underreported in America.

And he concluded his column with a statement that would ultimately lead to intense controversy:

"I have four words for ... any other White Americans who feel themselves similarly victimized. Cry me a river."

After the column came out, a White supremacist Web site posted Pitts' home address and telephone number, and the response was explosive - "400 e-mails, dozens of phone calls, leaflets on my neighbor's driveway," Pitts wrote in a follow-up column.

Among some of the more printable responses: "You should be back in a damn mud and dung hut you nappy headed ho," and "Who's crying now, you affirmative action ape?"

Some of the things people wrote, Pitts recalled, "simply defied anything even approaching logic."

And when Miami Herald Manager Editor Dave Wilson asked the Web site, "Overthrow.com," to delete the address and phone number, Bill

the front burner of American society. The U.S. Supreme Court placed it there, with its ruling overturning voluntary desegregation plans in Seattle and Louisville as being discrim-

no intention of not writing about the racial divide that still plagues America.

"I tell people I have no other saleable skills."

Warsame, said that Somalis "do not engage in terrorism, and that "Somalis will never blow themselves up."

The president of the Somali Community Association of Ohio, Omar Hassan, who has had meetings with the FBI in the past regarding the case, noted that, "The Somalis have no intention to harm the United States. We have nothing against America."

But at the same time, Hassan expressed disappointment about the outcome of the case, noting that, "If Abdi was truly guilty of these charges, he would have been convicted long time ago."

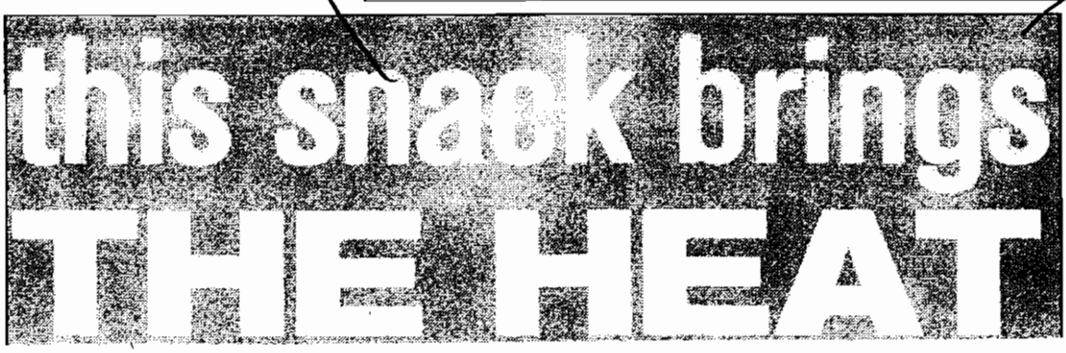
But while he is not happy about this, Hassan also wondered what all of a sudden prompted last week's plea deal, and if Abdi's family was even involved in the talks.

These and related questions are now subjects of continuing discussion in the Somali community, where many are tight-lipped when it comes to speaking to the media about it. Because of the sensitivity of the matter, efforts to get Somalis to talk openly kept coming back to one thing: uneasy.

Somalis typically cower at linking their names to a story about terrorism for fear of saying the wrong thing, believing that anything they say could be viewed through the lens of all Muslims being potential terrorists.

"I can imagine their dilemma," said Hassan.

ment for training the dogs to more casual participants.



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ublic records such as real ownership.

ve steadfastly complied with terpretation in spite of many sts to violate it. This new law v before the new Attorney ral for clarification. If he es that the new law does l apply to all public records ployees in these occupations eir spouses, former spouses ildren then I will comply at law too in my real estate ls, vendors' licenses, dog s, rental registrations, delin- y listings in the paper and actured homes titles.

sume that so will the Board ctions, County Recorder, f Courts, Vital Statistics, the , Ohio Department of Nat- esources, Municipalities, hips, etc. But is that what is want?

lic is public. If Ohio's citi- elieve that home addresses, ample, rise to the level of Security numbers as war- privacy then it should apply yone, not just selected occu- regardless of how impor- norable or dangerous they e. Equality under the law mean just that.

u like this new law, call your ors and tell them. But if you that this was the wrong n, you should let them know o. It was House Bill 141. ppose this law is not "anti" ly; it is "pro" an open sys- government, with free unob- access to the complete pub- rd equally applied to all cit-

ta has served as Franklin Auditor since 1992. He can hed at joe_testa@franklin- hio.gov.

is not

Public Information Workshop/Hearing

FAR Part 150 Noise Compatibility Study
Port Columbus International Airport

The workshop/hearing will be held at:

Oakland Park at
Brentnell Elementary School
1270 Brentnell Avenue
Columbus, OH
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5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH
Wednesday, August 15, 2007
5 p.m. - 8 p.m.

No formal presentations are planned – stop in anytime
No charge for parking

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Beginning July 16th for public review at the following locations:

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Port Columbus International Airport
Administrative Offices
4600 International Gateway
Columbus, OH 43219

City of Gahanna
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Gahanna, OH 43230

City of Whitehall
360 South Yearling Road
Whitehall, OH 43213

Jefferson Township
6545 Havens Road
Blacklick, OH 43004

City of Bexley
2242 East Main Street
Bexley, OH 43209

City of Reynoldsburg
7232 East Main Street
Reynoldsburg, OH 43068

Bexley Public Library
2411 East Main Street
Bexley, OH 43209

Columbus Metropolitan Library
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Columbus, OH 43215

Gahanna Branch
310 Granville Street
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Linden Branch
2432 Cleveland Avenue
Columbus, OH 43211

Whitehall Branch
4371 East Broad Street
Whitehall, OH 43213

Reynoldsburg Branch
1402 Brice Road
Reynoldsburg, OH 43068

Port Columbus International Airport
Website
www.columbusairports.com/noise/info.asp#150

cs 080907 B8881401

Public Information Workshop/Hearing

FAR Part 150 Noise Compatibility Study
Port Columbus International Airport

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Administrative Offices
4600 International Gateway
Columbus, OH 43219

City of Gahanna
200 South Hamilton Road
Gahanna, OH 43230

City of Whitehall
360 South Yearling Road
Whitehall, OH 43213

Jefferson Township
6545 Havens Road
Blacklick, OH 43004

City of Bexley
2242 East Main Street
Bexley, OH 43209

City of Reynoldsburg
7232 East Main Street
Reynoldsburg, OH 43068

Bexley Public Library
2411 East Main Street
Bexley, OH 43209

Columbus Metropolitan Library
Main Branch
96 South Grant Avenue
Columbus, OH 43215

Gahanna Branch
310 Granville Street
Gahanna, OH 43230

Shepard Branch
790 North Nelson Road
Columbus, OH 43219

Linden Branch
2432 Cleveland Avenue
Columbus, OH 43211

Whitehall Branch
4371 East Broad Street
Whitehall, OH 43213

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1402 Brice Road
Reynoldsburg, OH 43068

Port Columbus International Airport Website
www.columbusairports.com/noise/info.asp#150

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l Evans is president of Real Liv- ; HER. Visit RealLiving R.com, or e-mail Evans at l Evans@RealLiving.com.

Public Information Workshop/Hearing

FAR Part 150 Noise Compatibility Study
Port Columbus International Airport

The workshop/hearing will be held at:

Oakland Park at Brentnell Elementary School
1270 Brentnell Avenue
Columbus, OH
Tuesday, August 14, 2007
5 p.m. - 8 p.m.

Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH
Wednesday, August 15, 2007
5 p.m. - 8 p.m.

No formal presentations are planned – stop in anytime
No charge for parking

Draft Noise Compatibility Study documents will be available Beginning July 16th for public review at the following locations:

Columbus Regional Airport Authority
Port Columbus International Airport
Administrative Offices
4600 International Gateway
Columbus, OH 43219

City of Gahanna
200 South Hamilton Road
Gahanna, OH 43230

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Reynoldsburg, OH 43068

Port Columbus International Airport Website
www.columbusairports.com/noise/info.asp#150

fs

90 graduate of Gahanna Lincoln
s the son of Joe and Joyce Fleury

er, son of Natalie and Terry Miller
s received a Deans' Award schol-
the Columbus College of Art &

ased award is given as a result of
competition held at the school
a team of CCAD faculty.
aduate of Gahanna Lincoln High

s

Westerville South High School Class of 1982 25-year reunion is Aug. 18. Details to be determined. E-mail Sue Bell at suebee64@yahoo.com or call (614) 882-6742.

Westerville North High School Class of 1987 20-year reunion is scheduled for Sept. 1. Details to be determined. Register at Classmates.com.

Westerville South High School Class of 1987 20-year reunion is Aug. 3-5 and include a preview at Wendell's Pub Friday, reunion at the DoubleTree Hotel Saturday (cost $45 per person) and a family picnic Sunday at Walnut Ridge Park. E-mail WSHS_1987_Reunion@yahoo.com.

Westerville South Class of 1992 15-year reunion will be Saturday, July 28, at Alum Creek State Park, Below Dam Area. Bring a picnic

ers and registered nurses. The groups are ongoing; join any time. Call Mount Carmel St. Ann's at (614) 898-8517.

Couples pursuing adoption meet the second and fourth Monday of the month. For location and time, call Dee at 236-2678. Sponsored by RESOLVE of Ohio.

Emotions Anonymous, a 12-step program for emotional wellness, meets 4-5 p.m. Saturday and 7:30-8:30 p.m. Sunday at North Community Lutheran Church, 114 Morse Road, and 7-8 p.m. Tuesday at Meadow Park Church of God, 2425 Bethel Road. Call 470-0397.

Families Anonymous, for parents of those with substance abuse or behavioral problems, 7 p.m. Thursdays, at Overbrook Presbyterian Church, 4131 N. High St. Call 885-5199 or 875-8695.

Fibromyalgia/Pain Management Group, 7:30-9 p.m. every Tuesday, at the Columbus Chiropractic Center, 5870 Cleveland Ave. Call Phyllis Ritter at 898-9479.

Parents of children with epilepsy meet from 6:30-8:30 p.m. the last Tuesday of the month, at the Epilepsy Foundation Office, 510 E. North Broadway in Clintonville. No fee. Childcare available if registered. Call 261-1100.

Single Mothers Support Group, women's outreach for women, 6:30-8 p.m. Wednesdays at 1950-H N. Fourth St. Child care is provided.

Sister Friends Support Group, for women living with HIV/AIDS, 6:30-8:30 p.m. on the second and fourth Thursdays of the month at Passages, 823 1/2 E. Long St.

Stay-at-Home Dads, a group providing support, social opportunities and playgroups for at-home dads. Contact Columbusdads-@wideopenwest.com.

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Public Information Workshop/Hearing

FAR Part 150 Noise Compatibility Study
Port Columbus International Airport

The workshop/hearing will be held at:

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www.columbusairports.com/noise/info.asp#150

08-14-2007
FOR IMMEDIATE RELEASE

Public Workshops on Port Columbus Noise Compatibility Study Slated for Tuesday & Wednesday

COLUMBUS – The final two public information workshops for the Port Columbus International Airport Noise Compatibility Study will be held Tuesday, August 14 and Wednesday, August 15. The Noise Compatibility Study is intended to update existing noise exposure contours and develop a balanced and cost-effective plan to reduce current noise impacts from aircraft operations, where practical, and to limit the potential for future impacts.

Workshop attendees are encouraged to provide comments on the study either via written forms or through oral comments facilitated by an on-site court reporter. All comments will become part of the final Noise Compatibility Study document to be submitted to the Federal Aviation Administration in the fall of 2007.

The Columbus Regional Airport Authority initiated the Noise Compatibility Study in 2006 to document the levels of noise from aircraft operations at Port Columbus. Residents, business owners and concerned citizens are encouraged to attend the workshops to provide input and ask questions. As there are no formal presentations, people are invited to attend the workshops at any time from 5 p.m. to 8 p.m.

Details of the Workshops

Dates: Tuesday, August 14 & Wednesday, August 15

Time: 5 p.m. to 8 p.m.

Locations: Oakland Park at Brentnell Elementary School, 1270 Brentnell Ave., Columbus on August 14

Whitehall Community Park Activities Center, 402 N. Hamilton Rd, Whitehall on August 15

For more information contact Angie Tabor, Manager of Communications for the Columbus Regional Airport Authority, at (614) 239-4081 or ATabor@ColumbusAirports.com.

– End –

x close window

Final Public Workshop/Hearing

on the Part 150 Noise Study concerning Proposed Expansion at

Port Columbus International Airport

The meetings will be held at:

Oakland Park at
Brentnell Elementary School
1270 Brentnell Avenue
Columbus, OH

Tuesday, August 14, 2007
5 p.m. - 8 p.m.

Whitehall Community Park
Activities Center
402 North Hamilton Road
Whitehall, OH

Wednesday, August 15, 2007
5 p.m. - 8 p.m.

*For more information about the **Part 150** contact:*

Mr. David E. Wall, A.A.E.
Capital Program Manager
Columbus Regional Airport Authority
4600 International Gateway
Columbus, OH 43219

Telephone: (614) 239-4063
Email: dwall@ColumbusAirports.com

Project Website:
www.columbusairports.com/noise/

The same information will be presented at both meetings. No formal presentations are planned – stop in anytime.

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 14, 2007 - Oakland Park at Brentnell Elementary School

SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Mrs Jessie Howard		
Eleanor M. Miller	2351 Dunkirk Dr	(614) 476-1553
DAVE WALL	CRAA	(64) 239-4063
BERNIE MELESKI	"	614-235-4042
Carolyn J White	1301 Brookcliff	614 704-2117
MARK KELBY	CRAA	614 239-5014
Dave Clawson	CRAA	614-239-5059
Rosetta Moore	1915 Enderly Dr.	(614) 308-0202
Mr. Wm H. Adams	2978 E. 12th Ave	614-258-8762
Delores Hackett	2200 Middlehurst Dr	614-253-7365

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 14, 2007 - Oakland Park at Brentnell Elementary School

SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Angela Newland	CRAA	614-239-4011
Gloria Hunt	1669 Barhaven Rd	614) 737-5304
MARY E. LITTLEFIELD	1889 DUNNING RD	614 475-2152
LISA CUMMINGS	1669 Barhar Rd	614-752-5304
Thomas Hagwood	3157 argyle dr	614-25-3-6614
Carol Thomas	1979 Argle Dr	614-291-1952
George BRoom	3122 E. Hudson ST	614-478-9935
JANE Hudgins		
Pwayne Farney	3198 E. 13th Ave	614-252-3504
Alice Porter	Treac 3130 McCutcheon	——

Page __ of __

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 14, 2007 - Oakland Park at Brentnell Elementary School
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
Deborah Johnson	2114 Sagamore Rd	475-4304
Jean Harbin	1088 Wildwood Ave	252-0971
Timothy Johnson	2114 Sagamore Rd	475-4304
Wm. Banks	815 Brentnell Ave	258-0411
LEO Jones	1570 MARINA Drive	258-0021
Alfonso B Hogan	2817 Bethesda Lane	252-2270
Clifford S. Miller	2351 Dunkirk Dr	476-1553
Laurence Button	1655 Depaw Dr	3721602
Sherly Button	1336 E 20th Ave	2946753
Emanuel + Charlotte Frazier	2389 Dunkirk Drive	471-9460

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 14, 2007 - Oakland Park at Brentnell Elementary School

SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
FRANCES E. BOND	2112 TONI ST	614-253-0674
Calvin Collins	2218 ARGYLE DR	614-258678 2
Earl Harris	1947 Dunning RD	614-471-1097
Virginia Harris	1947 Dunning RD	614 614-471-1097
[illegible]	483 Newburgh DR	
MARIA M ARIAS	1633 KARON Drive	614-253-2711
[illegible]	2728 Sherbourne Dr	
JOHN MARTIN	1431 DUBAY AVE.	(614)253-5040
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
Cathy Ferrari	OSU Airport 2160 West Case Rd Col. 43235	292-5823

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 14, 2007 - Oakland Park at Brentnell Elementary School

SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
D'Chandler Phillips	1291 Brentnell Ave	614 374 8480
Ela Kilcoyne	1457 Broadview Ave.	614 / 572-9138
Tom Maccioni	1342 Thorncrest Pl	614 572-9691
Elizabeth Ziegler	1812 Bar Harbor Rd	471-3574

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING
August 15, 2007 - Whitehall Community Park Activities Center
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
BERNIE MELESKI	CRAA	614-239-4042
DAVE WALL	CRAA	614-239-4063
Margretta Motley	Cols. OH 43220 5349 Primrose Hill Dr.	614-428-5282
DIANNE GARRETT	EAST SIDE MESSENGER	614-560-6159
Doris Shields	2781 Kenilworth Rd.	614-252-1972
SAMUEL ROUCHON	835 HARMONY DR	—
JAMES DENTON	2017 RANKIN AVE	614.209-4379
GLORIA MORGAN	3260 E. 12th Ave	579-2968
[illegible]	3254 E. 12th Ave	253032/
Steve DEE DIAMOND	3543 WINDON Ave	471-8077

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING

August 15, 2007 - Whitehall Community Park Activities Center

SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
BARBARA J. KING	1709 N. CASSADY Ave Columbus, Ohio 43219	614-475-6745
Patronia Thompson	3212 E. 13th Ave Cols., Ohio 43219	614-253-2287
[illegible]	1044 Roxbury Ct	614-252-5103
Cleveland M. Burks	1858 Mountain Oak Rd 43219	614-476-4011
Jay Sharp	3316 Pine Valley Rd #316	644781[illegible]
Bill + Dessie Schmidt	1001 Parkview Blvd	614-372-0788
RAMONA ISBELL	2881 E. 12th Ave	614 253-8870
DON RAMEY	2445 AIRPORT DR	614 253-8131
[illegible]	City of Cols Development	645-6281
Alexandra Fraser	686 Northview Ave 43219	614 458 4950

PORT COLUMBUS INTERNATIONAL AIRPORT

Part 150 Noise Compatibility Study
PUBLIC WORKSHOP/HEARING
August 15, 2007 - Whitehall Community Park Activities Center
SIGN-IN FORM

NAME (PLEASE PRINT)	ADDRESS	PHONE NUMBER (INCLUDE AREA CODE)
DON PETERS	40 MASSEY DR. WESTERVILLE	614 890 1062

Purpose of Tonight's Meeting

The final Public Information Workshop/Public Hearing is being held tonight to invite comments on the findings of the Part 150 Noise Compatibility Study (Noise Compatibility Study) being conducted by the Columbus Regional Airport Authority (CRAA) for Port Columbus International Airport (CMH). The proposed improvements at CMH include the replacement/relocation of the airport's south runway and the development of a new passenger terminal to supplement the existing passenger terminal. The purpose of the Noise Compatibility Study is to identify the noise impacts of these projects on the surrounding community and to develop mitigation measures to help minimize these impacts.

The CRAA is updating the Noise Compatibility Study at the same time that the Federal Aviation Administration (FAA) is preparing an Environmental Impact Statement (EIS) for the proposed projects. The EIS analyzes and discloses all of the environmental impacts caused by proposed projects including noise impacts. The results and recommendations of the Noise Compatibility Study will be included in the EIS. Additional workshops concerning the EIS will be held as the study progresses. The public will be notified of those workshops as they are scheduled.

Information Available at Tonight's Workshop

Part 150 of the Federal Aviation Regulations provides guidance for conducting a Noise Compatibility Study. There are two components to the study process. The first component is to identify the Noise Exposure Maps (NEMs) and the second is to develop a Noise Compatibility Program (NCP). The NEMs developed as part of this study process have been reviewed at the previous workshops.

Tonight's workshop will focus on the NCP which sets forth measures intended to mitigate the impacts of significant noise exposure on residential areas near CMH, and to limit, to the extent possible, the introduction of new land uses into locations exposed to significant noise levels. NCP measures include noise abatement, land use mitigation, and program management measures.

Noise Abatement Measures

Noise Abatement measures address aircraft operating procedures. Noise abatement measures being recommended in this study include the following:

Currently Approved Measures Recommended Without Modification

NA-1: Amend the airport's current Run-Up Policy to designate a new run-up location such that the EJA (now NetJets) terminal building will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.

NA-2: Construct a new run-up barrier at the north airfield, if the EJA (now NetJets) building does not adequately attenuate jet maintenance run-up noise for adjacent residential areas located along I-270

NA-3: Increase nighttime use of Runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1 to read as follows:

- Unless wind, weather, runway closure, or loss of NAVAIDs dictate otherwise, between the hours of 10:00 p.m. and 8:00 a.m. local time Runways 28L or 10R are assigned jet aircraft;
- Jet aircraft with Stage 3 engines may use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m., local time; and jet aircraft with Stage 3 engines may use Runway 10L or 28R after 6:00 a.m.

NA-4: Maximize east flow and amend FAA Tower order CMH ATCT 7110.1b. and the Airport Facilities Directory to reflect implementation of the "east flow" informal preferential runway use system.

Currently Approved Measures Recommended for Withdrawal

NA-5: One measure that was included in the previous NCP deals with smaller propeller driven aircraft, specifically those associated with the AirNet operation. Since AirNet has relocated to Rickenbacker this issue is no longer relevant and therefore the measure is being recommended for withdrawal from the NCP.

New Alternatives Recommended

NA-6: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.

NA-7: When wind, weather, and operational conditions allow, nighttime (10:00 p.m. to 7:00 a.m.) arrivals use visual side step approach to Runway 28L.

NA-8: Create performance-based overlay procedures for all existing and proposed flight procedures. (There are many new technologies that may be available to guide aircraft for other reasons than noise, but may benefit the impact of noise. The CRAA is interested in looking into the best technology for noise implementation.)

NA-9: Construct a noise berm/wall.

NA-10: Upgrade/relocate Ground Run-up Barrier B (location/materials/size). Barrier B is the southern most barrier on the Airport.

Illustrations of the recommended noise abatement measures are available at tonight's workshop.

Land Use Measures

Land use measures are recommended to either prevent new noise-sensitive land uses from occurring in the existing or future airport noise contours, or include measures that are applied to existing incompatible land uses. Recommended land use measures include the following:

LU-1: Continue the CRAA's on-going program for noise insulation of noncompatible structures for noncompatible residences within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map with program implementation in exchange for an avigation easement. The recommendation is to continue with this measure while modifying the boundary based upon Future (2012) NCP. An additional 247 housing units would be eligible for sound insulation.

LU-2: Offer a program for noise insulation of noncompatible structures for noncompatible churches within the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map, with program implementation in exchange for an avigation easement. Currently this measure is implemented as there are no churches located within the Future (2012) NCP. It is recommended to continue this measure, with no action at this time.

LU-3: Continue a measure that has been previously partially implemented to seek cooperation from the City of Columbus and Franklin County to amend their Land Use Compatibility Standards to achieve the level of compatibility identified in the recommended Land Use Compatibility Guidelines.

LU-4: Currently Columbus and Franklin County set the Airport Environs Overlay (AEO) boundary at the 65 DNL contour. This measure seeks cooperation from both parties to amend the boundaries of the AEO District to correspond to the DNL 60 dB and greater noise contours. (It is recommended that this measure be modified to include the proposed Airport Land Use Management District (ALUMD) as measure boundary).

LU-5: Seek cooperation from Franklin County to amend the Franklin County Zoning Resolution, Section 660.07, Avigation Easement, to require applicants for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport. The recommendation is to continue this measure with modification to include the City of Gahanna and Jefferson Township.

LU-6: Seek cooperation from Jefferson Township and the City of Gahanna to adopt the Airport Environs Overlay (AEO) District as part of their official zoning regulations. (It is recommended that this measure be modified to include the proposed Airport Land Use Management District (ALUMD) as measure boundary).

LU-7: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the Airport Environs Overlay (AEO) District. (It is recommended that this measure be modified to include proposed Airport Land Use Management District (ALUMD) as measure boundary).

LU-8: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the Airport Environs Overlay (AEO) District. (It is recommended that this measure be modified to include the proposed Airport Land Use Management District (ALUMD) as the boundary).

LU-9: Seek cooperation from the Board of Realtors to participate in a voluntary fair disclosure program for property located within the AEO District. (It is recommended that this measure be modified to include the proposed Airport Land Use Management District (ALUMD) as the boundary).

LU-10: Periodically place advertisements in the real estate sections of local newspapers delineating the boundaries of the AEO District with modifications to advertise the Airport Land Use Management District (ALUMD) boundaries through a variety of media, not specifically real estate sections of newspapers.

Currently Approved Measures Recommended for Withdrawal

Previously approved land use measure LU-11, which was the purchase of the Buckles property to prevent incompatible development from occurring, is being recommended for withdrawal because the property is currently being developed with compatible uses.

New Alternatives Recommended

LU-12: Establish an Airport Land Use Management District (ALUMD) that would be based on the 20-year Noise Exposure Map/Noise Compatibility Program (NCP) noise contour, natural geographic and jurisdictional boundaries.

Program Management Measures

Program management measures assist the Airport staff in managing the NCP after it is approved by the FAA. The six measures listed below, were previously approved and are being recommended to be continued.

PM-1: Maintain the noise abatement elements of the FAA ATCT Tower Order.

PM-2: Maintain the Noise Management Office for noise compatibility program management.

PM-3: Maintain an ongoing public involvement program regarding the noise compatibility program.

PM-4: This measure is being updated to include the continued upgrading of the noise and flight track monitoring system with the latest hardware. It also includes the addition of eight permanent noise monitors to the 12 that the CRAA currently has located around CMH.

PM-5: Routinely update the noise contours and periodically update the noise program.

PM-6: Establish a land use compatibility task force which meets periodically to discuss issues relevant to airport noise compatibility planning.

Commenting on the Noise Compatibility Study

The Noise Compatibility Study process is designed to encourage public review and comment. In addition to the information available at tonight's workshop/hearing, a Draft Noise Compatibility Study document has been prepared and is available for public review at the following locations:

Columbus Regional Airport Authority Port Columbus International Airport Administrative Offices 4600 International Gateway Columbus, OH 43219	Columbus Metropolitan Library Gahanna Branch 310 Granville Street Gahanna, OH 43230
City of Gahanna 200 South Hamilton Road Gahanna, OH 43230	Columbus Metropolitan Library Shepard Branch 790 N. Nelson Road Columbus, OH 43219
City of Whitehall 360 South Yearling Road Whitehall, OH 43213	Columbus Metropolitan Library Linden Branch 2432 Cleveland Avenue Columbus, OH 43211
Jefferson Township 6545 Havens Road Blacklick, OH 43004	Columbus Metropolitan Library Whitehall Branch 4371 East Broad Street Whitehall, OH 43213
City of Bexley 2242 East Main Street Bexley, OH 43209	Columbus Metropolitan Library Reynoldsburg Branch 1402 Brice Road Reynoldsburg, OH 43068
City of Reynoldsburg 7232 East Main Street Reynoldsburg, OH 43068	Bexley Public Library 2411 East Main Street Bexley, OH 43209
Columbus Metropolitan Branch Main Branch 96 South Grant Avenue Columbus, OH 43215	Port Columbus International Airport Website: www.columbusairports.com/noise/info.asp#150

Comments are encouraged at tonight's meeting. You may either provide written comments on the forms available in the workshop area, or you may provide oral comments to the court reporter that is available at tonight's meeting.

Comment forms are available in the workshop area. You may either complete the form this evening and leave them this evening, or you may take them with you and

mail them by **August 31, 2007**. All comments post-marked by this date will be included in the final document. Please mail comments to:

Mr. Rob Adams
Part 150 Project Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242
Phone (513) 530-1201

Comments may also be e-mailed to Mr. Adams at radams@landrum-brown.com or sent by fax to (513) 530-1278. All of the comments received at tonight's public workshop will be reviewed by the airport staff and will be addressed and incorporated into the final study document.

Next Steps

When all of the comments have been received, a final Noise Compatibility Study document will be prepared and submitted to the CRAA for final review. Following CRAA review, it will be submitted to the FAA for approval. The final document is expected to be submitted to the FAA in the fall of 2007.

It is anticipated that the FAA will approve the NCP in the summer of 2008. Implementation of the preventative land use measures can begin immediately upon approval. Implementation of the noise abatement procedures requires approval through the EIS that is being conducted at this time. It is anticipated that implementation of the extended sound insulation program will begin in 2009.

Public Hearing
August 14, 2007 & August 15, 2007

Speaker Registration
Hearing Transcript
Comments
Response to Comments

FAR PART 150 NOISE COMPATIBILITY STUDY
PORT COLUMBUS INTERNATIONAL AIRPORT

Public Information Workshop/Hearing
Court Reporter Sign-In

August 14, 2007

	Name	Address	Telephone
1.	Mrs Jessie M Howard	2197 Delaware	
2.	Mr. William H. Adams	2978 E. 12th	258-8763
3.	Dossette Moore	1915 Enderly Dr.	(614) 308-0202
4.	Eleanor M. Miller	2351 Dunkirk Dr	(614) 476-1553
5.	Alfonso L Hayes	2517 Bethesda Cir	
6.	Wm. A. Eagles	815 Eastwell Ave, Col 43219	
7.	Janice Hudgins	2702 Roxbury Rd	614 258-9922
8.	Frances E Bond	2112 Tonti S	253-0674
9.	Shirley Buttum for Laurence Buttum	1655 Depaw Dr	372-1602
10.	Jonas C Davis	1871 Dunning Rd Columbus 43219	475-1049
11.	Elizabeth Jeffs	1822 Bethel Rd Columbus 43219	(4713589)
12.			
13.			
14.			
15.			
16.			
17.			

- - -

IN RE:

FAR PART 150 NOISE COMPATIBILITY STUDY

PORT COLUMBUS INTERNATIONAL AIRPORT

- - -

TRANSCRIPT OF PUBLIC HEARING

- - -

In the above-captioned matter, taken before Teresa A. Pollard, a Notary Public and Court Reporter in and for the State of Ohio, at the Oakland Park Alternative Elementary School, 1270 Brentnell Avenue, Columbus, Ohio on Tuesday, August 14, 2007, at 5:00 p.m.

- - -

APPEARANCES

- - -

ROB ADAMS, Part 150 Project Manager
LANDRUM & BROWN, INC.

11279 Cornell Park Drive
Cincinnati, Ohio 45242
(513) 530-1201
E-mail: radams@landrum-brown.com

MELANIE K. DePOY, Managing Principal
AEROFINITY
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INDEX OF SPEAKERS

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Tuesday Evening Session,
August 14, 2007.
5:00 p.m.

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MS. KEISTER: Good evening. My name is Marie Keister and I would like to welcome you to the public hearing for the Draft Part 150 Noise Compatibility Study at Port Columbus International Airport. The Columbus Regional Airport Authority is providing citizens an opportunity to comment on the Draft Part 150 Noise Compatibility Study document. All of the comments, along with the prepared responses, will be included in the official record of the final Part 150 Noise Compatibility Study document.

In addition to making oral comments at the hearing tonight, written comments will also be

accepted through August 31st, 2007, when the official comment period will be closed. Comment forms are located at tables in the workshop room.

That's right over there.

If you wish to complete the form at home or want to send a letter, the mailing address is provided on the comment form.

Now I would like to review the procedures and process for tonight's proceeding. We will listen to each and every speaker and the hearing will remain

open until everyone who is registered to speak has had an opportunity to do so. In keeping with the hearing protocol, each speaker will be allocated up to three minutes. Speakers desiring more time may register to speak again and will be given another opportunity after all other registered speakers have had a chance. The order of the people that will speak will be in the order in which they signed up.

I would also like to state to you, I mean no disrespect to any of you but I will be stopping you after your allotted time. This is out of respect for the other people who want to speak tonight.

And, additionally, when you are completed, I will not respond back to any of the issues you raised. They will go into the formal document but it is not my role to discuss the issues with you this evening.

So that's the process that we have tonight and we will now start the public hearing process.

With that, I'm going to call you as the first speaker.

And correct me if I don't get this right.

Mrs. Jessie Howard.

MRS. JESSIE M. HOWARD: (Witness nods head.)

MS. KEISTER: And with that, you may start your comments.

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MRS. JESSIE M. HOWARD: Well, my comment, I won't say it's a comment but, anyway, I live at 2197 Delaware Drive, Columbus, Ohio. And I notice they haven't extended over into that area. I'm on the other side of Brentnell and I'm here because I do have a lot of noise because, like this morning, I got up when the airplane went over at 7:49, the airplane woke me up and I got up. 1.1 1.3

And during the night between three and four o'clock in the morning, they are going across the house above us. And it is very much annoying.

And here lately, I'm under doctor's care with high blood pressure and the least little noise or something like that, it upsets me and that blood pressure go up. And that's another reason why I decided to come up to this meeting today and make my complaint. 1.7

And I would appreciate it if they would extend it into that area because we do need it because a lot of senior citizens live in that area. I don't know if there's anyone else in that area here other than I but I come to express my opinion. 3.1

And hopefully that you will extend it into our neighborhood.

I lived there since 1968 and I have -- it has

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been noisier than it is now but they explain to me, the airplanes cut down on the noise, so I guess that's why it is not as noisy as it used to be. 1.12

So that is about it. Hopefully that you all will extend it into my neighborhood.

Thank you. God bless.

MS. KEISTER: Thank you very much. Appreciate your comment tonight.

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(Recess taken.)

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MS. KEISTER: I would ask that you state your name and address and you may begin.

MR. WILLIAM H. ADAMS: My name is William Howard Adams. I reside at 2978 East 12th Avenue, ZIP Code 43219. I'm here to represent the East Columbus Community and especially the people that live on East 12th Avenue.

We've been a part of the sound installation program from the inception, from the beginning, and it appears that the East Columbus area -- specifically those people that live on 12th Avenue -- were disenfranchised from the beginning.

Let me preference my remarks by saying that if the current director, Miss Elaine Roberts, if she

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had been the director of the Columbus Airport at that time, I think our concerns would have been better addressed. I think that she's a phenomenal executor and she's been out to our community on several occasions and also she's provided support to the only elementary school we have in the area.

After saying that, all of our concerns were documented in a study that was compiled by William H. Adams who provided the information and the study was done and the name of the study was the East Columbus Civics Association Special Airport Issues. And that was released July the 20th in 2000.

All of our concerns were addressed at that particular time.

When the sound installation program began, it was to those people that were in the 150 Part, 150 and the sound installation, the noise parameter, was 65 LDN. They raised it to 70 LDN and at that time, the contractor was from San Francisco and they identified our area as being within 65 to 70. Now, we don't know at that time whether we were at 69 or 68, but any event, we were excluded from the sound installation program. 3.1

Since that time, areas have been identified within the 65 LDN and they have benefited.

9

Specifically, the Brittany Hills area which is a further distance from 12th Avenue. 12th Avenue -- end of 12 Avenue dead-ends as the airport's property.

So, after saying all of that, we feel that none of our concerns have been addressed over the years as far as the sound installation program. We have given oral reports, we have given verbal reports and also through this same media that you're doing now. And if I would like to ask a question, is that permissible? 1.15

MS. KEISTER: Yes, but I may not be able to

answer.

MR. WILLIAM H. ADAMS: The only question I would like to know is, after giving a report that is documented through the Court Reporter, will there be anything from this report that will -- somebody will listen to? In the past, it doesn't appear that nobody was able to give us any kind of an answer from our Court Reporter.

MS. KEISTER: I'm not to engage in a dialogue.

MR. WILLIAM H. ADAMS: Yes, ma'am.

MS. KEISTER: So I would just direct you to the staff that's in the other room.

MR. WILLIAM H. ADAMS: And I appreciate that.

And we have been -- I have several correspondence from the staff. I have correspondence from Dave Walls. The last correspondence I received from him was August 1st, 2007. And I also received from Miss -- from Detroit, that was April the 22nd, 2007.

MS. KEISTER: And I'm going to give you about one minute to wrap up.

MR. WILLIAM H. ADAMS: Okay.

And that was from Ms. Kathleen Jones, I think, her office. That was the Detroit District Office in Michigan.

So all of our concerns have been documented. And to refer back to the comments that were listed in the East Columbus Civic Association Special Airport Issues Report dated July 20, I would still like for the airport to con -- give us a reply as far as the

1.15

sound installation program.

Thank you very much.

MS. KEISTER: Thank you, sir.

Ma'am, if you would like to start yours, too.

MS. DOSSETTE MOORE: Yes, I won't be that long. I just got to say a few words.

I forgot what year, they put a monitor in my backyard -- you got to have a name, don't I?

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MS. KEISTER: Oh, yes. If we could have your name and address.

MS. DOSSETTE MOORE: Dossette Moore, 1915 Enderly Drive, Columbus, Ohio 43219.

Okay. I've been with this program ever since it started, but I didn't make them all because I've been ill. I had two back surgeries and I've been wanting to come but anyway, they put a monitor in my backyard at 1915 and they said the noise wasn't quite high enough. But the noise is so bad where I live, you can read the planes. They come down real low, before you get to Brittany Hills, it goes up and down, okay? They put it in the back, the back of the yard, I didn't have a switch back there. They had one of those portable things to change the batteries and they change the batteries, but the noise wasn't quite high enough.

1.16

1.1

1.16

I think it was like 60 something.

But anyway, I really wasn't prepared -- I had back surgery last June. I wasn't prepared with papers and stuff, you know, to come but I just came on in anyway. But I really did appreciate the gentleman

doing the job. They put a portable noise control and then they come checked it out and I've been keeping up with this ever since.

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And thank you so much. Both of you.

MS. KEISTER: Thank you. Have a nice evening.

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(Recess taken.)

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MS. KEISTER: Start with your name, address and then your testimony.

MS. ELEANOR M. MILLER: My name is Eleanor M. Miller and I live at 2351 Dunkirk Drive.

And I am here tonight because I have attended meetings before when we had them at our Community Center over at the Brittany Hill Recreational Center and to do a follow-up, I have received a copy -- I mean a letter to come but I was thinking that when it says Oakland Park that there's no school there, until the lady explained to me it has to be here. And that's why I'm here.

And also during the time that I was attending the meeting, we -- I found out that we were affected of the sound. Because next door to me, 2361 right in front of South Mifflin Elementary school, there's a monitor there and even monitoring the sound, that we are not affected. But when people all around me got, you know, the work done, I was kind of upset. But

1.1

3.1

13

yet, we were told that in the near future, it is possible that we still could get it. So I'm here

tonight to see what's going to go on and hoping and praying that we will get it.

And --

MS. KEISTER: Is that it?

MS. ELEANOR M. MILLER: Yes.

MS. KEISTER: Thank you very much.

MS. ELEANOR M. MILLER: All right.

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(Recess taken.)

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MS. KEISTER: To start if you would give us your name and address, please, and then start.

MR. ALFONZO COOPER: My name is Alfonzo Cooper. My address is 2517 Bethesda Avenue. I represent the Brittany Hills neighborhood which consists of the North Central Area Commission; that's what my position is, and I've been on the airport board noise overlay committee for about 15 to 20 years.

And what I wanted to discuss is the noise monitoring machines, monitoring devices that they have put in the Brittany Hill area and I would like to know how often do the community get an update of the results of those noises comparable to when our airport

1.8

is busiest, like on holidays and things of that nature?

And I would like, in relationship to who gets the soundproofing and who don't, when it comes to overlay noise like 65 versus 70 or 60 versus 65, I think the neighborhood community in those areas -- because we was fortunate enough to get soundproofing

3.1

for half the neighborhood, that met the qualifications of the 60 or 70, but we have another half that's right there on the percentage line that have been denied that I really feel that is entitled to it because of the volume of airport usage. 3.6

And I would really like to have each individual household that's involved in these overlay -- airplane overlays to be given some type of periodical report of what the monitors that have been placed in our community, what kind of results are they telegraphing of airport use and noise? 1.8

And if they could get our community and our community residents those, I think it will be a better issue of really a better quality of life for how the noise affects each household. Because I just feel that the 200 houses that they done, didn't get no more noise than the ones that was denied. And I'm really concerned with that. 3.1, 3.6

By being the representative of the complete neighborhood that have separated and divided the communities in a way that I don't have time to understand because when the airport comes over, they can't hear their TVs and phones and et cetera. And then the neighborhood next -- the neighbor next door got soundproofing and they can't, it's really a concern to me. 3.6

MS. KEISTER: Thank you very much for your testimony.

MR. ALFONZO COOPER: Thank you.

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(Recess taken.)

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MS. KEISTER: I would like to ask you to start with your name and address.

MR. WILLIAM A. BANKS: My name is William A. Banks, B-A-N-K-S. I live at 815 Brentnell Avenue, Columbus, 43219.

Area code (614)258-0411.

E-mail, W-A Bank at earthlink dot net.

Fax number is (614) 258-9626.

I want to say simply that I attend all of these meetings and my name will be public record for you or whomever has access to the records. And I

simply want to say I've listened to each -- at each meeting, I take time to get some explanation about what is going on. It is generally the same thing. Sometimes I think I'm wasting my time by coming. Where I live is one block south of 5th Avenue and we get -- and I understand from the graphs over there today, 43 percent of the planes that go west pass by my house, practically right down 5th Avenue. I live one block south.

We have -- I'm not knocking the people, 200-plus or however many people have gotten that; I'm not knocking that. More power to them. I think the study and the installation and the results of the study should include where I live on Brentnell Avenue, just one block south of 5th Avenue. 3.1

And, so it looks like -- looks like too many people that need the installation and the benefits from the federal government are not getting it. And

we are one of them. We've been out from day one. They say, I guess, we are too far south or whatever.

But I would like to see the government take another look at it and include the people south of 5th Avenue. 3.1

And we understand that the runway is going to be established -- or a new runway, or an additional

runway, maybe I should say, south of the runway up there now. There's going to be a runway south of the runway that currently exists. So that will make it even closer to us. 5.3

So I think the people on Brentnell Avenue should be -- Brentnell and one block south of 5th should be included in the benefits derived from the noise study that you're currently conducting. Okay. 3.1

MS. KEISTER: Thank you very much. We appreciate your testimony.

MR. WILLIAM A. BANKS: Okay. Have a good evening.

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(Recess taken.)

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MS. KEISTER: With that, I'll let you begin with your name and address and your testimony.

MS. JANE HUDGINS: My name is Jane Hudgins. I live at 2702 Roxbury Road, that is Columbus, Ohio. And my ZIP is two -- 43219, sorry.

And I'm getting -- I've only lived there for 11 months and if I had have known -- the realtor, if she had told me about the planes, I wouldn't have moved there. The noise is very loud to the extent 7.3

that my chair is rocking and my dishes and things are rolling on the windows. And the walls and things and my ceiling are cracking and when the man came out to do the inspection of my house, he said due to the planes and the years, that they're pulling the rafters from the wall -- from the ceilings.

And that's going to be a problem. I'm going to have to get that fixed. But he said, due to the planes over the years.

And I'm very concerned. You know very concerned. And my mother and I -- it's her and I, and she's 88 years. And the first night that we spent there, she thought that it was a hurricane. She said, honey, are we having a hurricane? What's going on?

And I said, no, it's the planes.

And it's beginning to bother her to the extent of when she does go to the doctor, her blood pressure is up. And she says she's nervous, the noise -- she calls it the noise.

And when -- the first night that we spent there, about a quarter of 6:00 in the morning till about eleven o'clock in the morning, that's when I noticed it the most. I get the, mmmmmm, (indicating), that's the sound of the planes, you know. More so to -- and she really thought it was a hurricane the first night that we were there. And for about, maybe, four or five nights, I had to give her a nerve pill.

And she's sort of getting used to it but it still bothers her. It bothers me sometimes when

you're trying to sleep. Because I don't work and I don't have to get up in the morning to go to work and that's when I mostly notice it. But when you're up, moving around, you do not notice the noise as much. 1.3

And they come right up across -- a couple of them cross over the back of my house about 50 feet up. And there was a little joke about it. The lady says, oh, honey, I could even see the dresses they got on.

I says, I'm not going to lie, but I can count the windows and I know every plane that comes by because I can read them, you know, the writing on them and the colors and it's something.

But if I had have known, I wouldn't -- we would not have bought that house, due to that noise. And I'm very sorry. Nice house; nice neighborhood. Senior citizens. Everybody's been there 35 to 40 years. I'm the newcomer.

And I guess I'm the one that's squeaking and making the most noise because they have gotten used to it over the years, you know.

And that's all, basically, I have to say. The neighborhood is lovely up by the airport. It's

really nice up there but it is just the noise. 1.1

MS. KEISTER: Well, we very much appreciate your comment this evening.

MS. JANE HUDGINS: Thank you.

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(Recess taken.)

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MS. KEISTER: Do you want to share your name and address for the record.

MS. FRANCES E. BOND: My name is Francis E. Bond, 2112 Toni Street. Zip is 43219. Phone number?

I just wanted to say that I think this work study, financially, should not be. Because you can't ever satisfy people. You can't ever satisfy people. If you do it for this batch of people, fifteen, twenty years down the line, they don't like this, that and the other, you know. 6.10

All right. President Nixon came in to Columbus when he was president, soon after he got here, he took Amtrak out off Columbus. You got to go down to Cincinnati or up to Cleveland to use Amtrak.

All right. People keep complaining about this -- this Port Authority out here, the next thing you know, you might be finding yourself going to another city to get on the airplane. A bird in the 7.1

hand is worth two in the bush. It's better to keep that one out there and keep your mouth shut.

And as far as noise is concerned, look, I'm 75 years old. I've been listening to the planes since -- at this address since 1973. And it hasn't bothered me.

And I've been from the Concord, when President Kennedy used to ride it. I could lie in my bed and just look right there at the Concord passing till they took that out, you see. Of course, I realize there's no Concord at all but am I just using that for illustration, you see.

It's better to keep what's here and be glad you have a Port Authority and don't have far to go

because it's just five to ten minutes, ain't no more than ten minutes from my house to the Port. And I'm glad it's there because I have to use it this Friday for an illustration. 7.1

So no, I'm against anything being done. Leave everything strictly like it is. Because you can never satisfy people. You give them what they want, it won't be long and oh, I don't like this. You can't satisfy people. No need to try.

Don't do it.

Somebody's got to be -- and I hate that word

boss. But somebody's got to be boss and say, well, you know what, we are not going to do this after all.

And then I'll just sit back and say, well, thank you, Jesus.

I'm serious. That's a waste of money, a waste of time -- unless somebody just needs a job to dig a hole or do whatever they got to to make the -- to make the Port. But they don't need another one. 5.7 Utilize what you have.

And I'm so glad to say that my grandson is studying to be a commercial pilot and I haven't even discussed any of this with him. But he took a language with his. That's just how interested he is in becoming a commercial pilot. And he graduated from Ohio State University and he's in the city and state of Phoenix, Arizona now learning more.

And so I say, leave it like it is.

MS. KEISTER: Thank you very much for you comment.

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(Recess taken.)

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MS. KEISTER: State your name and address, please, for the record.

MS. SHIRLEY BUTTRUM: My name is Shirley

Buttrum and I live off of Cleveland Avenue and I'm here speaking for my son Lawrence Buttrum who is at football practice with his children. He does live in the pattern. He lives at 1655 Deporres Drive which is a 43219 ZIP Code.

They had a study a couple years ago and the street next over from him, which is Argyle or Vendome, those people were included in the last study.

I just looked at your charts and they're saying that the sound barrier has decreased since that time so they have put his street even further away, which is not true. Because if you can sit in the backyard and read the names of the planes, and count how often the pattern hasn't changed, the noise has not decreased. 1.12

If you're in his home and you're on the phone, unless you shut the windows, you can't hear the person. And you can actually feel the vibration when they go over. Really, just feel it. You know, like somebody moving something over the top of your head. 1.2 1.6

Now, this is current today in 2007.

And I don't understand the study saying that the noise is less when it actually has increased. Because before you could not read the signs. We had a cookout and were in his backyard and I could read

Skybus and I could read Delta on the signs from the backyard. And that let's you know the planes are pretty close.

So I would like for them to reconsider Deporres as a noise area rather than saying it has less; to include it as having at least as much as it did when they did Argyle Drive or Vendome, not less, or even having more. And I think those people need to be considered. 3.1

I feel a lot of them are not here right now because the time of the day that this hearing is, on that street there are a lot of young people who have children that are in sports. And they're in football, they're in soccer, they're in cheerleading. So it's not that they don't care; it's just that they have to make a choice. So as a grandmother, I'm being their voice. Not only for my son, but all the other children and people that live on that street. 6.2

And I thank you for your time.

MS. KEISTER: Thank you very much.

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(Recess taken.)

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MS. KEISTER: I would like you to say your name for the Court Reporter.

MR. JAMES DAVIS: Okay. I'm James C. Davis. Should I go ahead and just say --

MS. KEISTER: Uh-huh.

MR. JAMES DAVIS: For a number of years now, okay, I have lived in Brittany Hills. In fact, I was

the first one that moved in that house. I bought it and I -- when it was built.

And it's been very disturbing, not as much now that I put some storm windows in, more insulation in my roof, but I was just able to get -- at the time, got some money and was able to get it done but before that, it was pretty, pretty bad. I'm not -- I wouldn't stop my work and come down here to just make a comment for nothing. It's bad in that area. 1.1

I know a lot of the areas over there has gotten some attention and some work from the airport. But I had been told -- I have been to a number of meetings at the Brittany Hills Recreation Center a number of times, but I had been told that we were a number two or something -- I don't know what your ratings are or anything. And it was too low for them to get any service over there.

But I'm here to tell you, you can come to my house and especially on -- sometime I have guests there and they be out there in the back and they

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frightened, they think the plane is going to hit the house. I mean, they come right over my backyard, right across and some days when it's cloudy, it's loud. I mean it's really loud. And if you watching TV, some of the cables just cut out, the picture cut out, you miss that part; if you miss it, you just miss it and you don't know what they said. 4.1 1.13 1.9

And, I don't know, I -- I don't know what to say other than, something needs to be done. I can't, you know I can't tell nobody, make nobody do anything.

But something needs to be done. There's a lot of people over there in that area, they don't come and speak out for themselves because most of them work all the time or one family -- one family house, you know, one family household. And they don't come to the meetings regularly most of the time, but they suffering with this thing just like everybody else and they paid their money for their homes just like everybody else and they pay their taxes and I pay my taxes.

And right now I'm 73 years old. I don't need to be fighting those doggone airplanes and things like that over there. I thought two or three times about going and moving and get a condo and get out of there because it was so bad. But I hate to think that they

going to run me out of my house, you know.

So I'm here and that's why I'm here and I hope that we can get some assistance in that area. Thank you very much.

MS. KEISTER: Thank you, sir. We appreciate your comment and it will be in the record.

MR. JAMES DAVIS: Okay.

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(Recess taken.)

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MS. KEISTER: Please start with stating your name.

MS. ELIZABETH ZEIGLER: My name is Elizabeth Zeigler. 1872 Bar Harbor Road.

One thing I would like to say is that the noise, oh, it's awful coming across our house. If you

1.1

on the phone, you cannot hear or even in the yard, you have to wait until it goes over, you know, after the plane go over. And they said once they was going to put a timer or something in my yard but I haven't got it, you know, to -- to attract the noise, uh-huh. They was supposed to put one in there. But they haven't put one in there yet.

1.2

But I just would like to say it is noisy and especially after they put in -- started working out

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there or something, I guess, and put in a new what -- where the plane go over, you know?

MS. KEISTER: Runway?

MS. ELIZABETH ZEIGLER: Uh-huh, runway, yeah. And it really comes -- it comes over our house, uh-huh.

And it had been doing that for quite a while, I mean, it just hasn't started. It stopped for a while and now it's back up there, yeah. And that's about it. That's about it.

MS. KEISTER: Well, thank you for sharing your comments tonight.

MS. ELIZABETH ZEIGLER: Okay, then. Thank you.

MS. KEISTER: At this point, it is 8:03 p.m. on August 14th and I'm officially closing the public hearing.

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Thereupon, at 8:03 p.m., on Tuesday, August 14, 2007, the hearing was adjourned.

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CERTIFICATE

STATE OF OHIO :
SS:
COUNTY OF FRANKLIN :

I, Teresa A. Pollard, a Notary Public in and for the State of Ohio, duly commissioned and qualified, do hereby certify that the aforesaid proceeding on August 14, 2007, was by me reduced to stenotype and afterward transcribed upon a computer; that the foregoing is a true and correct transcript of the proceedings; that the proceeding was taken at the time and place in the caption specified and was adjourned; and that I am in no way related to or employed by any attorney or party hereto, or financially interested in the action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Columbus, Ohio, on this 20th of August, 2007.

TERESA A. POLLARD
NOTARY PUBLIC-STATE OF OHIO

My Commission Expires: October 21, 2007.

- - -

IN RE: :
: :
FAR PART 150 NOISE COMPATIBILITY STUDY :
: :
PORT COLUMBUS INTERNATIONAL AIRPORT :

- - -

TRANSCRIPT OF PUBLIC HEARING

- - -

In the above-captioned matter, taken before Teresa A. Pollard, a Notary Public and Court Reporter in and for the State of Ohio, at the Whitehall Community Park, 402 North Hamilton Road, Whitehall, Ohio on Wednesday, August 15, 2007, at 5:00 p.m.

- - -

APPEARANCES

- - -

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- - -

Wednesday Evening Session,
August 15, 2007.
5:00 p.m.

- - -

MR. ADAMS: It is August 15th, 2007, 5:00 p.m. My name is Rob Adams. I'm officially opening the public hearing for the FAR Part 150 Noise Compatibility Study at Port Columbus International Airport.

There is no one here to speak at this time. So I'm going to recess the meeting until such time as

somebody would like to speak.

- - -

(Recess taken.)

- - -

MR. ADAMS: It is 8:00 p.m. I'm officially closing the public hearing.

- - -

Thereupon, at 8:00 p.m., on Wednesday, August 15, 2007, the hearing was adjourned.

- - -

CERTIFICATE

STATE OF OHIO :
SS:
COUNTY OF FRANKLIN :

I, Teresa A. Pollard, a Notary Public in and for the State of Ohio, duly commissioned and qualified, do hereby certify that the aforesaid proceeding on August 15, 2007, was by me reduced to stenotype and afterward transcribed upon a computer; that the foregoing is a true and correct transcript of the proceedings; that the proceeding was taken at the time and place in the caption specified and was adjourned; and that I am in no way related to or employed by any attorney or party hereto, or financially interested in the action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Columbus, Ohio, on this 20th of August, 2007.

_____

TERESA A. POLLARD
NOTARY PUBLIC-STATE OF OHIO

My Commission Expires: October 21, 2007.

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop/Hearing for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below by **August 31, 2007**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **August 31, 2007**.

To Public Workshop/Hearing

I agree something should be Done about The noise from The Airplane's. I'm [redacted] With The workshop IN ANYTHING they can do To cut down ON the sound (Smile) 1.1

We have needed sound proiting in our home's since I first moved out in 1961. The plane's use To scare. (Smile) NoTanymore. 3.1

Mrs Louvenia Clark

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Louvenia J. Clark

Address: 2869 E. 12th Avenue
Columbus, Ohio 43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop/Hearing for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below by **August 31, 2007**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **August 31, 2007.**

The noise from the airplanes passing over distrubs television programs and conversations inside the house during family time. If I am inside of my house, talking on the telephone and an airplane passes over I have to tell the person on the line to hold on until the plane passes because I am unable to hear. Sometime or windows shake as planes pass over the house 1.2 1.4

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Linda R Easley

Address: 2981 E 12th Ave
Columbus OHio 43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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I have lived here at 2889 E 12 since 1962 and the noise have been Real Bad. if I'm inside my houses Talking on the phone and an Airplane passes over I have to tell the person on the line To hold on. until the plane pass over and if I'm up/ Stairs in my Bedroom my windows Shake and if I'm talking to Some one out Side I Can't hear from the planes 1.1 1.2 1.4

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: LOREEN Easley

Address: 2889 E 12th ave
Columbus Ohio
43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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NOISE IS ON 2157 ARGYLE DR 1.1

STILL NOISE IS HERE CAN'T HERE MY TELL PHONE 1.2

THE SOUND TEBBILE THNK YOU ALL

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: THOMAS HAGWOOD

Address: 2157 ARGYLE DR.

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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I Agree But don't think we can
Argyle Dr Are included
we get so much Noise from
the Plane. went to Meeting but
it look hopless
We have can Right by the Runway

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Cora Johnson

Address: 1977 Argyle Dr
Columbus Ohio
43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

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To Whom it may concern:

I Live at 1889 Dunning Rd 43219. The Noise 1.1
From the planes are very disturbing. I've
lived here; over 40 yrs, My nights are 1.3
very restful. I could use some HELP!!

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Mary E. Littlefield

Address: 1889 Dunning Rd
Col OH 43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY STUDY

AUGUST 14, 2007 – OAKLAND PARK AT BRENTNELL ELEMENTARY SCHOOL

Welcome to the Public Workshop/Hearing for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below by **August 31, 2007.** Comments may also be submitted via e-mail to *radams@landrum-brown.com.* E-mail comments must be received by close of business on **August 31, 2007.**

People in my area are really suffering because of noise. I know my hearing has been affected. I need to consider hearing aid the planes come so loud it looks as though they will land on my roof. I can see the names on the plane they are so low. People on Brentnell have receive windows they plug (planes) directly over from us it don't Understand / why we don't qualified. I hope you will reconsider our situation. It will Wake up Several times every night as the planes fly over my house

1.1 1.7 4.1 3.1 1.3

Submit comments postmarked by August 31, 2007 to:

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Elnora M. Upshaw

Address: 1647 Deporres Dr.
Columbus, Ohio
43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
AUGUST 15, 2007 – WHITEHALL COMMUNITY PARK ACTIVITIES CENTER

Welcome to the Public Workshop/Hearing for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below by **August 31, 2007**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **August 31, 2007**.

I am a home owner at 3212 East Thirteenth Avenue. My home is on the border of the trapezoid. 3.7
I have been told, that approximately 35 homes within the trapezoid will be eliminated. My family and I have resided at the above address over 40 years.
I do not want a sound wall or any type of barrier near my home. A barrier would cause my property value 6.3
to depreciate. It would make it more difficult to find a buyer if I decide to sell my home in the future.

*Submit comments postmarked by **August 31, 2007** to:*

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: Patronia Thompson

Address: 3212 E 13th Ave
Columbus, Ohio
43219

COMMENT FORM

PUBLIC WORKSHOP/HEARING

PORT COLUMBUS INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY STUDY
AUGUST 15, 2007 – WHITEHALL COMMUNITY PARK ACTIVITIES CENTER

Welcome to the Public Workshop/Hearing for the Part 150 Noise Compatibility Study for Port Columbus International Airport. Public comments are an integral part of the Part 150 Noise Study process. This comment form is provided to receive your input and ensure that your concerns are considered during the conduct of this Part 150. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the meeting, or mail to the address below by **August 31, 2007**. Comments may also be submitted via e-mail to *radams@landrum-brown.com*. E-mail comments must be received by close of business on **August 31, 2007**.

7.2

A helpful + friendly crew of people

*Submit comments postmarked by **August 31, 2007** to:*

Rob Adams
Part 150 Program Manager
Landrum & Brown, Inc.
11279 Cornell Park Drive
Cincinnati, OH 45242

FROM (Please Print)

Name: _____

Address: _____

272 Sherborne Drive
Columbus, Ohio 43219
August 16, 17, 23, 24, 27, 2007

Rob Adams
Part 150 Program Manager
Landrum & Brown Inc.,
11279 Cornell Park Drive
Cincinnati, OH 45242

From my best knowledge, understanding, interpretation and perspective with regard to the Public Workshop/Hearing of the Port Columbus International Airport, Part 150 Noise Compatibility Study August 14, 2007, Oakland Park at Brentnell Elementary School **my position has not changed as stated in my letter dated: April 25, 26, 27, 28, 29, 2007, May 1, 2, 3, 4, 2007** addressed to Marion C. Blakey, Administrator, FAA 800 Independence Avenue, S.W. , Washington, DC 20591. Additionally, a copy of this letter was sent to Rob Adams, Part 150 Program Manager, Landrum & Brown, Inc., 11279 Cornell Park Drive, Cincinnati, OH., 45242.

In brief summary of my letter dated April 25, 24, 26, 27, 28, 29, 2007, May 1, 2, 3, 4, 2007 and in response to the Public Information Workshop/Public Hearing held on August 14, 2007. I remain constant in my position regarding the environmental impact of Noise Compatibility study and the Environmental Impact Study information distributed with regards to the following:

FAR Part 150 Noise Compatibility Study – Port Columbus International Airport (PCIA) Currently Approved Measures Recommended without modification NA-3: Increase nighttime use of runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1 to read as follows: My response to NA-3 of the hearing information provided is as follows:

As much aircraft pollution and aggressive invasiveness that already emulates from 10r/ 28l the best of the no alternatives is to reconstruct in current locations since moving these specially 28l some 702 feet will be more eminent and invasive and louder and louder aircraft noise pollution and environmental noise from landings, take-offs, from commercial, private and pleasure aircraft all invasive of my home and quality of life 5.2 5.1

Date: August 16, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

Local, state and national governments need to implement newer guidelines for the regulation of the environmental aircraft noise events from all aircraft – aircraft has changed but the times have not changed with the aircraft pollution and environmental effect that aircraft have on humans and the DNL 65 db needs to be lowered in accordance to the increased amount of air traffic and it affects on the human ear and body...having to contend with being awaken from sleep and can't get to sleep because of the continuous fly overs, take-offs, aircraft motor revving, landing all through the "normal" hours of sleep and the sounds of a continuous barrage of aircraft and noise pollution with the effects of a war zone...this is what comes (PCIA) from aircraft flying in my home area... an area according to the FAA environmental impact statement and the (PCIA) maps as <u>not being in the noise contour...</u>if, this is the case, and my home and neighborhood are not designated as being in the (PCIA) noise contour, then why do aircraft and the noise stemming from aircraft engines flying all times of day and night (at times flying over Harley field then making a wide sweeping turn and go northwest) fly in close proximity to my home and fly in my neighborhood? Remaining disqualified from having home insulated or buffer zones.

6.1

3.1

Should not <u>all</u> aircraft be restricted to fly <u>only</u> in the mapped area zoned as (PCIA) noise contour zones? And, particularly, stay within the (PCIA) mapped perimeter contour north of Fifth Avenue and Nelson Road and Sunbury Road at all times?

2.1

The airline, private and pleasure aircraft industry have changed dramatically in the last 30 years, the airline industry at (PCIA) has and continues to have a tremendous impact on the displacement of air waves creating environmental person disruption to my quality of life, the airline industry at (PCIA) bring not relief to me because the of a governmental described aircraft noise at level at 65 dB even when it have been proven that aircraft noise has detrimental impact on humans. It's past time for establishment of NEW legislation and enacted by the FAA that existing or new runways be built with noise absorbing materials and all aircraft must be retrofitted with noise reduction technology and all new aircraft must be built with noise reduction technology to mitigate the environmental noise and air pollution levels. the Federal Aviation Acts of 1958 and 1979 are outdated.

5.1

1.7

1.10

1.11

NO alternative for runways 10r/28l – no increase in nighttime 10:00 p.m and 8:00 a.m (these hours are for having the opportunity to obtain optimal sleep) on runway 10l/28r under any conditions except emergency landing

2.2

NO alternative for runways 10r/28l – no increase in daytime aircraft of any kind on runway 10l or 28r after 6:00 a.m. under any conditions except emergency landing

2.3

Date: August 16, 17, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

My response under NEW ALTERNATIVES RECOMMENDED NA-6 of the written hearing information provided is as follows:

NA-6 – Implement a 15 degree divergent turn off of Runway 28R, after crossing runway end to a 295 –degree heading, only during peak operating periods when traffic warrants.

Implementation will create an even more intrusive, invasive, intense and more maximized of dB's, DNL and SEL levels disrupting sleep deprivation and environmental unfriendly noise pollution to me and my home environment implement only for emergency landing –why is it that the planes cannot land on the runways north of the tower? 6.4

NA-7: When wind, weather, and operational conditions allow, nighttime (10:00 p.m.-7:00 a.m.) arrivals use visual side step approach to runway 28L

Implementation will create an even more intrusive, invasive, intense and more maximized of dB, DNL and SEL levels disrupting sleep deprivation and environmental unfriendly noise pollution to me and my home environment implement only for emergency landing –why is it that the planes cannot land on the runways north of the tower? 6.5

In response to NA-9: Construct a noise berm/wall

Construction of a berm/wall needs to take place along the whole corridor of Fifth Avenue from the old air port terminal on Fifth Avenue to Nelson Road an Fifth Avenue and up along the the CSX railroad from overpass at Stezler Road Champion and 6.6

Land Uses Measures

LU-1 Continue the CRAA's on-going program for noise insulation of non compatible structures for non compatible residences with the DNL 65+ dB contour of the year 2003 Future Condition Noise Exposure Map with program implementation in exchange for an avigation easement. The recommendation is to continue with this measure while modifying the boundary based upon Future (2012) NCP. An additional 247 housing units would be eligible for sound insulation.

My response to LU-I is as follows: Revamping and revision of the FAA's DNL 65+ db so that those outside this conditional corridor have the same and equal opportunity to qualify for noise pollution. As weather conditions determine aircraft take-offs, fly overs, landing so does the weather condition change the displacement of air waves produces by aircraft. It is evident that increased aircraft traffic equals increased environmental aircraft noise pollution events. It is evident that increased aircraft traffic will have detrimental environmental impact and continued deprivation on my ability to obtain normal sleep patterns. 3.1 1.14 1.3

LU-3: Continue a measure that has been previously partially implemented to seek cooperation from the City of Columbus and Franklin County to amend their Land Use Compatibility Standards to achieve the level of compatibility identified in the recommended Land Use Compatibility guidelines.

My response is as follows to LU-3 - As long as the amendments are not a sell out of my environmental rights and quality of life. As long as the amendments do not continue to erode and infringe upon my environmental right to peace and quiet. I would expect that any amendments that affect my quality of life would provide some means of protection and concern for me as a citizen and measures implemented that would lessen the environmental impact of the already invasive noise pollution levels stemming from aircraft of all nature flying at all times of the night and day at the Port Columbus International Airport. 6.7

NO RELOCATION OF RUNWAY 10L OR 28R ...
ANY MOVEMENT CLOSER TO FIFTH AVENUE WILL CREATE AN EVEN MORE INTRUSIVE, INVASIVE, INTENSE AND MORE MAXIMIZED OF DB'S, DNL' AND SELS' LEVELS DISRUPTING SLEEP DEPREVIATION AND ENVIRONMENTAL UNFRIELDLY NOISE IMPACT TO ME AND MY HOME ENVIRONMENT 5.4

NO ALTERNATIVE FOR RUNWAYS 10R/28L – NO INCREASE IN NIGHTIME 10:00 P.M AND 8:00 A.M ON RUNWAY 10L/28R UNDER ANY CONDITIONS EXCEPT EMERGENCY LANDING 2.2

NO ALTERNATIVE FOR RUNWAYS 10R/28L – NO INCREASE IN DAYTIME AIRCRAFT OF ANY KIND ON RUNWAY 10L OR 28R AFTER 6:00 A.M. UNDER ANY CONDITIONS EXCEPT EMERGENCY LANDING 2.3

ANY MOVEMENT CLOSER TO FIFTH AVENUE WILL CREATE AN EVEN MORE INTRUSIVE, INVASIVE INTENSE AND MORE MAXIMIZED OF DB'S, DNL' AND SELS' NOISE LEVELS DISRUPTING EVEN GREATER SLEEP DEPREVIATION AND ENVIRONMENTAL UNFRIELDLY IMPACT TO ME AND MY HOME ENVIRONMENT 5.3

NO MOVING SOUTH OF EXISTING RUNWAY 702 FEET FROM EXISTING RUNWAY 10R/28L 5.3

Date: August 16, 17, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

LU-4-LU12: Currently Columbus and Franklin County set the Airport Environs Overlay (AEO) boundary at the 65 DNL contour. This measure seeks cooperation for both parties to amend the boundaries of the AEO District to correspond to the DNL 60 dB and greater noise contours. (It is recommended that this measure be modified to include the proposed Airport Land Use Management District (ALUMD) as measure boundary).

Although I have not had sufficient time to examine, research or fully investigate implications of LU-4 thru LU12, I would hope that careful analysis and full attention also be given to my neighborhood for prospective inclusion in the home insulation program provided to those current homes and future homes that are consider within the 65dB, since it has been proven that when factored in variable of 10dB according to government variables, the variable of 10 db DNL, brings recorded dB's of 60 dB to a variable of significant to 70 dB. Thereby, placing the actual aircraft noise event at a max 10% or possibly greater. 6.8

Local government has the right to establish DNL's. I would hope the City of Columbus would rally to the rescue of citizenry such as me and not only join engage in the economic side of Airport Environs Overlay. I would expect that necessary steps to assist and to provide the opportunities to sustain a quality of life for those of us living in hazardous aircraft environmental air noise pollution and environmental pollution zones would be foremost. 3.2

RESOUNDING NO NEW TERMINAL! – This is a bandaid approach and will not remedy the situation. What will be the need in 20-30 years from now...???? Where will the expansion comes from in 20-30 years since the airport is land locked. 5.5

RESOUNDING YES!! REDUCE AIRCRAFT DEPARTING WEST AT (PCIA) ESPECIALLY DURING HOURS OF SLEEP 10:00 P.M – 7:00 A.M. 2.4

NOTHING OF NOTE INDICATED IN ANY OF THE DRAFTS INDICATING DESTRUCTION OF PROPERTY, HOMES, IMMENINT DOMAIN AND BUSINESS(ES) LOCATED WITH THE PROPOSED CHANGES FOR (PCIA) 3.4

I find myself rather in a quandary the question that constantly pops up in my mind, Why is Port Columbus International Airport not making use of all that land that sits north and northeast of the main airport and terminal since it appears that Port Columbus International Airport is so intent on a continuous noise cavern, moving aircraft environmental noise levels, aircraft pollution and congestion to the east, south and southeast of Fifth Avenue? Yet, no buffer zones, berm walls, and home insulation to areas, just as affected, as those purported within the 65dB Noise contours. 3.5

Date: August 16, 17, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

In light of the time element established on the FAR Part 150 Noise Compatibility Study Port Columbus International Airport Public Information Workshop/Public Hearing August 14/15/, 2007, that I attended on August 14, 2007, rather than dissect the following articles, summations etc, I have included in my response for your peruse at your convenience. With the volumes of information available it is nearly impossible to include all the documents I have reviewed. However, I believe the following, *The Wyle Noise Bulletin*, The Acoustics Group of Wyle Laboratories, and article, *The Environ Health Perspect*, 2005 January; 113(1): A42-A44, and

***Noise that Annoys: Regulating Unwanted Sound*, by Charles W. Schmidt, Bill Albee, Director of Special Projects with the Acoustics Group of Wyle, *Aircraft* Noise, *Wikipedia, Encyclopedia*, add credence and relevant weight to my concerns and hope for the future for remedy in the situation I face with the volume of commercial, private, and pleasure aircraft that I must endure, continues to be disruptive in my quality of life, and appears continuous as proposed under measures for 10R/28L runways at Port Columbus International Airport with no known plans of relief in order to obtain "normal" hours of sleep, rest and equilibrium.**

In an Wyle Noise Bulletin, as indicated below

The Acoustics Group of Wyle Laboratories, Inc. ...The subject of this noise bulleting is an editorial arguing that the establishment of buffer zones just outside DNL 65 dB noise contours may be the best way to achieve future land-use compatibility around all airports. It was written by William Albee, Director of Special Projects for Wyle's Acoustics Group. Early in his tenure as Manager of the Policy and Regulatory Division in FAA's Office of Environment and Energy, he was charged with managing the Stage 3 transition and seeking ways to capture buffer zones from the resulting shrinkage in noise contours. Much of those buffer zone efforts were incorporated into FAA's proposed National Noise Policy update, which is tentatively scheduled to be published in final this year.

A CASE FOR BUFFER ZONES

The Federal Guidelines

One of the primary drivers of noise controversy around airports is the lack of buffer zones between the areas near airports where noise-sensitive land use is not compatible and areas that are regarded under Federal guidelines as fully compatible for noise sensitive development. The U.S. Federal Aviation Regulations, Part 150, Land Use Compatibility Guidelines define noise-sensitive land uses above a Day/Night Average Noise Level (DNL) of 65 decibels (dB) to be non-compatible with airports, and noise-sensitive uses below DNL 65 dB are considered to be compatible "without restrictions." So on one side of that pencil thin line on a map, the FAA (and other Federal agencies) regards noise to be so intrusive that Federal funding is provided to sound insulate or possibly acquire residences and other noise-sensitive structures, such as schools, churches and hospitals. Step across that line on the map, and Federal guidelines imply that noise sensitive development is perfectly "OK" without restriction. By that logic, the resident on one side of the street qualifies for noise reduction treatments that cost the taxpayers $30-35K while the resident a few feet away on the other side of the street qualifies for nothing. Doesn't common sense and logic say that there is a gray area between these areas, where if noise-sensitive development is permitted, it should only occur "with restrictions?"

What Factors are Creating the Controversy?

The U.S. Environmental Protection Agency (EPA) said in recent comments to FAA's Environmental Impact Statement for the expansion of a runway at Fort Lauderdale-Hollywood International Airport that more steps must be taken to protect neighborhoods from expected increases in airplane noise. Airport plans call for buying out all homeowners within the DNL 70 dB contour and the sound insulation of residences in the DNL 65 to 70 contours, but the EPA said homes with the DNL 65 dB contour should be bought out rather than sound insulated. In EPA's view, the noise burden is so significant, that acquisition rather than sound insulation is necessary at exposure levels above DNL 65 dB around that airport. Yet they offer no comment regarding existing or future noise sensitive development just outside that contour. What were they thinking? How can it be so bad on one side of that line that EPA believes that residents should be removed at Federal expense, but on the other side of that line they offer no recommendations or even advice for restrictions or mitigation?

The reality is that under the Constitution, U.S. Federal agencies must leave it entirely up to state and local jurisdictions to establish local noise standards and to decide if they want to impose any restriction on development at, above or below the "significant" noise impact threshold of DNL 65 dB. Local jurisdictions are faced with pressure from developers and the need to maximize their tax bases to develop right up to the non-compatible noise boundary. They have little incentive to establish buffer zones just outside the DNL 65 dB contours to address the considerable or "moderate" noise exposure in those areas, because many will be out of office by the time these areas are developed and the new residents begin to complain about the noise. It is convenient to approve the development and then blame the Federal land use compatibility guideline when citizens residing in these adjacent areas complain.

How Much Buffer is Enough?
When considering local noise standards for noise overlay zoning around airports it would seem logical for all affected jurisdictions in cooperation with the airport officials to either:

(1) Define a long-range (20+ years) noise exposure area (contour) within their respective jurisdictional boundaries that includes a reasonable buffer zone so that noise-sensitive development would not likely be controversial immediately adjacent to the noise exposure area boundary, or (2) Define a noise exposure boundary within which no new noise-sensitive development is permitted, and define one or more outer boundaries to create a buffer zone(s) in which new noise sensitive development is permitted, but only if specified restrictions are met. Such restrictions might include avigation easements, extra sound insulation, and/or real estate disclosure of noise exposure levels prior to the transfer of the property. The outermost boundary should be the locally determined noise exposure contour beyond which noise-sensitive development is deemed to be fully compatible without restriction.

Two major U.S. airports -- Minneapolis and Cleveland – recently recognized that noise below DNL 65 dB must be acknowledged and addressed. Both have chosen to extend their sound insulation programs out to the DNL 60 dB noise contour, with at least a minimal treatment program. These actions constitute a buffer through the establishment of a local airport noise exposure standard of DNL 60 dB, rather than the usual deference to FAA's DNL 65 dB guideline.

WYLE NOISE BULLETIN #15: A CASE FOR BUFFER ZONES 2003-02-27 12:54:00 <Wyle Acoustics Group>

Environ Health Perspect. 2005 January; 113(1): A42–A44.

Environ
Spheres of Influence

Noise that Annoys: Regulating Unwanted Sound

Charles W. Schmidt

One thing that's certain is that there's a causal link between sleep disturbance and noise," says Eric Zwerling, director of the Rutgers University Noise Technical Assistance Center. "And there's no question that sleep disturbance results in a loss of productivity and efficiency and a greater potential for accidents." Zwerling says his views are backed by evidence provided by the EPA in its seminal 1974 guidance known most commonly as the "levels document."

For its part, the FAA claims to have lessened the impact of aircraft noise by requiring quieter "Stage III" engines on planes that weigh 75,000 pounds or more. The requirement for Stage III engines on larger aircraft was imposed by the Airport Noise and Capacity Act (ANCA) of 1990, which also created a mechanism for airports to follow if they wanted to restrict the remaining older, louder Stage I or II planes weighing less than 75,000 pounds. A spokesperson with the FAA Office of Public Affairs says that in 1975, with 250 million people flying a year, there were 7 million people affected by aircraft noise.

Today, 700 million people fly each year, but the FAA estimates 600,000 people are affected by noise (although Blomberg says most experts outside the FAA think this number is far too low).

The validity of the FAA's numbers has no bearing on flight frequency, which has increased 40% since 1990, according to the U.S. Bureau of Transportation Statistics. And flight frequency is among the problems most often cited by those who suffer from aircraft noise. Moreover, under ANCA, Stage III engines are not required for planes that weigh less than 75,000 pounds, which include corporate jets and other aircraft whose use is steadily rising. Kirsch is now involved in a pivotal case in Naples, Florida, where in 2001 the local airport successfully used the ANCA procedures to ban the loud Stage I and II planes that are lighter than the law's weight limit. Ever since, Kirsch has fought a protracted legal battle with the industry and the FAA, which is struggling to overturn the ban and reintroduce the louder aircraft against the desires of both the community and the airport itself.

Date: August 16, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

Bill Albee is Director of Special Projects with the Acoustics Group of Wyle Laboratories in Arlington, VA, USA.

When the land inside the current and future noise contours is already built out with noise sensitive uses, there are few mitigation measures available that will actually reduce noise exposure. One is to develop high-resolution noise abatement flight tracks dependent on advanced navigation technology to thread the needle through populated areas using available compatible corridors, such as highways, railroads, rivers and vacant land. A highly effective, but costly measure is acquisition by the airport of the adjacent property that is subject to the highest noise levels. The option most extensively applied around the United States is residential sound insulation. Acquisition of avigation easements and requirements to disclose noise impacts to potential buyers are available options that do not reduce noise exposure, but are viable measures that should be strongly considered in every airport's noise compatibility program.

In my view, if starting now, noise disclosure were required nationwide for every property transaction inside a DNL 55 dB airport noise contour, in about 20 to 30 years, the majority of the highly noise sensitive people residing inside those contours will have moved on, and the new owners will have been forewarned of the noise levels. This measure has the added benefit of implementation with no expenditure of tax dollars. So why hasn't it been widely implemented? Most people fear a decrease in property values if they must disclose noise impacts; but in truth, the true value of a property is reflected only when all material conditions are known to the potential buyers. Opponents have successfully precluded adoption of noise disclosure in many, but not all jurisdictions. Orlando, Fla. recently succeeded in passing a zoning ordinance that requires noise disclosure for all property transfers inside the DNL 55 dB contour. Raleigh/Durham Airport successfully used a 1998 change in state law to directly impose disclosure within the DNL 55 dB noise contour around the airport. Airport staff there report very few complaints about the disclosure requirement, and there has been no apparent impact on property values. Local Realtors favor the disclosure requirement because they no longer receive complaints that they failed to disclose the airport noise impact. These communities, at least by this criterion, have clearly established DNL 55 dB as their local noise standard.

Minneapolis and Cleveland have recently taken steps to formally establish DNL 60 dB as their local threshold for compatible land use. Both announced programs to expand their Part 150 residential sound insulation programs to the DNL 60 dB contour line. But will the FAA approve the use of Federal funds for sound insulation programs outside of DNL 65 dB noise contours? The answer is yes! Cleveland's Part 150 Update (see http://www.faa.gov/arp/app600/14cfr150/roacle.htm) contains a measure to sound insulate residences within or contiguous to the 60 DNL band of the NCP noise contours. FAA approved the measure in August, 2000 on the basis that the airport operator has adopted the DNL 60 dB noise contour as the designation of noncompatible land use, thus making the measure fully eligible for AIP or PFC funding.

FAA approval hinges on the distinction between compatible and noncompatible land use. Therefore, airport and local officials must clearly establish a local standard for compatible land use below FAA's DNL 65 dB guideline if they wish to obtain FAA funding approval for mitigation projects to achieve their lower standard. The footnote to the land use compatibility table in FAR Part 150, appendix A says: "The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, state or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with local authorities. FAA determinations under part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses."

A key passage in the FAA's proposed noise policy update, which was published for comment in the FR on July 14, 2000, states that the FAA will support efforts to establish local noise standards and that the FAA will recognize those standards in Part 150 noise compatibility programs. Hopefully, that commitment will encourage local officials and concerned citizens to engage in the necessary process to establish a local land use noise compatibility standard for airport noise that accurately reflects the community's opinions and values. In general, everyone wants their local economy to grow and we all want affordable, efficient aviation services; but at the same time affected citizens also demand continuing reductions in noise impacts. I believe that establishment and enforcement of a local land use compatibility standard for airport noise is the key ingredient in achieving a lasting balance between these competing demands. The alternative for those communities near airports that fail to use their zoning authority to establish a widely accepted airport noise standard is ever growing conflict with their airport and air carriers. Unresolved, these conflicts lead to more delays, fewer choices, higher fares and fees, and in the worst cases, protracted litigation over noise impacts.

-END-

By William Albee, Special Projects Director
03/01

Aircraft noise

From Wikipedia, encyclopedia

The annoyance effects of aircraft noise are widely recognized; however, aircraft noise is also responsible for a significant amount of hearing loss as well as a contributor to a number of diseases. Only in the early 1970s did aircraft noise become a widespread topic of concern in the U.S. and federal regulations began to recognize the significance of abating these impacts in the vicinity of major commercial airports. High levels of aircraft noise that commonly exist near major commercial airports are known to increase blood pressure and contribute to hearing loss. Some research indicates that it contributes to heart diseases, immune deficiencies, neurodermatitis, asthma and other stress related diseases. Further research is being carried out to better understand these effects.

Prior research indicates clearly that hearing loss is less a product of aging than a result of exposure to transportation related noise (Rosen, 1965). Any sound louder than normal conversation can damage the delicate hair cells in the cochlea, the structure in the inner ear that converts sound waves into auditory nerve signals. Initially damage to the cochlea may be temporary, but with repeated exposure, the damage becomes permanent and tinnitus maybe develop. More recently the Centers for Disease Control and Prevention's (CDC) National Center for Environmental Health (NCEH) conducted an analysis to determine the prevalence of hearing loss among children using data collected from 1988-1994 in the Third National Health and Nutrition Examination Survey. The analysis indicates that 14.9% of U.S. children have low or high frequency hearing loss of at least 16 dB hearing level in one or both ears.

· The Part 150 regulations establish the measure for determining noise exposure from airport operations as the "Yearly Day-Night Average Sound Level" (known as YDNL or Ldn). The is the 24-hour average sound level for the midnight-to-midnight period obtained, after adding 10 decibels for aircraft events occurring during the nighttime period (10 p. m. to 7 a. m.), averaged over a 365-day period. The 10-decibel penalty for nighttime events establishes, in effect, a condition where one nighttime event becomes the equivalent of 10 daytime events of the same sound level. The Ldn measure attempts to approximate the average cumulative

Date: August 16, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

I have stated my views prior and as stated my views remain in tact with regards environmental aircraft noise pollution and polluted environment that is created by all aircraft.

I believe my concerns regarding the continuous and any future changes to Port Columbus International Airport 10r/28L and commercial, private and pleasure aircraft taking off, landing, over flights, revving of engines, aircraft taxing all have and will continue to disengage my ability to have restful, sleep nights within the boundaries of "normal sleeping hours" 10:00 p.m.-7:00 a.m. Many, Many night I cannot get to sleep because of planes flying in, out of, or over flight activities associated with Port Columbus International Airport. Many, many nights I cannot get to sleep because of "pleasure" planes flying directly over my home, in the northeast quadrant air space of my home and to the immediate south airspace of my home. And, the aircraft are not police helicopters nor emergency helicopters landing at the nearby hospital as I have been told by (PCIA) personnel. I know the difference. If and when I am able to get to sleep, aircraft noise activities related the operations at Port Columbus International Airport awaken me all through the night as I indicated in my letter dates April. I am awaken to thunderous roaring of engines and droning of engines stemming directly from Port Columbus International Airport. I am awaken by thunderous roaring engines flying inside and outside the designated 65 dB air space (night variable factors exceeding DNL's), in close proximity to my home and this corridor of intense aircraft noise is excruciating to my spirit and wellness. I am awaken or cannot get to sleep, period, by those aircraft activities directly related to those who chose to "take in the city at night, out to get their aircraft night time flying hours in, aircraft pleasure seeker not caring about others such as myself since they are not doing their flying in and around their "home turf" and their neighborhood. 1.3

I do not believe that the FAR Part 150 Noise Compatibility Study Port Columbus International Airport addresses or produces findings that equate to those neighborhoods outside the 65 dB that are impacted by aircraft environmental noise pollution. I believe additional research and in depth analysis is necessary to identify the commercial, private and pleasure aircraft environmental impact upon those homes adjacent to (PCIA) and in the noise corridor window of the 65dB. Obviously, variables, factors and aerodynamics are in effect for the mechanics of aircraft flying dimensions as to when and how they fly. On the same hand, variables inclusive of health and well being are in effect for those such as myself who live in these aircraft environmental noise pollution zones. 6.9

Date: August 16, 23, 24, 27, 2007
Re: FAR Part 150 Noise Compatibility Study
Port Columbus International Airport
Public Information Workshop/Public Hearing August 14/15/, 2007

My desire is to have the disruption to my quality of life created by air traffic patterns and aircraft activity stemming from Port Columbus International Airport diminished. I need not reiterate, but it is necessary, I object to Runway 28R being moved 2 feet let along 702 feet south to Fifth Avenue. I object to Stage 3 engines using either 10L or 28R between the hours of 10:00 p.m. and 1:00a.m. I object to the lack of consideration To the human side in aircraft environmental noise pollution being permitted at all times of the night, in the middle of the night, mid early morning, mid early mornings etc. hours between 10:00 p.m. and 7:00 a.m. Cars are not permitted to operate within mufflers. There is technology in place that can accommodate and bring about quieter sound of aircraft engines. Why, has this technology not been instituted and enforced? 5.4 2.5 5.6 1.11

I know that I am not alone in my quest for relief from aircraft noise pollution as many across our nation have filed such concerns. My desire remain and is for relief, to be able to sleep and feel rested upon rising, relief from the disturbance of commercial, private and pleasure aircraft flying all times of the night, middle of the a.m., early a.m. and that rapid change comes about from our government to produce new legislation that would bring about lower levels of aircraft dB's and assist those of us who suffer and in the realization of today's air traffic. I deserve a co-existent descent quality of life.

Madelaine C. Gentry

cc: Marion Blakey, FAA
U.S. Department of Transportation
800 Independence Ave., SW
Washington, DC 20591

Columbus Regional Airport Authority
c/o David Wall, A.A.E., Captial Program Manager
4600 International Gateway
Columbus, Ohio 43219

272 Sherborne Drive
Columbus, Ohio 43219
August 31, 2007

Rob Adams, Part 150 Prog. Mgr.
Landrum & Brown Inc,
11279 Cornell Park Drive
Cincinnati, Ohio 45242

Attention: Mr. Rob Adams:

My response to the August 14, 2007, FAR Part 150 Noise Compatibility Study Port Columbus International Airport Workshop/Public Hearing (FAR 150 Noise Compatibility Study (PCIA) Workshop/Public Hearing) was mailed to your attention on August 28, 2007. I am sure it has reached your office at this time.

Due to equipment technical difficulties I was unable to complete communications to others that I intended to provide information to about the (FAR Part 150 Noise Compatibility (PCIA)Workshop/Public Hearing) regarding my concerns and information pertain to the August 14, 2007 Workshop/Public Hearing.

I have now had the opportunity to carry out my initial plan in submitting my response information to my local government leadership. As a courtesy and for the record, I am sending you copies of cover letters (only) sent to each and to each one I also sent a copy of my response to the FAR Part 150 Noise Compatibility Study Port Columbus International Airport Workshop/Publics Hearing from my attendance on August 14, 2007.

I remain optimistic that change and relief will come in the dissipation of my distress in association with the (PCIA) commercial, private and pleasure aircraft environmental noise disturbances.

Madelaine C. Gentry

Enclosures: Copy of Letter to The Honorable Michael Coleman
Mayor, City of Columbus
The Honorable Joyce Beatty
Ohio House Representative, District 27th
Mr. Michael Mentel
President, City of Columbus City Council

272 Sherborne Drive
Columbus, Ohio 43219
August 31, 2007

Honorable Mayor Michael Coleman
City of Columbus
65 South Front Street
Columbus, Ohio 43219

Honorable Mayor Michael Coleman:

I am writing to you in my belief that it is important for you to know the affects and impact that the Port Columbus International Airport (PCIA) has and continues to have on my quality of life. Commercial, private and pleasure aircraft all create environmental engine noise pollution, e.g. take-offs, landing, fly-overs, and the rebound of the revving of engines, stemming from activities at (PCIA) day and night. Of grave and greatest concern are the activities of aircraft noise pollution occurring during what is considered "normal hours of sleep" (10:00 p.m. – 7:00 a.m.). The aircraft noise pollution is horrendous and I, and my home, continue to be engaged in a battle zone atmosphere of aircraft noise pollution that is disruptive in obtaining quality sleep, disruptive to my to my quality of life and disruptive to my well-being.

Enclosed you will find a document (document has been sent to Mr. Rob Adams, Project Manager, Part 150 Noise Study. (Unfortunately, your name does not appear under the cc: due to equipment technical difficulties at the last minute, it is regrettable. I was also faced with a timeline to get my document in the U.S. mail to Mr. Adams before August 31, 2007). Nonetheless, I will notify Mr. Adams that I have sent a copy of my document to you. I believe my document will provide to you an overview of my on going concerns for my well being in relationship to the present aircraft environment pollution stemming from (PCIA) and equally important my deep concerns for proposed changes at (PCIA). Within my enclosed response dated August 28, 2007, are also several supporting articles in relationship to aircraft environment noise and the implication on ones health and to the environment in general.

Peaking particular interest, (see Wyle Noise Bulletin #15: *A CASE FOR BUFFER ZONES*, referenced in my response), relevance to the authority that local government has over establishing dB levels. I am sure you already know that Minneapolis and Cleveland have taken steps in redefining their "aircraft noise contour dB" making headway into allowing those homes formerly considered out of the FAA designated "aircraft 65dB noise contour", now eligible for qualifying under the FAA program home insulation.

I understand the importance of progress, the need for a thriving vital economy, forecast, trends, projections etc. with regards to Port Columbus International Airport. I do not believe that I should continue to be subjected to aircraft noise pollution and the increasing ensuing risk of aircraft noise pollution because the FAA has set the aircraft noise contour DNL at 65 dB. As those homes designated as being within the 65 DNL dB are entitled to enhancement to their quality of life via the FAA home sound insulation program, my home which is located outside of the current established and mapped FAA and (PCIA) 65DNL, deserves to have, if not, equal access for consideration of sound home insulation, and/or opportunities offered via my local and national governments that would be alternative(s) buffers to reduce the aircraft noise pollution impact I now endure.

More so, I am sure you are aware there are proposed changes as denoted in the FAR Part 150 Noise Compatibility Study Port Columbus International Airport. I attended the FAR Part 150 Noise Compatibility Study on August 14, 2007, held at Oakland Park @ Brentnell School, Columbus, Ohio. Within the contents of the FAR Part 150 Noise Compatibility Study handout that evening is the continuing proposed changes indicative of moving Runway 28L 702 feet to the south toward Fifth Avenue. I shutter at the thought of Runway 28L moving 2 feet let alone 702 feet south of its current location. If what I am experiencing now is any indication, moving Runway 28L at (PCIA) will increase the bombardment and proximity of environmental aircraft noise pollution stemming from (PCIA) commercial, private and pleasure aircraft creating greater assault to my quality of life and well being.

Date: August 31, 2007
RE: Port Columbus International Airport Environmental Noise and
Attachment: FAR150 Noise Compatibility Study Port Columbus International
Workshop/Public Hearing August 14/15/2007

My desire is for relief from the continuous aircraft noise pollution emulating from aircraft take offs, landings, over flights, pleasure planes flying, all hours (10:00 p.m.) on and (12 a.m - 7:00 a.m.) of the wee early morning, mid wee hours of early morning, and into the latter wee hours of the morning etc, and the revving of engines in associated activities with Port Columbus International Airport needs to be curtailed during "normal hours of sleep" (10:00 p.m. – 7:00 a.m.) now, in the near and long term future through NEW laws from local, state and national governments. As aircraft traffic, aircraft travel, and aircraft patterns have demographically changed, I believe the challenge is before my local government, as well as, state and national governments to redefine acceptable dB, DNL and SEL levels stemming from aircraft that have increasingly invaded personal and residential space.

When I moved into my current resident 27 years ago, it was the quietness of the neighborhood that draw us there. Nights and morning as the saying goes, "you could hear a pin drop" . Unfortunately, that tranquility is disturbed with the constant barrage and drone of (PCIA) aircraft environmental noise pollution.

My residential home falls outside of the aircraft 65DNL noise contour percepts. I seek relief from aircraft environmental noise activities associated with Port Columbus International Airport. I hope you can assist in determining solutions/alternatives to combat the overwhelming aircraft environmental noise pollution occurring weekdays and weekends from commercial, private and pleasure aircraft flying, aircraft take offs, flight patterns, fly overs, revving of engines that can be heard at my home stemming from (PCIA) that all take place during critical "normal hours of sleep" (10:00 p.m.-7:00 a.m.). I find it compelling and ironic that my home is categorized as being outside of the Port Columbus International Airport 65dB noise contour. Yet, there is so much commercial, private and pleasure aircraft traffic environmental noise in close proximity to my home.

I close on a note of high hope that during your tenure in office and in union with other city, state and federal legislators you will begin the process in pursuing and enacting changes to our City of Columbus Port Columbus International Airport 65dB DNL and associative aircraft levels to align aircraft noise levels in optimal compatibility to today's residential areas in relationship to home dwellings in proximity and perimeter to (PCIA). I am hopeful that the City of Columbus will conduct its own study, research and investigation in conjunction with the FAR Noise Compatibility Study Port Columbus International Airport Public Workshop/Hearing presented on August 14, 2007. I am looking forward to resolution of the (PCIA) aircraft environmental noise pollution and equilibrium to my quality of life and well being.

Respectfully submitted,

Madelaine C. Gentry

Enclosure: Copy of response sent to Mr. Rob Adams, Proj. Mgr. re:
FAR 150 Noise Compatibility Study Port Columbus International Airport
Workshop/Hearing attended August 14, 2007

cc: Ohio House of Representatives, c/o Honorable Joyce Beatty, District 27th
77 South High Street, Columbus, Ohio 43215
City of Columbus City Council, c/o Mr. Michael Mentel, President
90 West Broad Street, Columbus, Ohio 43215
Mr. Rob Adams, Part 150 Prog. Mgr., Landrum & Brown Inc,
11279 Cornell Park Drive, Cincinnati, Ohio 45242

272 Sherborne Drive
Columbus, Ohio 43219
August 31, 2007

Ohio House of Representatives
c/o Honorable Joyce Beatty, District 27th
77 South High Street – 14th Floor
Columbus, Ohio 43215

To The Honorable Joyce Beatty:

I am providing information to you that I hope will give you an opportunity to review my concerns to the environmental aircraft noise pollution with regards to commercial, private and pleasure aircraft activities in association with the Port Columbus International Airport (PCIA) located in the within the city of Columbus.

My enclosed information to you is self explanatory and will provide you with an overview of my deep concerns of (PCIA) environmental aircraft noise pollution to my quality of life and well being.

As I have indicated in my letter to The Honorable Mayor Michael Coleman, I hope that legislators as you will have an opportunity to become involved in making changes to the current standards of established 65dB DNL noise contour levels.

I find it compelling and ironic that my home is categorized as being outside of the Port Columbus International Airport 65dB noise contour. Yet, there is so much commercial, private and pleasure aircraft traffic environmental noise in close proximity to my home.

Respectfully submitted,

Madelaine C. Gentry

Enclosure: Copy of letter to The Honorable Mayor Michael Coleman

Copy of response sent to Mr. Rob Adams, Proj. Mgr. re:
FAR 150 Noise Compatibility Study Port Columbus International Airport
Workshop/Hearing attended August 14, 2007

cc: Mr. Rob Adams, Part 150 Prog. Mgr., Landrum & Brown Inc,
11279 Cornell Park Drive, Cincinnati, Ohio 45242

272 Sherborne Drive
Columbus, Ohio 43219
August 31, 2007

City of Columbus City Council
c/o Mr. Michael Mentel, President
90 West Broad Street
Columbus, Ohio 43215

To Mr. Michael Mentel:

I am providing information to you that I hope will give you an opportunity to review my concerns to the environmental aircraft noise pollution with regards to commercial, private and pleasure aircraft activities in association with the Port Columbus International Airport (PCIA) located in the within the city of Columbus.

My enclosed information to you is self explanatory and will provide you with an overview of my deep concerns of (PCIA) environmental aircraft noise pollution and the effect it has on my quality of life and well being.

I hope you and the City Council of Columbus can join with the Honorable Mayor Michael Coleman in bringing about needed changes and realignment of the current standards of established 65dB DNL noise contour levels in place now for (PCIA).

I find it compelling and ironic that my home is categorized as being outside of the Port Columbus International Airport 65dB noise contour. Yet, there is so much commercial, private and pleasure aircraft traffic environmental noise in close proximity to my home.

Respectfully submitted,

Madelaine C. Gentry

Enclosure: Copy of letter to The Honorable Mayor Michael Coleman

Copy of response sent to Mr. Rob Adams, Proj. Mgr. re:
FAR 150 Noise Compatibility Study Port Columbus International Airport
Workshop/Hearing attended August 14, 2007

cc: Mr. Rob Adams, Part 150 Prog. Mgr., Landrum & Brown Inc,
11279 Cornell Park Drive, Cincinnati, Ohio 45242

RESPONSE TO COMMENTS

	Comment	Response	Commenter
1.1	Aircraft Noise is too loud where I live.	A disadvantage of residing near an airport is that aircraft are likely to fly over the area and result in noise. The FAA has developed guidelines for determining land use compatibility with certain noise levels. In general, noise levels below 65 DNL are considered compatible with all land uses. Above 65 DNL, residential land uses are not considered compatible. Homes that are within the 65 DNL of the Future (2012) Noise Compatibility Plan noise contour map could be eligible for sound insulation once this Noise Compatibility Plan is approved by the FAA and funds become available.	Elinora M. Upshaw, Linda R. Easley, Loreen Easley, Thomas Hagwood, Cora Johnson, Mary E. Littlefield, Madelaine C. Gentry, Jessie M. Howard, Dossette Moore, Eleanor M. Miller, Jane Hudgins, James Davis, Elizabeth Zeigler, Louvenia J. Clark
1.2	Aircraft noise disturbs conversations and other activities.	A disadvantage of residing near an airport is that aircraft are likely to fly over the area and result in noise. Many studies of human response to noise have been performed. These studies have concluded that 45 dB is the highest steady noise that allows normal conversation throughout an average room with 100 percent sentence intelligibility. The weatherproofing found in a typical cold climate home, with doors and windows closed, can reduce outdoor noise levels by approximately 20 dB or more. Therefore, in order to achieve 100 percent intelligible speech indoors, the preferred maximum outdoor steady noise level is 65 dB or less.	Linda R. Easley, Loreen Easley, Thomas Hagwood, Jesse M. Howard, Shirley Buttrum, Elizabeth Zeigler,
1.3	I cannot sleep because of aircraft noise. Aircraft noise wakes me up when I'm trying to sleep.	Sleep disturbance due to aircraft noise can be a major concern of residents living near an airport. The extent to which environmental noise disturbs individual sleep patterns varies. The DNL metric is designed to take higher sensitivity to nighttime noise into account by applying a 10 dB penalty to flights that occur between 10:00 p.m. and 6:59 a.m. Therefore, the concern that the commenter is expressing is being taken into consideration in the study. The CRAA and the FAA ATCT have implemented flight procedures during the nighttime hours designed to minimize flights over non-compatible areas.	Elinora M. Upshaw, Madelaine C. Gentry, Jane Hudgins
1.4	Aircraft noise rattles the windows at my house.	Aircraft engines produce low-frequency noise, which can cause noticeable vibrations in the air. This is a disadvantage of residing near an airport.	Linda R. Easley, Loreen Easley

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
1.5	The noise is very loud to the extent that my chair is rocking and my dishes and things rolling on the windows. And the walls and things and my ceiling are cracking and when the man came out to do the inspection of my house, he said due to the planes and the years, that they're pulling the rafters from the wall -- from the ceilings. And that's going to be a problem. I'm going to have to get that fixed. But he said, due to the planes over the years. And I'm very concerned.	Several studies have investigated the physical affects of aircraft noise on buildings. Aircraft engines produce low-frequency noise, which cause noticeable vibrations in the air. However, there is no conclusive evidence linking aircraft noise to structural damage to homes or other buildings. Cracks in ceilings and walls are not uncommon and are typically due to the foundation settling over time.	Jane Hudgins
1.6	You can actually feel the vibration when they go over. Really, just feel it. You know, like somebody moving something over the top of your head.	Aircraft engines produce low-frequency noise, which can cause noticeable vibrations in the air.	Shirley Buttrum
1.7	Aircraft noise has detrimental affects on human health, including contributing to hearing loss, increased blood pressure, and increased stress.	Numerous studies have shown that health reactions such as increased adrenaline production, hypertension, cardio-vascular health, and mental health are linked to aircraft noise; however, these studies are inconclusive as to the actual effect of such exposure. Because no such conclusions have been made, the EPA and FAA have encouraged additional study on the subject. Currently the Federal standard for determining a significant noise impact on noise-sensitive land uses is 65 DNL.	Elinora M. Upshaw, Jessie M. Howard, Jane Hudgins, Madelaine C. Gentry
1.8	The noise monitoring devices that they (the CRAA) have put up in Brittany Hill area and I would like to know how often do the community get an update of the results of those noises comparable to when the airport is busiest, like on holidays. I would really like to have each individual household that's involved in these overlay - airplane overlays to be given some type of report of what the monitors that have been placed in our community, what kind of results are they telegraphing of airport use and noise.	Results from the twelve permanent noise monitors are included in Appendix B of this document.	Alfonso Hooper
1.9	If you're watching TV, some of the cable just cut out, the picture cut out, you miss that part; if you miss it, you just miss it and you don't know what they said.	Aircraft overflights are not known to cause disruptions in cable television signals.	James Davis

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
1.10	It's past time for establishment of new legislation and enacted by the FAA that existing or new runways be built with noise absorbing material.	We are unaware of any such noise absorbing material for runway construction.	Madelaine C. Gentry
1.11	All aircraft must be retrofitted with noise reduction technology and new aircraft must be built with noise reduction technology to mitigate the environmental noise and air pollution levels. The Federal Aviation Acts of 1958 and 1979 are outdated.	As of December 31, 1999 all commercial aircraft weighing more than 75,000 lbs. are required to meet Federal Stage 3 certification have done so. Your comment regarding the Federal Acts of 1958 and 1979 are noted and have been made part of the official record.	Madelaine C. Gentry
1.12	The information presented at the meeting shows that the noise contours have decreased in size but noise levels have not decreased.	The existing noise contours shown on the Existing (2006) Noise Exposure Map created for this Part 150 Noise Compatibility Study show that the 65 DNL noise contour has decreased from what was disclosed in previous Part 150 Studies. This decrease is due in large part to improvements in aircraft engine technology and the replacement of older louder aircraft with quieter regional jet aircraft by many of the airlines that operate out of CMH.	Shirley Buttrum, Jessie M. Howard
1.13	They (aircraft) come in right over my backyard, right across and some days when it's cloudy its really loud.	Generally, aircraft on arrival are at lower altitudes as they approach the runway than departing aircraft. Additionally, during cloudy weather, the noise from arriving aircraft is amplified by the vibrations reflecting off the clouds.	James Davis
1.14	As weather conditions determine aircraft take-offs, flyovers, landing so does the weather condition change the displacement of air waves produced by aircraft.	It is true that weather conditions can affect the noise levels around an airport. The FAA takes that into consideration by requiring that the noise contours represent an average annual day of operations and include weather conditions over the course of the year at CMH.	Madelaine C. Gentry
1.15	None of our concerns have been addressed over the years as far as the sound insulation program.	The CRAA has enacted a policy to offer sound insulation to all homes within the 65 DNL noise contour and has made every attempt possible to provide sound insulation to all eligible homes.	William H. Adams
1.16	They (the CRAA) put a noise monitor in my backyard and they said that the noise wasn't quite high enough.	The CRAA conducts noise monitoring to provide information on noise levels in addition to the Noise Exposure Maps. The FAA will not accept monitored noise levels as a basis for determining eligibility for mitigation in place of the noise contours. According to the Future (2012) Noise Exposure Map / Noise Compatibility Plan, this location is outside of the 65 DNL and therefore not eligible for sound insulation.	Dossette Moore

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
2.1	Should not all aircraft be restricted to fly only in the mapped area zoned and (PCIA) noise contour zones? And, particularly, stay within the (PCIA) mapped perimeter contour north of Fifth Avenue and Nelson Road and Sunbury Road at all times?	The noise contours show noise impacts at levels of 60, 65, 70, and 75 DNL. While the noise contours are a function of the locations of actual aircraft flight paths and altitudes, the noise contours do not show areas within which aircraft flight is restricted. Maps showing actual flight paths and flight paths modeled for the development of noise contours are included in Appendix C of this document.	Madelaine C. Gentry
2.2	No alternative for runways 10R/28L - no increase in nighttime 10:00 p.m. and 8:00 a.m. (these hours are for having the opportunity to obtain optimal sleep) on runway 10L/28R under any conditions except emergency landing.	Measure NA-3 was approved in the 1999 Part 150 NCP and is being recommended for continuation in this Part 150 Update. This measure implemented air traffic procedures which were designed to keep the noisiest aircraft on the south runway (Runway 10R/28L) during the nighttime. The DNL metric is designed to take higher sensitivity to nighttime noise into account by applying a 10 dB penalty to flights that occur between 10:00 p.m. and 6:59 a.m. Therefore, the concern that the commenter is expressing is being taken into consideration in the study.	Madelaine C. Gentry
2.3	No alternative for runways 10R/28L - no increase in daytime aircraft of any kind on runway 10L/28R after 6:00 a.m. under any conditions except emergency landing.	There is no specific recommendation to increase daytime operations on Runway 10L/28R. However normal growth would cause total operations at CMH to increase. The CRAA has no control over the times of day that airlines schedule flights. This projected increase in operations is accounted for in the noise contours included in the Future (2012) Noise Exposure Map / Noise Compatibility Plan. Therefore, the concern that the commenter is expressing is being taken into consideration in the study.	Madelaine C. Gentry
2.4	Reduce aircraft departing west at PCIA (CMH) especially during hours of sleep 10:00 p.m. to 7:00 a.m.	Measure NA-4: *Maximize east flow and amend FAA Tower order CMH ATCT 7110.1b and the Airport Facilities Directory to reflect implementation of the "east flow" informal preferential runway use system,* recommends maximizing east flow so that the number of aircraft departing to the west would decrease.	Madelaine C. Gentry
2.5	I object to Stage 3 engines using either 10L or 28R between the hours of 10:00 p.m. and 1:00 a.m.	Approved Measure NA-3 restricts Stage 3 aircraft on Runway 10L/28R during the hours of 1:00 a.m. and 6:00 a.m. This measure was implemented in the tower order to read *jet aircraft with Stage 3 engines may use Runway 10L or 28R after 0700*. As implemented, pilots had the ability to request the north runway and were given the north runway after being advised of the noise sensitive nature of the runway.	Madelaine C. Gentry
2.6	It is evident that increased air traffic equals increased environmental aircraft noise pollution events.	It is true that aircraft operations are projected to increase in the future at CMH. This projected increase in operations is accounted for in the noise contours included in the Future (2012) Noise Exposure Map / Noise Compatibility Plan.	Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
3.1	The residential sound insulation program should be extended to include my home or neighborhood. I don't understand why my home is not included in the sound insulation program when the noise levels are so high.	The residential sound insulation program boundaries are based upon the approved Noise Exposure Map (NEM) which are being updated by this Part 150 Noise Compatibility Study. The FAA will not approve funding for mitigation activities such as sound insulation beyond the 65 DNL noise contour of the NEM.	Jessie M. Howard, Eleanor M. Miller, Alfonso Hooper, William A. Banks, Shirley Buttrum, Madelaine C. Gentry, Dossette Moore, Eleanor M. Miller, Elinora M. Upshaw, William H. Adams, Louvenia J. Clark
3.2	Local government has the right to establish DNL's, I would hope the City of Columbus would rally to the rescue of citizenry such as me and not only join engage in the economic side of the Airport Environs Overlay. I would expect that necessary steps to assist and to provide the opportunities to sustain a quality of life for those of us living in a hazardous aircraft environmental air noise pollution and environmental pollution zones would be foremost.	The 65 DNL is the threshold of what the Federal government considers a significant noise impact to residential and other noise-sensitive land uses. Local jurisdictions with planning and zoning authority are free to adopt the 65 DNL (or a lower standard) for the purposes of regulating new development within their jurisdictions. Currently, the City of Columbus restricts residential development from within the 70 DNL noise contour (Columbus City Codes, Title 33, Chapter 3384: *Airport Environs Overlay*). Measure LU-3 recommends that the City of Columbus revise their zoning code to expand the Airport Environs Overlay zone to the 65 DNL noise contour.	Madelaine C. Gentry
3.4	Nothing of note indicated in any of the drafts indicating destruction of property, homes, imminent domain and business(es) located within the proposed changes for PCIA (CMH).	The Part 150 Noise Compatibility Study does not recommend any acquisition of residential property. However the ongoing Environmental Impact Statement (EIS) to assess the impacts of the Sponsor's Proposed Project to relocate Runway 10R/28L includes alternatives that would require the acquisition of homes. Information on the impacts of these alternatives is included in the (EIS) documentation but is beyond the scope of this Part 150 Noise Compatibility Study.	Madelaine C. Gentry
3.5	Why is Port Columbus International Airport not making use of all that land that sits north and northeast of the main airport and terminal since it appears that Port Columbus International Airport is so intent on a continuous noise cavern, moving aircraft environmental noise levels, aircraft pollution and congestion to the east, south and southeast of Fifth Avenue? Yet no buffer zones, berm walls, and home insulation to areas, just as affected, as those purported within the 65 dB noise contours.	Any decisions regarding the future development of airport-owned property to the north and northeast of CMH are beyond the scope of this Part 150 Noise Compatibility Study. However, this Part 150 Study has taken into account any future airport development that could affect noise levels. The CRAA has implemented a policy of offering sound insulation of homes within the 65 DNL noise contour in order to create an area of compatible land uses within the areas significantly impacted by noise. In addition, recommended Measure NA-9 recommends a noise wall/berm be constructed to reduce noise impacts to adjacent homes.	Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
3.6	By being the representative of the complete neighborhood that they have separated and divided the communities in a way that I don't have time to understand because when the airport comes over, they can't hear their TVs phones and et cetera. And then the neighborhood next - the neighbor next door got soundproofing and they can't, it's really a concern to me.	See response to comment 3.1	Alfonso Hooper
3.7	My home is on the border of the trapezoid (the runway protection zone of the proposed relocated runway 10R/28L). I have been told that approximately 35 homes will be eliminated. My family and I have resided at that address over 40 years.	This comment is regarding the ongoing Environmental Impact Statement (EIS) to assess the impacts of the Sponsor's Proposed Project to relocate Runway 10R/28L and is beyond the scope of this Part 150 Noise Compatibility Study. This comment will be addressed through the EIS process.	Patronia Thompson
4.0	SAFETY		
4.1	Aircraft fly very low.	Flight corridors are planned to ensure the safest route to and from the runway while incorporating noise abatement procedures whenever possible. Generally, aircraft on arrival are at lower altitudes as they approach the runway than departing aircraft.	Elinora M. Upshaw, James Davis
5.0	ENVIRONMENTAL CONCERNS		
5.1	Aircraft noise decreases my quality of life.	A disadvantage of residing near an airport is that aircraft are likely to fly over the area and result in noise. Your comment has been noted and made part of the official record.	Madelaine C. Gentry
5.2	As much aircraft pollution and aggressive invasiveness that already emulates from 10R/28L the best of the no alternatives is to reconstruct in current locations since moving these especially some 702 feet will be more eminent and invasive and louder and louder aircraft noise pollution and environmental noise from landings, take-offs, from commercial, private and pleasure aircraft all invasive of my home and quality of life.	The proposed project to relocate Runway 10R/28L is being assessed in the ongoing Environmental Impact Statement (EIS). This Part 150 Noise Compatibility Study assessed the noise impacts of relocating Runway 10R/28L 702 feet farther south (the Sponsor's Proposed Project). Therefore the concern of the commenter is being taken into consideration in this Part 150 Noise Compatibility Study.	Madelaine C. Gentry
5.3	Relocating Runway 10R/28L further south will increase noise impacts to communities to the south of the airport.	This Part 150 Noise Compatibility Study assessed the noise impacts of relocating Runway 10R/28L 702 feet farther south. Therefore the concern of the commenter is being taken into consideration in this Part 150 Noise Compatibility Study.	William A. Banks, Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
5.4	No relocation of Runway 10L or 28R...Any movement closer to Fifth Avenue will create an even more intrusive, invasive, intense and more maximized of dBs, DNL and SELs levels disrupting sleep depravation and environmental unfriendly noise impact to me and my home environment.	There is no proposed alternative that would relocate Runway 10L/28R. Also see response to comment 5.2	Madelaine C. Gentry
5.5	Resounding no new terminal. This is a bandaid approach and will not remedy the situation. What will the need be 20-30 years from now? Where will the expansion come from in 20-30 years since the airport is landlocked?	This comment is regarding the ongoing Environmental Impact Statement (EIS) to assess the impacts of the Sponsor's Proposed Project to relocate Runway 10R/28L and expand the existing terminal and is beyond the scope of this Part 150 Noise Compatibility Study. This concern will be addressed through the EIS process.	Madelaine C. Gentry
5.6	I object to the lack of consideration to the human side on aircraft environmental noise pollution being permitted at all times of the night, the middle of the night, mid early morning, mid early mornings etc. hours between 10:00 p.m. and 7:00 a.m.	The CRAA has no control over the times of day that commercial airlines schedule their flights. The DNL metric is designed to take higher sensitivity to nighttime noise into account by applying a 10 dB penalty to flights that occur between 10:00 p.m. and 6:59 a.m. Therefore, the concern that the commenter is expressing is being taken into consideration in the study.	Madelaine C. Gentry
5.7	They don't need another (runway), utilize what you have.	The proposed project to relocate Runway 10R/28L including the purpose and need for the project, is being assessed in the ongoing Environmental Impact Statement (EIS). The Sponsor's Proposed Project is to construct a replacement runway 702 feet south of the existing Runway 10R/28L. If approved, this runway would be a replacement for the existing Runway 10R/28L which is in need of repair.	Frances E. Bond

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
	PART 150 PROCESS RECOMMENDATIONS		
6.1	Local, state and national governments need to implement newer guidelines for the regulation of the environmental aircraft noise events from all aircraft - aircraft has changed but the times have not changed with the aircraft pollution and environmental effect that aircraft have on humans and the DNL 65 dB needs to be lowered in accordance to the increased amount of air traffic and it affects on the human ear and body...having to contend with being awaken from sleep and can't get to sleep because of the continuous fly overs, take-offs, aircraft motor revving, landing all through the "normal" hours of sleep and the sounds of a continuous barrage of aircraft and noise pollution with the effects of a war zone...this is what comes (PCIA) from aircraft flying in my home area...an area according to the FAA environmental impact statement and the (PCIA) maps as not being in the noise contour...if, this is the case, and my home and neighborhood are not designated as being in the (PCIA) noise contour, then why do aircraft and the noise stemming from times of day and night (at times flying over Harley field then making wide sweeping turn and go northwest) fly in close proximity to my home and fly in my neighborhood? Remaining disqualified from having home insulated or buffer zones.	The 65 DNL is the threshold of what the Federal government considers a significant noise impact to residential and other noise-sensitive land uses. This standard has been adopted by the United States Congress and changing this standard is beyond the authority of the CRAA.	Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
6.2	Many people could not attend the Public Workshop because the time is not convenient and they have other commitments.	The Part 150 Study included four Public Information Workshops, the fourth workshop also included a Public Hearing. Each of the four Public Information Workshops were held on two consecutive days, in two different locations, for three hours each, in an attempt to afford everyone the opportunity to attend. Each Public Information Workshop was advertised in local newspapers, on the Airport's website, and invitations were mailed to persons who have requested to receive meeting notices. The dates and times of the Public Information Workshops are listed below. More information about the Public Information Workshops is included in Appendix G of this document. Public Information Workshop #1 July 11th and 12th, 2006; 5:00 p.m. to 8:00 p.m. Public Information Workshop #2 December 5th and 6th, 2006; 5:00 p.m. to 8:00 p.m. Public Information Workshop #3 April 24th & 25th, 2007; 5:00 p.m. to 8:00 p.m. Public Information Workshop #4 August 14th and 15th, 2007; 5:00 p.m. to 8:00 p.m.	Shirley Buttrum
6.3	I do not want a sound wall or any type of barrier near my home. A barrier would cause my property value to depreciate. It would make it more difficult to find a buyer if I decide to sell my home.	There is no available information indicating that a noise berm / wall would decrease housing values. If a noise berm / wall were constructed, it would be done in a way so that it would be effective in reducing aircraft noise, as well as being as aesthetically pleasing as possible.	Patronia Thompson
6.4	Implementation (of recommended measure NA-6) will create an even more intrusive, invasive, intense and even more maximized of db's, DNL and SEL levels disrupting sleep deprivation and environmental unfriendly noise pollution to me and my home environment implement only for emergency landing - why is it that planes cannot land on the runways north of the tower.	Measure NA-6: *Implement a 15 degree divergent turn off of Runway 28R, after crossing the runway end to a 295 degree heading, only during peak operating periods when traffic warrants,* reduces the total number of homes within the 65 DNL noise contour. The alternative has no effect on arriving aircraft or emergency landings. Aircraft currently operate on both runways (10L/28R and 10R/28L) and will continue to do so.	Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
6.5	Implementation (of recommended measure NA-7) will create an even more intrusive, invasive, intense and even more maximized of db's, DNL and SEL levels disrupting sleep deprivation and environmental unfriendly noise pollution to me and my home environment implement only for emergency landing - why is it that planes cannot land on the runways north of the tower.	This measure is no longer being recommended for inclusion in the Noise Compatibility Plan. After its initial recommendation, several airline officials expressed concern over the ability to implement the procedure, therefore it was withdrawn from consideration.	Madelaine C. Gentry
6.6	Construction of a noise berm wall (recommended in Measure NA-9) needs to take place along the whole corridor of Fifth Avenue from the old airport terminal on Fifth Avenue to Nelson Road and Fifth Avenue and up along the CSX railroad from overpass at Stelzer Road.	The location of the recommended noise berm was determined based upon the area in which it would have the greatest affect in reducing aircraft noise. Noise berms / walls are most effective when they are closest to the source (the aircraft) or the receiver (homes) and they are not effective in reducing noise from aircraft in flight. Fifth Avenue and Nelson Road are farther away from the airport than the proposed location of the noise berm. At the suggested location a noise berm would not be effective in reducing aircraft noise.	Madelaine C. Gentry
6.7	My response is as follows to LU-3 - As long as the amendments are not a sell out of my environmental rights and quality of life. As long as the amendments do not continue to erode and infringe upon my environmental right to peace and quiet. I would expect that any amendments that affect my quality of life would provide some means of protection and concern for me as a citizen and measures implemented that would lessen the environmental impact of the already invasive noise pollution levels stemming from aircraft of all nature flying at all times of the night and day at the Port Columbus International Airport.	Measure LU-3: *Seek cooperation from the City of Columbus and Franklin County to amend their land use compatibility standards to achieve the level of compatibility identified in the recommended land use compatibility guidelines*, would prevent new, incompatible development from occurring around the airport and is not expected to have any adverse effects on individuals' quality of life.	Madelaine C. Gentry

RESPONSE TO COMMENTS, (Continued)

	Comment	Response	Commenter
6.8	Although I have not had sufficient time to examine, research or fully investigate implications of LU-4 through LU-12, I would hope that careful analysis and full attention also be given to my neighborhood for prospective inclusion in the home insulation program provided to those current homes and future homes that are consider within the 65 dB, since it has been proven that when factored in variable of 10 dB according to government variables, the variable of 10 dB DNL, brings recorded dB's of 60 dB to a variable of significant to 70 dB. Thereby, placing the actual aircraft noise event at a max 10% or possibly greater.	The affects of each alternative have been analyzed and those alternatives that show a benefit to noise and land use compatibility have been recommended for inclusion in the final Noise Compatibility Plan. The calculation of DNL includes a penalty of 10 dB for every nighttime (10:00 p.m. to 6:59 a.m.) operation. The penalty is already applied to the 65 DNL noise contour shown in the Noise Exposure Maps.	Madelaine C. Gentry
6.9	I do not believe that the FAR Part 150 Noise Compatibility Study Port Columbus International Airport addresses or produces findings that equate to those neighborhoods outside the 65 dB that are impacted by aircraft environmental noise pollution. I believe additional research and in depth analysis is necessary to identify the commercial, private and pleasure aircraft environmental impacts upon those homes adjacent to PCIA and in the noise corridor window of the 65 dB. Obviously, variable, factors and aerodynamics are in effect for the mechanics of aircraft flying dimensions as to when and how they fly. On the same hand, variables inclusive of health and well being are in effect for those such as myself who live in these aircraft environmental noise pollution zones.	The Noise Model has been developed through extensive research into the physics of aircraft noise including factors such as aerodynamics and dimensions of flight. The noise contours modeled for this Part 150 Noise Compatibility Study included information on how, when, and where all aircraft fly to and from CMH. While the FAA determines a significant noise impact of 65 DNL or greater, this Part 150 Noise Compatibility Study included, where appropriate, an assessment of noise levels of 60 DNL when making decisions regarding recommended noise abatement procedures.	Madelaine C. Gentry
6.10	I think this work study, financially, should not be. You can't ever satisfy people. If you do it for this batch of people, fifteen, twenty years down the line, they don't like this, that and the other.	Your comment has been noted and made part of the official record.	Frances E. Bond

RESPONSE TO COMMENTS, (Continued)

Comment		Response	Commenter
7.0	**GENERAL COMMENTS**		
7.1	People keep complaining about this - this Port Authority out here, the next thing you know you might be finding yourself going to another city to get on a airplane...It's better to keep what's here and be glad you have a Port Authority and don't have to go far to go because it's just five to ten minutes, ain't no more than ten minutes from my house to the Port.	Your comment has been noted and made part of the official record.	Frances E. Bond
7.2	A helpful and friendly crew of people.	Your comment has been noted and made part of the official record.	No name given
7.3	If the realtor had told me about the planes, I wouldn't have moved there.	Through Measure LU-9, the CRAA has previously and continues to encourage a voluntary fair disclosure program through the Board of Realtors and the Homebuilders Association. Any such program would be voluntary and the CRAA cannot force individual realtors to disclose the location of a home in relation to the airport or to the published noise contours. The CRAA does publish notice of the Noise Exposure Maps to provide information on noise levels to the public.	Jane Hudgins

Focus Group Meetings

Land Use Coordination
Noise Abatement

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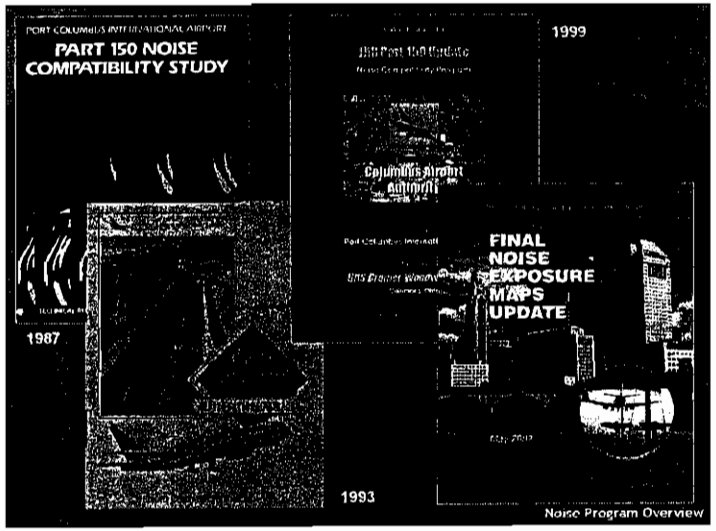
Airport Environs Overlay Discussion
May 3, 2007
Agenda

1. Review of AEO
    a. Process – Mark Kelby
    b. Problems
2. Discussion of Proposed Update – Chris Gawronski
    a. Brief summary of update
    b. Problems with previous efforts
3. Part 150 Airport Land Use Management District – Rob Adams, L&B
    a. Rickenbacker
    b. Port Columbus
4. Strategy for implementation
    a. Responsible City Division(s)
    b. MORPC's role
    c. Port Columbus Area Development Partnership
    d. Gahanna adoption
    e. Southeast Area Plan

Airport Environs Overlay Zoning

Columbus Regional Airport Authority

May 3, 2007



History

- 1991
  Model Airport Noise Regulations prepared by the Mid Ohio Regional Planning Commission (MORPC)
- 1994
  Airport Environs Noise Overlay (AEO) Zoning adopted by the Columbus City Council
- 1996
  Franklin County Zoning Resolution adopted by the Franklin County Commissioners creating an Airport Environs Overlay District
- 2002
  Update of Model Airport Noise Regulations completed by MORPC

Development Reviews are Varied

- 270 reviews, resulting in 98 avigation easements
- Communications towers
- Banks, automobile fueling stations, warehouses and other commercial development
- Office buildings, hotels, churches
- Residential development
- Building additions and renovations
- Zoning variances

Development Review Content

- Acknowledge & understand proposal
- Note property owner and the tax parcel number
- Locate AEO sub-district
- Determine AEO land use compatibility standards
- Note nearest runway, include overflight data
- Document request
  - Avigation easement or subdivision plat notice
  - Compliance with building codes - sound insulation of residential living spaces and public areas of buildings
  - Ohio Airport Protection Act and FAA Form 7460-1 requirement

Airport Overlay Zoning

Issues

- Residential uses in the 65 DNL
- AEO boundary changes due to NEM updates
- Airport development is not exempt
- Political pressure can negatively influence the airport's response to development
- Process
  - Applicants contact airport staff directly rather than working through the City process
  - City staff sometimes forgets to send review package to airport
  - Follow up with airport requests for avigation easements

Airport Overlay Zoning

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

LAND USE COORDINATION MEETING

AGENDA

JUNE 15, 2007

11:00 AM
EMERGENCY OPERATIONS CENTER

I. Update on Part 150 Study Progress

II. Overview of Current Land Use Measures

III. Proposed Update to the Sound Insulation Program Boundaries

IV. Discussion of an Airport Land Use Management District (ALUMD)

- Background (Airport Environs Overlay)
- What is an ALUMD?
- Use of sub-districts to control land use
  - Noise compatibility
  - Part 77 Height Restrictions
  - Wildlife Management

V. Next Steps

Port Columbus International Airport

Part 150 Noise Compatibility Study

Public Use Information Meeting

[illegible] 2007

1

Today's Agenda

- Update on the Part 150 Study
- Overview of Current Land Use Measures
- Proposed Update to the Sound Insulation Program (SIP) Boundaries
- Discussion of an Airport Land Use Management District (ALUMD)
- Next Steps

Update on Part 150

- Study began in 2006
- Currently preparing the Draft Part 150 Submittal Document and Recommendations
- PAC Meeting on June 27 – Public review of recommendations
- Public Hearing will be held in late Summer 2007
- Final Part 150 Study submitted to FAA in Fall 2007
- FAA issues Record of Approval in Summer 2008
- FAA approves ELS in April 2009

Current Land Use Measures

- **LU-1:** Offer a program of [illegible] structures for non-compatible [illegible] dB contour of the [illegible] Exposure Map [illegible] an avigation easement.
  - **Status:** On-going [illegible] NEM/Update.
  - **Recommendation:** [illegible] of program. Additional [illegible] Insulation [illegible] $8,645,000 [illegible]
- **LU-2:** Offer [illegible] program [illegible] compatible structures [illegible] 65+ dB contour of the [illegible] Exposure Map with [illegible] an avigation easement.
  - **Status:** Implemented. [illegible] structures located within the Future (2012) NCP.
  - **Recommendation:** Continue measure.

Current Land Use Measures

- LU-1: Seek cooperation from City of Columbus and Franklin County to [illegible] and Use Compatibility Standards to [illegible] compatibility identified in the recommended [illegible] patibility Guidelines.
  - **Status:** [illegible]
  - **Recommendation:** [illegible] measure.
- LU-2: [illegible] City of Columbus and [illegible] boundaries of the Airport [illegible] to correspond to the DNL 65
  - **Status:** [illegible] both Columbus and Franklin County [illegible] at the 65 DNL contour.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD).

Current Land Use Measures

- LU-5: Seek cooperation from [illegible] Franklin County [illegible] Avigation Easement [illegible] change of use [illegible] easement to [illegible]
  - **Status:** [illegible] conveyance [illegible] conditions [illegible]
  - **Recommendation:** [illegible] to include [illegible]
- LU-6: Seek cooperation from [illegible] City of Gahanna adopt the Airport Environs Overlay (AEO) District as part of their [illegible]
  - **Status:** Not implemented.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD).

Current Land Use Measures

- LU-7: Seek cooperation from Franklin County, Jefferson Township, Minerva Park, and the City of Gahanna to adopt subdivision [illegible] to the Airport Environs Overlay [illegible]
  - **Status:** [illegible]
  - **Recommendation:** [illegible] measure with modification to include proposed Airport Land Use Management District (ALUMD) [illegible] boundary.
- LU-8: [illegible] Franklin County, Jefferson Township, Minerva Park, and the City of Gahanna to adopt [illegible] Environs Overlay (AEO) District.
  - **Status:** Not implemented.
  - **Recommendation:** Continue measure with modification to include proposed Airport Land Use Management District (ALUMD) as measure boundary.

Current Land Use Measures

- LU-9: Seek cooperation [illegible] participate in [illegible] located within the AEO [illegible]
  - **Status:** [illegible]
  - **Recommendation:** [illegible] to include [illegible] District [illegible]
- LU-10: [illegible] sections of local [illegible] the AEO District.
  - **Status:** Not implemented.
  - **Recommendation:** Continue measure to advertise Airport Land Use Management District (ALUMD) boundaries through [illegible] website), not specifically real estate solicitation newspapers.

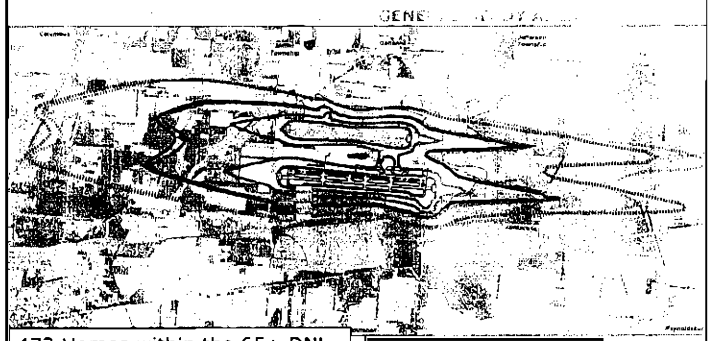
Current Land Use Measures

- **LU-11:** Purchase the Brooks property to prevent imminent noncompatible development from occurring
  - **Status:** Not implemented
  - **Recommendation:** Withdraw measure

Recommended Updates to SIP Boundaries

- **FAA eligibility requirements prevent homes built within a published noise contour**
- **Approximately 247 homes to be eligible for the Sound Insulation Program**
  - Homes not previously in program
  - Homes outside of 65 DNL, but included to maintain neighborhood continuity
  - Homes previously offered SIP, but did not participate
- **All homes are located on the west side of the airport**
- **Cost to include the additional homes in the program: ~$8.7 million ($35,000 per home)**

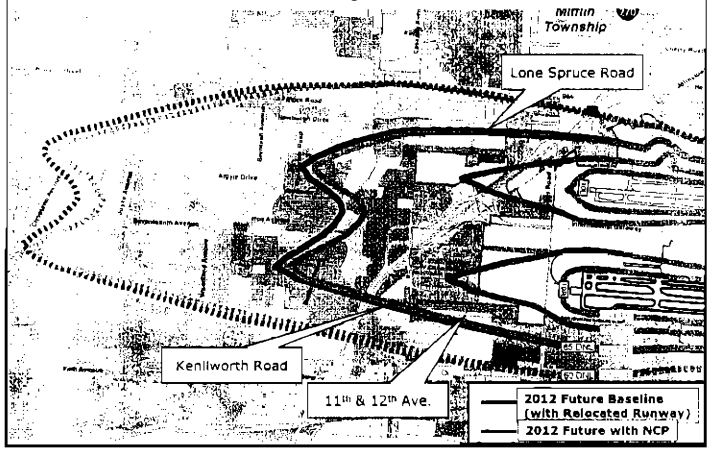
Future (2012) with Noise Compatibility Program



472 Homes within the 65+ DNL
Increase of 0 homes within 65+
Decrease of 228 homes within 65+

2012 Future Baseline (with Relocated Runway)
2012 Future with NCP

Future (2012) with Noise Compatibility Program

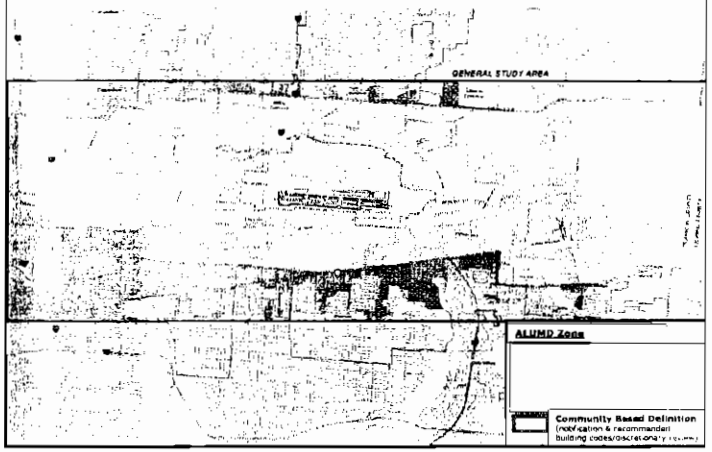


Recommended Measures

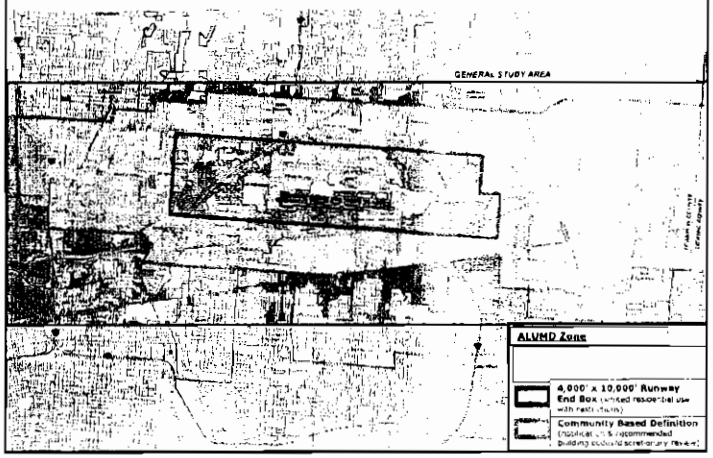
New Alternative Recommended

- **LU-B:** Develop [illegible] Use Management District (ALUMD) based [illegible] Noise Exposure Map/Noise Compatibility [illegible] noise contour, natural geographical [illegible] political boundaries
  - Land use control issues
    - Noise compatibility
    - Part 77 height restriction
    - Wildlife management

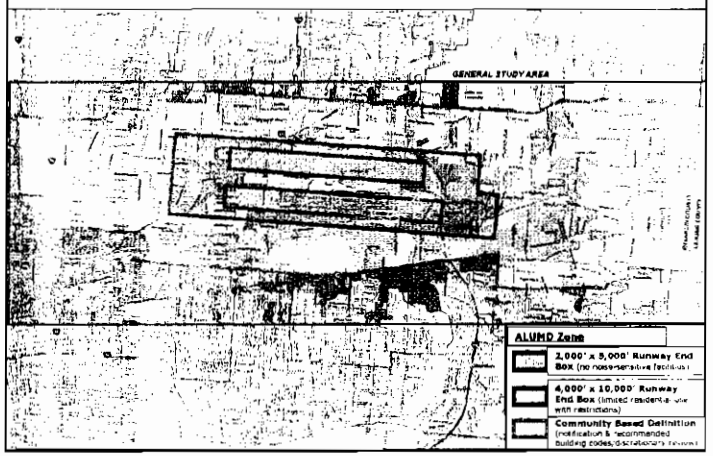
Proposed Airport Land Use Management District Boundary



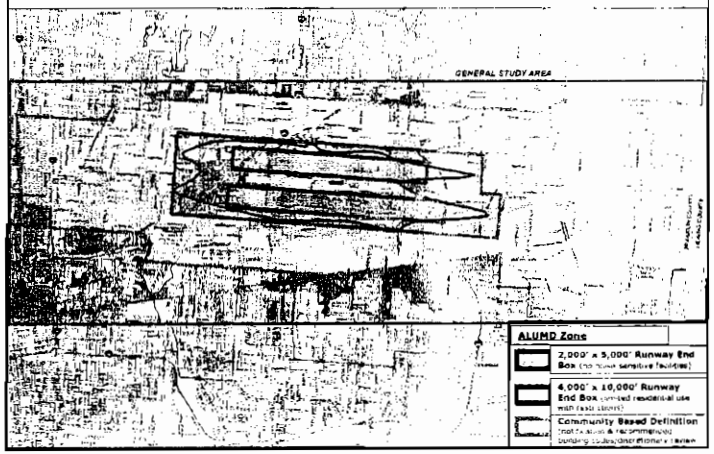
Proposed Airport Land Use Management District Boundary



Proposed Airport Land Use Management District Boundary



Proposed Airport Land Use Management District Boundary

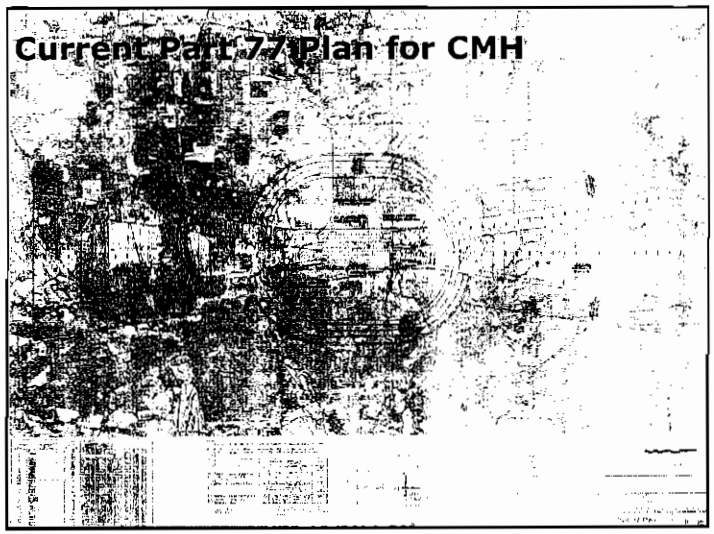


Recommended Measures

New Alternative Recommended

- **Part 77 Height Restrictions**
  - Controls height of development
  - Ohio Airport Protection Act
  - Incorporating Part 77 review in the development process

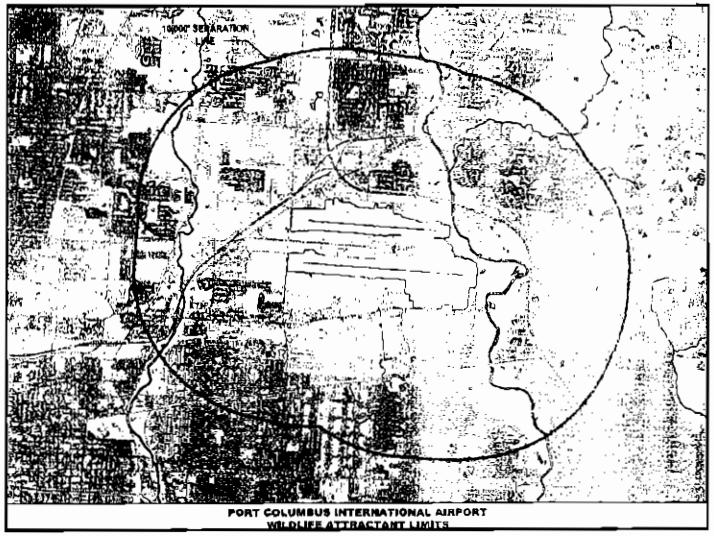
Current Part 77 Plan for CMH



Recommended Measures

New Alternative Recommended

- **Wildlife Management**
  - Restricts [illegible] airports
  - Limits creation of wetlands [illegible] landfills, etc.
  - FAA has developed [illegible] area for CMH



Next Steps

June 27, 2007

- Final PAC Meeting

August 14-15, 2007

- Public Hearing and Workshop

Fall 2007

- Prepare Responses to Comments
- FINAL Part 150 Study Document Submittal
- Submit FINAL Part 150 Study to FAA

Summer 2008

- Anticipate FAA issuance of the Record of Approval

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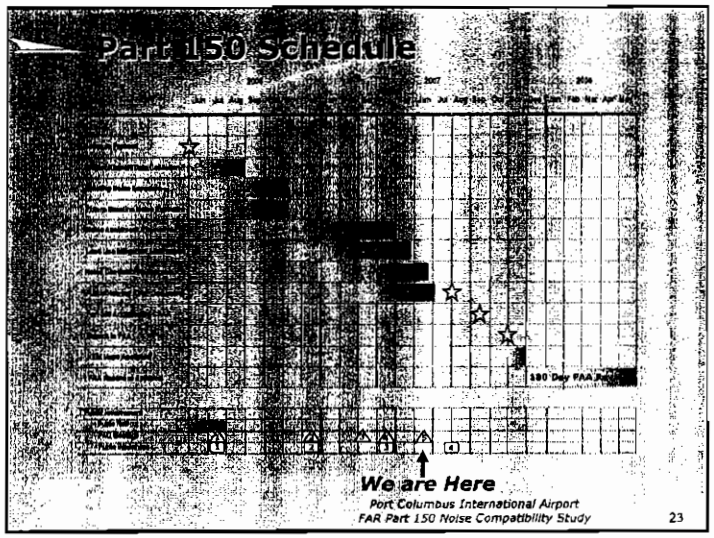
Part 150 Schedule



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Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

LAND USE COORDINATION MEETING

MEETING SUMMARY

JUNE 15, 2007

11:00 AM
EMERGENCY OPERATIONS CENTER

I. Update on Part 150 Study Progress

- Rob Adams opened the meeting.
  - He discussed that most of the alternatives have been focused on noise.
  - This meeting will be to discuss land use alternatives.
  - The Draft 150 is currently being prepared for public release in the next month or two.

II. Overview of Current Land Use Measures

- Rob briefly reviewed the current land use measures.
  - There are two corrective measures and the rest are preventive measures

III. Proposed Update to the Sound Insulation Program Boundaries

- There is FAA policy from 1999 on building a new home in an existing contour. An owner is not eligible to receive mitigation if there was knowledge of the noise levels being greater than 65 DNL.
- Question: What about the development on the north side of the contour?
  Answer: There isn't new development that we know of on the west side of the airport but there is the new Taylor Station sub division being built on the east side.
- Comment: There are hotels located on the east side of the airport that are experiencing complaints from the noise.
  Answer: Under FAA guidelines, hotels are considered commercial property and are not considered to be significantly impacted by 65+ DNL noise levels.

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

LAND USE COORDINATION MEETING

MEETING SUMMARY

JUNE 15, 2007

11:00 AM
EMERGENCY OPERATIONS CENTER

IV. Discussion of an Airport Land Use Management District (ALUMD)

- Background (Airport Environs Overlay)
  - Mark Kelby gave a presentation on the history and some of the issues with the AEO
  - Billboards require FAA approval
- What is an ALUMD?
  - There are three sub districts to the ALUMD
  - The outer boundary would encourage the CRAA discretionary review and recommends realtors to fill out a disclosure form
  - **Question:** At what point would the home buyer get notification of the noise?
    Answer: There would be a discloser form when selling a home. There is no way to currently inform home buyers of the noise levels in the selling process. The airport can offer an easement or plat for new homes.
  - **Question:** What is done for homes in the 60 DNL noise levels?
    Answer: There are windows and doors with a high noise rating. There are also recommended indoor noise levels
  - **Question:** What are the costs for reducing the noise?
    Answer: The cost increases are for the higher rated windows and doors.
  - The middle boundary is where people living in this area should know that an airport is near. There is limited new residential development occurring on the east side but new development on the west. The ALUMD would recommend that any new homes would have notification and an easement.
  - **Question:** Does this boundary take into account the relocated runway?
    Answer: Yes this is with the relocated runway.

- The innermost boundary on the east is mostly industrial land uses. The west has a small amount of residential land uses. This area would have the most restrictive use with no residential development.
- **Question:** Have other airports used this type of boundary?
  Answer: Yes, Las Vegas, Baltimore, and Wright Patterson Air Force Base.
- **Question:** What factors would impact the contour from growing the most?
  Answer: The factors include: type of aircraft, number of operations, and the biggest factor would be the time of day.
- The CRAA would like to look at the 20 year contour to see where the contour would fall within the boundary.

- Use of sub-districts to control land use
  - Noise compatibility
  - Part 77 Height Restrictions
  - Wildlife Management

- **Comment:** It would be helpful if there was one boundary instead of three boundaries to follow.

V. Next Steps

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

AIR TRAFFIC CONTROL TOWER COORDINATION

MEETING SUMMARY

FEBRUARY 26, 2007

I. Overview of Preliminary Noise Abatement Alternatives

- **Current noise abatement procedures**
  - ATCT will continue to ask for an extension on allowing arrivals to land on Runway 28R during the nighttime hours (10:00 p.m. to 7:00 a.m.)
  - The current prop procedure was intended for AirNet operations. Since AirNet has relocated to LCK the procedure is not needed. No problem is seen with removing the procedure from the Tower Order.
- **Noise abatement alternatives being considered**
  - ATCT personnel were given sketches of the various alternatives being considered. They will review and provide comments/suggestions.

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

AIR TRAFFIC CONTROL TOWER COORDINATION

MEETING SUMMARY

FEBRUARY 26, 2007

II. Specific Issues with Alternatives

- **Coordination with OSU airport**
  - Coordination is necessary when OSU arrival traffic is landing on Runway 27L
  - 500 ft. of vertical separation is necessary between the departures from CMH and the arrivals at OSU
- **Final approach procedures**
  - Original intent of visual procedures was for aircraft to be on final before reaching the outer fixes
  - ATCT will work internally to implement the procedure with the original intent being met.
- **Divergent Turns**
  - Additional headings are not to operate simultaneous departures but to add additional headings off of the runways to allow departures to be released earlier than current procedures. This will help decrease delays for aircraft assigned arrival times at flow control airports.
  - **How often would a turn be needed?**
    - ATCT will discuss internally to decide how often these turns would be needed.
    - If implemented, restricting the use of the turn would need to be defined.
    - L&B will look at additional turns (inboard) to determine which turns have the lowest number of impacts.
    - The turns will be needed more as traffic increases at the airport, especially when SkyBus begins operation.
  - **Potential turn locations**
    - L&B will look at additional turns (inboard) to determine which turns have the lowest number of impacts.
    - The proposed 40 degree turn will not work due to impacts with LCK
    - L&B will look into obtaining a waiver to flying straight out before beginning the 15+ heading.

- **Runway use preferences**
  - ATCT uses west flow more often than east flow due to a number of reasons.
    1) Winds a loft are different than the winds at the surface, causing pilots to request Runways 28L/R
    2) 60-70% of carriers are departing to airports with flow control. Since the terminal is closer to the east end of the runways, there is less taxi time/distance to depart on Runways 28L/R.
    3) Currently, there is not a hold apron on Runway 10L/R to place aircraft that are being delayed. If departing on Runways 28L/R aircraft can be held at the gate. A hold apron is under construction and when operational will help this issue.
    4) Visibility from the tower is better to Runways 28L/R than to Runways 10L/R. The tower floor is in the process of being raised to help the visibility problem. This should be completed in 4-6 months.

III. Future Airfield/Terminal Improvements

- To discuss at a later date/time

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

AIR TRAFFIC CONTROL TOWER COORDINATION

MEETING SUMMARY

FEBRUARY 26, 2007

ATCT Action Items

1. **Divergent turns**
   - Where would be the best locations for the turns to assist with delay/capacity issues?
   - How often would the turns be needed?
   - How would the turns be limited to be used only when needed?
2. **Additional alternatives being considered.**
   - Look at the sketches and provide comments
3. **East flow preference**
   - Any additional materials/procedures that would assist with operating in east flow more often?
4. **Internally educate the original intent of the final visual approach procedure.**

L&B/CRAA Action Items

1. **Organize a meeting with the airlines, CRAA, and ATCT to discuss the east vs. west flow preference.**
   - The meeting(s) will include the chief pilot and the station managers.
2. **Determine what projects/actions are AIP funds allowed to be used.**
3. **Look for additional equipment to assist with predicting the winds.**

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

AIR TRAFFIC CONTROL TOWER COORDINATION

MEETING SUMMARY

JUNE 15, 2007

I. Review of Land Use Meeting

II. Overview of the use of the north runway during the nighttime

- Part 150 study is reviewing the need
- In 2004 (pretest) there were 374 operations during the nighttime during a five day period. Of the 374 operations there were 203 arrivals
- In 2007 (during test) there were 159 operations during the nighttime during a five day period. Of the 159 operations there were 94 arrivals
- Airlines on the north side of the terminal request the north runway.
- Extra communication between the Tower and the pilots is a safety concern.
  - If the visual approach (side-step) procedure is recommended, then it must be published.
  - If the test is removed then it needs to be official and communicated to the airlines
  - In order to use only the south runway RON parking would be need by the Tower to stage aircraft in flow control.
- CRAA will discuss internally to decide their final decision and communicate the decision to the Tower.

Port Columbus International Airport

PART 150 NOISE COMPATIBILITY STUDY UPDATE

AIR TRAFFIC CONTROL TOWER COORDINATION

MEETING SUMMARY

MARCH 15, 2007

I. Alternative Comments

- **NA-B**
  - ATCT believes this alternative is beneficial and is safe
  - ATCT does not see a need for divergent turns with the current level of operations but does see a need in the future.
  - When procedures are implemented ATCT does believe the turn can be limited to a need only basis and can control the use accordingly
- **NA-E and NA-G**
  - In addition to the 20 degree turn off of Runway 28L these additional alternatives would be sufficient. The ATCT does not see a need for the divergent turn off of Runway 10L (NA-K).
  - NA-E does not cause any conflicts with OSU. Props currently use this procedure. All CMH traffic would out climb the traffic from OSU.
- **NA-R**
  - Winds dictate the use of the runways.
  - ATCT can commit to moving more east flow. A 70% east and 30% west split will be easy to get to, a 65% east and 35% west is more difficult due to winds aloft and increased taxitimes
  - An increase in taxitime leads to more fuel consumption for the airlines.
- **NA-U**
  - ATCT would prefer not to assign a preferred runway. This would limit the flexibility and the ability to assign flights to the runway closest to their gates.
- **NA-C**
  - ATCT does not see this as an operational/delay reduction benefit
  - A SID would be needed to make this alternative work
- **NA-D**
  - ATCT is not completely comfortable with this alternative

  - The location of the turn would be difficult to keep consistent
  - A published approach would be necessary to implement procedure
  - Need to discuss with the airlines to determine if they would agree to fly the procedure
- **NA-I**
  - ATCT does not see this as an operational/delay reduction benefit but it is also not seen as a negative impact
  - This turn would rarely be needed due to the small number of nighttime operations
- **NA-V**
  - ATCT would not like to have the opposite as an option rather than mandatory.

APPENDIX H
2023 NOISE EXPOSURE (NEM) / NOISE COMPATIBILITY PROGRAM (NCP)

This appendix sets forth the detailed input data that was used to prepare noise exposure contours for 2023 Baseline conditions.

H.1 DATA SOURCES AND ASSUMPTIONS

Several types of operational information are required to produce baseline noise exposure contours for the airport. These include estimates of the numbers of actual operations by specific aircraft types at different periods of the day, flight path locations, runway and flight path utilization, and aircraft operating characteristics.

H.1.1 RUNWAY DEFINITION

There are two east/west parallel runways (10L/28R and 10R/28L) spaced approximately 2,800 feet apart. Runway 10R/28L is the longest runway on the airfield at 10,125 feet. The Federal Aviation Administration (FAA) is currently conducting an Environmental Impact Statement (EIS) to assess the impacts of relocating the south runway (Runway 10R/20L) 702 feet farther south. If approved, construction would likely be completed by 2012 therefore the Future (2023) Baseline includes this 702 foot relocated runway to the south of the existing Runway 10R/28L. For discussion purposes in this document the proposed relocated runway will be referred to as Runway 10X/28X. The runway layout that was modeled for the Future (2023) Baseline is shown below:

Runway	Length (feet)
10L/28R	8,000
10X/28X	10,113

H.1.2 NUMBER OF OPERATIONS

The 2023 operations are based on a forecast prepared for the Part 150 Study and the ongoing EIS being conducted by the FAA. The forecast was approved on January 9, 2007 and is included in Appendix J. The forecast is based upon aviation industry trends and specific airline activity at CMH. The Future (2023) Baseline includes 291,580 annual operations or 800 daily operations, an increase of 21.9 percent from the forecasted operations for the Future (2012) Baseline. The forecast shows a projected increase in the percentage of commuter jet aircraft as airlines are expected to continue the trend of replacing large jets with commuter jets. Also very few commuter props are expected to be in operation by 2023. A summary of the average annual day operations by aircraft category and time of day is presented in **Table H-1**.

Table H-2 shows the average daily number of arrivals and departures by the individual aircraft types. Embraer 145s, Embraer 170s and Canadair Regional Jets are expected to continue to be the most common aircraft at Port Columbus International Airport (CMH).

Table H-1
AVERAGE DAY OPERATIONS
FUTURE (2023) BASELINE CONDITIONS
Port Columbus International Airport

Aircraft Category	Arrivals		Departures		Total		Total	Percent of Total
	Day	Night	Day	Night	Day	Night		
Large Jet	62	16	64	14	126	30	156	20.1%
Commuter Jet	193	38	192	39	385	77	462	59.4%
Commuter Prop	2	0	2	0	4	0	4	0.5%
General Aviation Jet	35	6	37	4	72	10	82	10.5%
General Aviation Prop	32	5	33	4	65	9	74	9.5%
Total	**324**	**65**	**328**	**61**	**652**	**126**	**778**	**100.0%**

Day: 7:00 a.m. to 9:59 p.m.

Night: 10:00 p.m. to 6:59 a.m.

Source: Landing Fee Reports, ATCT records, Landrum & Brown, 2007.

Table H-2
AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE –
FUTURE (2023) BASELINE
Port Columbus International Airport

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
Large Jet							
Boeing 737-300	737300	19	7	22	4	41	11
Boeing 737-500	737500	2	1	2	1	4	2
Boeing 737-700	737700	26	3	21	8	47	11
Boeing 737-800	737800	7	1	8	0	15	1
Boeing 757-300	757300	1	0	1	0	2	0
Boeing 737-300	7373B2	4	1	5	0	9	1
Boeing 757-300	757PW	2	1	3	0	5	1
Airbus 320	A320	0	1	1	0	1	1
Military Tanker	KC135R	1	0	1	0	2	0
McDonnell-Douglas MD-83	MD83	0	1	0	1	0	2
Subtotal		***62***	***16***	***64***	***14***	***126***	***30***
Commuter Jet							
Business Jet	CIT3	3	1	4	0	7	1
Dessault Falcon 2000	CL600	5	3	5	3	10	6
Dessault Falcon 2000	CL600	4	1	4	1	8	2
Canadair Regional Jet / Embraer ERJ-170 / 190	CL601	81	8	79	10	160	18
Embraer 135 / 145	EMB145	7	2	7	2	14	4
Embraer 145	EMB14L	57	14	55	16	112	30
Commuter Jet	GIV	4	1	2	3	6	4
Commuter Jet	LEAR25	5	2	7	0	12	2
Cessna Citation / BAE125 Hawker	LEAR35	13	1	13	1	26	2
Business Jet	MU3001	14	5	16	3	30	8
Subtotal		***193***	***38***	***192***	***39***	***385***	***77***
Commuter Prop							
Commuter Turbo Prop	HS748A	2	0	2	0	4	0
Subtotal		***2***	***0***	***2***	***0***	***4***	***0***
General Aviation Jet							
Business Jet	CNA500	1	1	2	0	3	1
Business Jet	FAL20	2	0	2	0	4	0
Business Jet	GIIB	2	0	2	0	4	0
Business Jet	GIV	3	1	3	1	6	2
Business Jet	LEAR25	11	0	10	1	21	1
Business Jet	LEAR35	7	4	9	2	16	6
Business Jet	MU3001	9	0	9	0	18	0
Subtotal		***35***	***6***	***37***	***4***	***72***	***10***

Table H-2, *Continued*
AVERAGE DAY OPERATIONS BY AIRCRAFT TYPE –
FUTURE (2023) BASELINE
Port Columbus International Airport

Aircraft Type	INM Code	Arrivals		Departures		Total	
		Day	Night	Day	Night	Day	Night
General Aviation Prop							
Twin-Engine Prop	BEC58P	8	2	8	2	16	4
Twin-Engine Turbo Prop	CNA441	3	0	3	0	6	0
Beech 1900D	DHC6	3	1	3	1	6	2
Single-Engine Prop	GASEPF	10	2	11	1	21	3
Single-Engine Prop	GASEPV	5	0	5	0	10	0
Single-Engine Prop	PA28	2	0	2	0	4	0
Twin-Engine Prop	PA31	1	0	1	0	2	0
Subtotal		***32***	***5***	***33***	***4***	***65***	***9***
Grand Total		**324**	**65**	**328**	**61**	**652**	**126**

Source: FAA Tower Counts, Official Airline Guide (OAG), and Landing Fee Reports, Landrum & Brown, 2007.

H.1.3 RUNWAY UTILIZATION

Average annual runway end utilization was derived from analysis of ANOMS data from 2005 through 2007, with modifications to account for changes due to the implementation of the measures recommended by this NCP and for the anticipated affects of the construction of the proposed runway and terminal addition. Runway use was modified for the Future (2023) Baseline to reflect changes due to the anticipated implementation of Measure NA-R (Renew efforts to maximize east flow during calm winds) as recommended by this NCP. Runway Use was also modified to reflect additional usage of the south Runway since that runway would be more accessible by aircraft operating from the proposed new terminal. **Table H-3** summarizes the percentage of use by each aircraft category on the various runways at CMH during both the daytime (7:00 a.m. – 9:59 p.m.) and nighttime (10:00 p.m. – 6:59 a.m.) that was modeled for the Future (2023) Baseline with the proposed relocated runway.

Table H-3
RUNWAY END UTILIZATION
FUTURE (2023) BASELINE CONDITIONS
Port Columbus International Airport

Daytime Arrivals				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	4.6%	29.6%	54.4%	11.4%
Commuter Jet	14.8%	19.2%	30.1%	35.9%
Commuter Prop	10.6%	23.8%	37.8%	27.8%
General Aviation Jet	6.7%	23.3%	51.3%	18.7%
General Aviation Prop	7.3%	22.7%	49.6%	20.4%
Nighttime Arrivals				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	1.0%	50.0%	48.0%	1.0%
Commuter Jet	18.0%	19.3%	29.9%	32.8%
Commuter Prop	7.3%	37.7%	42.9%	12.1%
General Aviation Jet	6.2%	25.6%	49.2%	19.0%
General Aviation Prop	12.0%	37.1%	31.9%	19.0%
Daytime Departures				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	2.7%	32.1%	57.2%	8.0%
Commuter Jet	12.8%	21.2%	35.3%	30.7%
Commuter Prop	10.0%	24.1%	41.0%	24.9%
General Aviation Jet	6.2%	23.8%	52.5%	17.5%
General Aviation Prop	7.5%	22.5%	49.9%	20.1%
Nighttime Departures				
Aircraft Category	**10L**	**10X**	**28X**	**28R**
Large Jet	2.8%	32.0%	56.8%	8.4%
Commuter Jet	9.5%	26.1%	28.5%	35.9%
Commuter Prop	2.5%	34.2%	50.0%	13.3%
General Aviation Jet	5.4%	24.6%	53.2%	16.8%
General Aviation Prop	4.7%	25.3%	44.5%	25.5%

Daytime: 7:00 a.m. – 9:59 p.m.

Nighttime: 10:00 p.m. – 6:59 a.m.

Note: 10X/28X denotes relocated Runway 10R/28L

Source: 2005, 2006 ANOMS data, Landrum & Brown, 2007.

H.1.4 FLIGHT TRACK LOCATIONS AND USE

A flight track is the path over the ground as aircraft flies to or from the airport. To determine flight track locations, ANOMS radar data was gathered for the period from May 2005 through April 2006 and analyzed to verify the location, density, and width of existing flight corridors. Consolidated flight tracks were developed from this radar data and used in the INM to model the flight corridors present around the airport. Flight tracks were modified for the Future (2023) Baseline Noise Compatibility Program (NCP) to reflect changes due to the anticipated implementation of the following measures recommended by this NCP:

NA-E Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.

Alternative NA-E recommends a 15-degree divergent turn for departures off of Runway 28R. For this procedure, new departure tracks were modeled that followed this course. It was assumed that this procedure would be used by large jets and regional jets during times when peak operational conditions necessitated. Analysis of projected hourly operations indicates that peak operating levels which would require the divergent turn would occur approximately 10 percent of the time.

There are two components to flight tracks used for noise modeling, definition and percentage of use. **Tables H-4** and **H-5** provide the proportion of operations assigned to each of the flight tracks that were modeled for the Future (2023) Baseline.

Table H-4
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2023) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	AJW1	0.8%	0.0%	0.0%	0.0%	0.0%
10L	AJW2	1.7%	0.0%	0.0%	0.0%	0.0%
10L	AJW3	1.4%	0.0%	0.0%	0.0%	0.0%
10L	APW1	0.0%	0.0%	5.3%	0.0%	3.5%
10L	APW2	0.0%	0.0%	5.3%	0.0%	3.5%
10L	APW3	0.0%	0.0%	0.0%	0.0%	0.1%
10L	APW4	0.0%	0.0%	0.0%	0.0%	0.7%
10L	ARW1	0.0%	2.3%	0.0%	0.0%	0.0%
10L	ARW2	0.0%	10.6%	0.0%	6.0%	0.0%
10L	ARW3	0.0%	2.4%	0.0%	0.6%	0.0%
10X	AJS1	6.7%	0.0%	0.0%	0.0%	0.0%
10X	AJS2	16.0%	0.0%	0.0%	0.0%	0.0%
10X	AJS3	3.8%	0.0%	0.0%	0.0%	0.0%
10X	AJS4	7.2%	0.0%	0.0%	0.0%	0.0%
10X	APS1	0.0%	0.0%	11.9%	0.0%	0.0%
10X	APS2	0.0%	0.0%	0.0%	0.0%	16.1%
10X	APS3	0.0%	0.0%	11.9%	0.0%	5.7%
10X	APS4	0.0%	0.0%	0.0%	0.0%	2.5%
10X	ARS1	0.0%	3.5%	0.0%	0.6%	0.0%
10X	ARS2	0.0%	6.5%	0.0%	10.1%	0.0%
10X	ARS3	0.0%	3.2%	0.0%	2.0%	0.0%
10X	ARS4	0.0%	5.9%	0.0%	10.9%	0.0%
28R	AJZ1	1.7%	0.0%	0.0%	0.0%	0.0%
28R	AJZ2	1.5%	0.0%	0.0%	0.0%	0.0%
28R	AJZ3	4.1%	0.0%	0.0%	0.0%	0.0%
28R	AJZ4	2.1%	0.0%	0.0%	0.0%	0.0%
28R	APZ1	0.0%	0.0%	13.9%	0.0%	0.0%
28R	APZ2	0.0%	0.0%	13.9%	0.0%	5.1%
28R	APZ3	0.0%	0.0%	0.0%	0.0%	12.9%
28R	APZ4	0.0%	0.0%	0.0%	0.0%	2.3%
28R	ARZ1	0.0%	4.8%	0.0%	0.0%	0.0%
28R	ARZ2	0.0%	11.6%	0.0%	11.9%	0.0%
28R	ARZ3	0.0%	5.5%	0.0%	1.8%	0.0%
28R	ARZ4	0.0%	13.5%	0.0%	5.0%	0.0%

Table H-4, *Continued*
ARRIVAL FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2023) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28X	AJT1	10.1%	0.0%	0.0%	0.0%	0.0%
28X	AJT1D	11.6%	0.0%	0.0%	0.0%	0.0%
28X	AJT2	7.0%	0.0%	0.0%	0.0%	0.0%
28X	AJT2D	24.4%	0.0%	0.0%	0.0%	0.0%
28X	AJT3	0.0%	0.0%	18.9%	0.0%	0.7%
28X	AJT3D	0.0%	0.0%	0.0%	0.0%	24.6%
28X	AJT4	0.0%	0.0%	18.9%	0.0%	9.3%
28X	APT1	0.0%	0.0%	0.0%	0.0%	4.8%
28X	APT2	0.0%	0.0%	0.0%	0.0%	8.3%
28X	APT3	0.0%	4.6%	0.0%	0.0%	0.0%
28X	APT4	0.0%	5.2%	0.0%	14.9%	0.0%
28X	APT5	0.0%	9.5%	0.0%	17.4%	0.0%
28X	ART1	0.0%	5.7%	0.0%	7.4%	0.0%
28X	ART1D	0.0%	5.1%	0.0%	11.3%	0.0%
Total		100.0%	100%	100%	100%	100%

Day: 7:00 a.m. to 9:59 p.m.

Night: 10:00 p.m. to 6:59 a.m.

Note: 10X/28X denotes relocated Runway 10R/28L

Source: ANOMS data, Landrum & Brown, 2007.

Table H-5
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2023) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	DJW1	0.8%	0.0%	0.0%	0.0%	0.0%
10L	DJW2	0.2%	0.0%	0.0%	0.0%	0.0%
10L	DJW3	0.3%	0.0%	0.0%	0.0%	0.0%
10L	DJW4	0.9%	0.0%	0.0%	0.0%	0.0%
10L	DJW5	0.4%	0.0%	0.0%	0.0%	0.0%
10L	DPW1	0.0%	0.0%	5.0%	0.0%	0.1%
10L	DPW2	0.0%	0.0%	0.0%	0.0%	2.0%
10L	DPW3	0.0%	0.0%	5.0%	0.0%	3.2%
10L	DPW4	0.0%	0.0%	0.0%	0.0%	1.9%
10L	DRW1	0.0%	1.7%	0.0%	0.1%	0.0%
10L	DRW2	0.0%	2.1%	0.0%	1.9%	0.0%
10L	DRW3	0.0%	4.9%	0.0%	2.6%	0.0%
10L	DRW4	0.0%	2.2%	0.0%	1.3%	0.0%
10L	DRW5	0.0%	1.3%	0.0%	0.2%	0.0%
10X	DJS1	7.0%	0.0%	0.0%	0.0%	0.0%
10X	DJS2	0.4%	0.0%	0.0%	0.0%	0.0%
10X	DJS3	6.6%	0.0%	0.0%	0.0%	0.0%
10X	DJS4	8.4%	0.0%	0.0%	0.0%	0.0%
10X	DJS5	9.7%	0.0%	0.0%	0.0%	0.0%
10X	DPS1	0.0%	0.0%	0.0%	0.0%	6.9%
10X	DPS2	0.0%	0.0%	12.1%	0.0%	8.9%
10X	DPS3	0.0%	0.0%	0.0%	0.0%	4.3%
10X	DPS4	0.0%	0.0%	6.0%	0.0%	2.7%
10X	DPS5	0.0%	0.0%	6.0%	0.0%	0.0%
10X	DRS1	0.0%	3.1%	0.0%	0.3%	0.0%
10X	DRS2	0.0%	2.9%	0.0%	5.9%	0.0%
10X	DRS3	0.0%	4.5%	0.0%	3.8%	0.0%
10X	DRS4	0.0%	4.0%	0.0%	6.4%	0.0%
10X	DRS5	0.0%	6.1%	0.0%	5.5%	0.0%
10X	DRS6	0.0%	1.5%	0.0%	2.0%	0.0%
28R	DJZ1	0.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ1E	0.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ2	3.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ3	1.7%	0.0%	0.0%	0.0%	0.0%
28R	DJZ3E	0.1%	0.0%	0.0%	0.0%	0.0%
28R	DJZ4	0.9%	0.0%	0.0%	0.0%	0.0%
28R	DJZ5	0.7%	0.0%	0.0%	0.0%	0.0%

Table H-5, *Continued*
DEPARTURE FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2023) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
28R	DJZ6	0.7%	0.0%	0.0%	0.0%	0.0%
28R	DJZE	0.6%	0.0%	0.0%	0.0%	0.0%
28R	DPZ1	0.0%	0.0%	12.5%	0.0%	4.4%
28R	DPZ2	0.0%	0.0%	0.0%	0.0%	8.1%
28R	DPZ3	0.0%	0.0%	12.5%	0.0%	0.3%
28R	DPZ4	0.0%	0.0%	0.0%	0.0%	3.0%
28R	DPZ5	0.0%	0.0%	0.0%	0.0%	1.6%
28R	DPZ6	0.0%	0.0%	0.0%	0.0%	3.3%
28R	DRZ1	0.0%	3.5%	0.0%	1.5%	0.0%
28R	DRZ1E	0.0%	1.2%	0.0%	0.0%	0.0%
28R	DRZ2	0.0%	5.3%	0.0%	5.5%	0.0%
28R	DRZ3	0.0%	2.1%	0.0%	0.6%	0.0%
28R	DRZ3E	0.0%	0.7%	0.0%	0.0%	0.0%
28R	DRZ4	0.0%	1.7%	0.0%	0.6%	0.0%
28R	DRZ5	0.0%	7.8%	0.0%	6.2%	0.0%
28R	DRZ6	0.0%	2.3%	0.0%	0.0%	0.0%
28R	DRZ7	0.0%	5.8%	0.0%	3.0%	0.0%
28R	DRZE	0.0%	1.3%	0.0%	0.0%	0.0%
28X	DJT1	5.9%	0.0%	0.0%	0.0%	0.0%
28X	DJT2	0.7%	0.0%	0.0%	0.0%	0.0%
28X	DJT3	33.7%	0.0%	0.0%	0.0%	0.0%
28X	DJT4	10.3%	0.0%	0.0%	0.0%	0.0%
28X	DJT5	6.6%	0.0%	0.0%	0.0%	0.0%
28X	DPT1	0.0%	0.0%	20.5%	0.0%	18.8%
28X	DPT2	0.0%	0.0%	0.0%	0.0%	18.4%
28X	DPT3	0.0%	0.0%	20.5%	0.0%	0.7%
28X	DPT4	0.0%	0.0%	0.0%	0.0%	7.4%
28X	DPT5	0.0%	0.0%	0.0%	0.0%	4.0%
28X	DRT1	0.0%	9.3%	0.0%	12.8%	0.0%
28X	DRT2	0.0%	4.5%	0.0%	12.8%	0.0%
28X	DRT3	0.0%	5.4%	0.0%	2.6%	0.0%
28X	DRT4	0.0%	7.2%	0.0%	8.3%	0.0%
28X	DRT5	0.0%	7.8%	0.0%	16.0%	0.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%

Day: 7:00 a.m. to 9:59 p.m.

Night: 10:00 p.m. to 6:59 a.m.

Note: 10X/28X denotes relocated Runway 10R/28L

Source: ANOMS data, Landrum & Brown, 2007.

Table H-6
TOUCH-AND-GO FLIGHT TRACK UTILIZATION BY AIRCRAFT CATEGORY - FUTURE (2023) BASELINE
Port Columbus International Airport

Runway	Track	Aircraft Category				
		Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
10L	TG1	0.0%	0.0%	0.0%	0.0%	28.4%
28R	TG2	0.0%	0.0%	0.0%	0.0%	71.6%

H.1.5 AIRCRAFT WEIGHT AND TRIP LENGTH

Aircraft weight during departure is a factor in the dispersion of noise because it impacts the rate at which an aircraft is able to climb. Generally, heavier aircraft have a slower rate of climb and a wider dispersion of noise along their flight routes. Where specific aircraft weights are unknown, the INM uses the distance flown to the first stop as a surrogate for the weight, by assuming that the weight has a direct relationship with the fuel load necessary to reach the first destination. The Integrated Noise Model (INM) groups trip lengths into seven stage length categories, and assigns various aircraft weights associated with up to all seven categories. These categories are:

Category	Stage Length
1	0-500 nautical miles
2	500-1000 nautical miles
3	1000-1500 nautical miles
4	1500-2500 nautical miles
5	2500-3500 nautical miles
6	3500-4500 nautical miles
7	4500+ nautical miles

The trip lengths flown from CMH are based on scheduled operations for the baseline period. **Table H-7** indicates the proportion of the operations that fell within each of the seven trip length categories for Future (2023) Baseline noise contour. Results from the correlation of noise levels and altitude distances from the noise measurements (see Appendix B) found that in most cases the standard approach to assigning aircraft weights adequately represent the activity at CMH, however, during aircraft monitoring sessions it was noted that the Boeing 737-300, Airbus 320, and McDonnell Douglass MD-80 Series aircraft were consistently lower (and presumably heavier) than their distance-based stage length would define them to be. Therefore, a higher stage length was assigned when modeling these aircraft to more accurately reflect their measured noise levels and departure profiles. A complete discussion of the aircraft monitoring results is included in Appendix B.

Table H-7
DEPARTURE TRIP LENGTH DISTRIBUTION –
FUTURE (2023) BASELINE
Port Columbus International Airport

Stage Length	Large Jet	Commuter Jet	Commuter Prop	General Aviation Jet	General Aviation Prop
1	65.4%	87.9%	100.0%	100.0%	100.0%
2	16.7%	12.1%	0.0%	0.0%	0.0%
3	9.0%	0.0%	0.0%	0.0%	0.0%
4	9.0%	0.0%	0.0%	0.0%	0.0%
5	0.0%	0.0%	0.0%	0.0%	0.0%
6	0.0%	0.0%	0.0%	0.0%	0.0%
7	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Landrum & Brown, 2007

H.1.6 GROUND RUN-UP NOISE

Engine run-up locations and times were obtained and modeled in INM. Engine run-ups are primarily performed on regional jet and general aviation jet aircraft. These run-ups occur at three locations at CMH described below and shown on Exhibit C-13 in Appendix C, *Noise Methodology*. Nearly all engine run-ups occur during the nighttime (10:00 p.m. to 6:59 a.m.). **Table H-8** shows the number, types, and the duration of engine runups that were modeled for the Future (2023) Baseline.

- **Barrier A:** Located to the south of Concourse B, along the south edge of the terminal apron. Aircraft face either east or west, parallel to the wall, and are positioned on the north side of the barrier.
- **Barrier B:** Located just north of the southeast end of Taxiway G. Aircraft face east (preferred) or west between the two sound barrier walls. The majority of run-ups occur here due to the proximity to the American Eagle maintenance hangar.
- **Executive Jet Ramp:** Located on the north airfield, north of Runway 10L/28R. Aircraft face either east or west, parallel to the wall, and are positioned on the south side of the barrier.

Table H-8
GROUND RUN-UP OPERATIONS
FUTURE (2023) BASELINE CONDITIONS
Port Columbus International Airport

INM Aircraft Type	Average Daily Run-up Operations	Average Duration in Seconds	Power (Thrust) Settings
CL600	2.1	420	6000 lbs.

Source: Landrum & Brown, 2007.

H.2 NOISE EXPOSURE CONTOUR

The number of operations, runway use, flight track, and trip length data presented are used as input to the INM computer model for the calculation of noise exposure in the airport environs. **Exhibit H-1** reflects the average annual noise exposure pattern present at the airport during the current baseline period (2023) and **Table H-9** summarizes the area within each noise contour level. The noise contour does not represent the noise levels present on any specific day, but, rather, represents the energy-average of all 365 days of operation during the year. The noise contour pattern extends from the airport along each extended runway centerline, reflective of the flight tracks used by all aircraft. The relative distance of the contour from the airport along each route is a function of the frequency of use of each runway end for total arrivals and departures, as well as its use at night, and the type of aircraft assigned to it.

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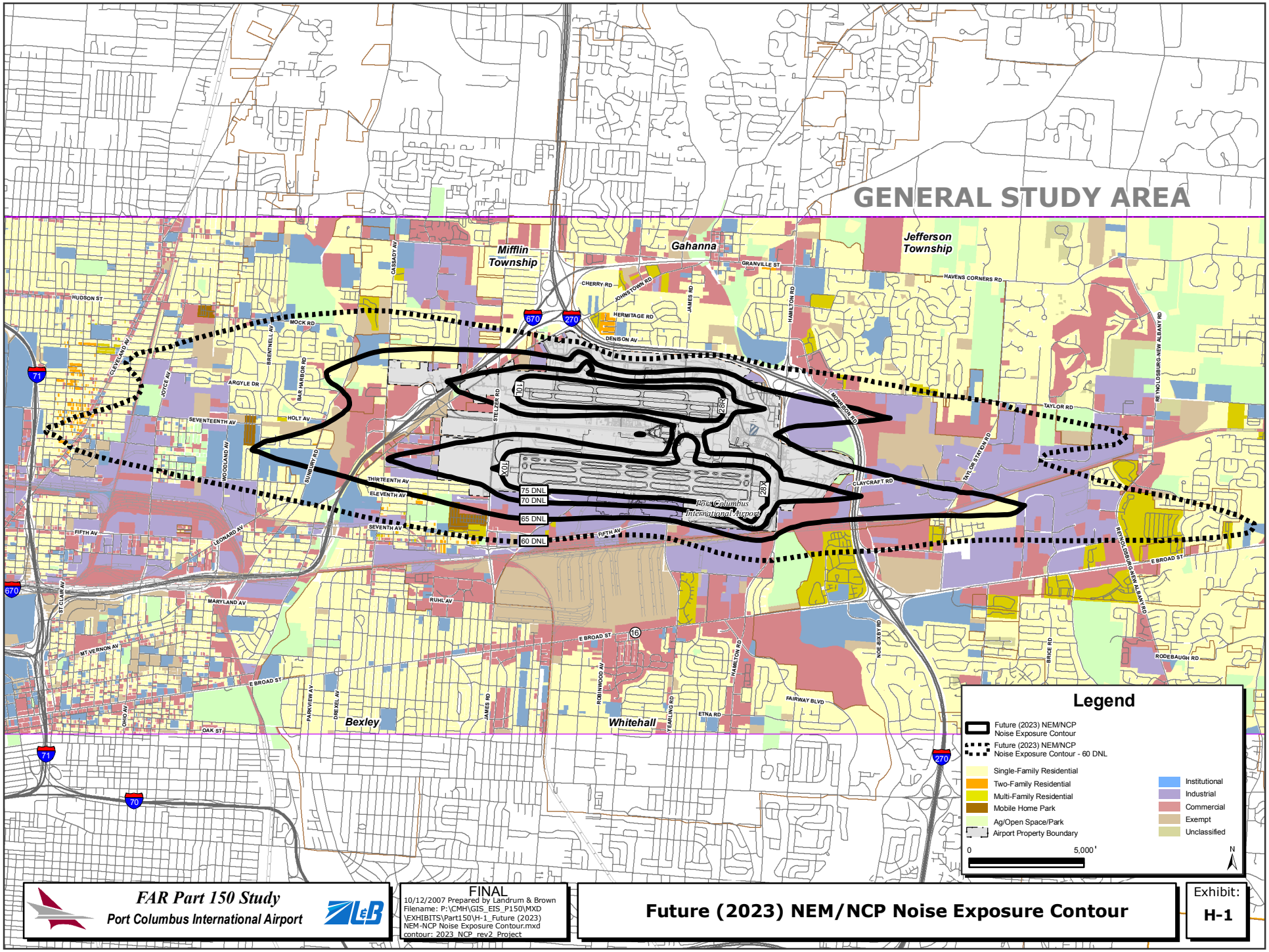

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/12/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\H-1_Future (2023) NEM-NCP Noise Exposure Contour.mxd
contour: 2023_NCP_rev2_Project

Future (2023) NEM/NCP Noise Exposure Contour

Exhibit: H-1

Table H-9
AREAS WITHIN EXISTING NOISE EXPOSURE CONTOUR (IN SQUARE MILES)
Port Columbus International Airport

CONTOUR RANGE	FUTURE (2023) BASELINE
60-65 DNL	6.5
65-70 DNL	3.3
70-75 DNL	1.2
75 + DNL	1.1
65 + DNL	5.6

Contour: 2023_NCP_rev2

Source: Landrum & Brown, 2007.

The shape of the noise contour is primarily a function of the combination of flight tracks and runway use at CMH. Analysis indicates that with the implementation of the NCP, the airport could operate in west flow (Runways 10L/10R) approximately 65 percent of the time and in east flow (Runways 28L/28R) approximately 35 percent of the time. As a result the noise contour is longer and wider to the west of the airport than it is to the east.

West of the airport, the noise contour primarily reflects usage by aircraft departing to the west and to a lesser degree aircraft arriving from the west. The 65 DNL noise contour extends approximately 2.2 miles beyond the west end of Runway 10R/28L and extends approximately 1.7 miles beyond the west end of Runway 10L/28R. This area is comprised of a mix of medium-density residential, commercial and industrial uses located in the City of Columbus and Mifflin Township. The 60 DNL noise contour extends approximately 3.9 miles beyond the west end of Runway 10R/28L and extends approximately 3.3 miles beyond the west end of Runway 10L/28R. The area between the 60 and 65 DNL is comprised of a mix of medium to high-density residential, commercial, and industrial uses located in the City of Columbus.

To the east of the airport, the noise contour primarily reflects usage by aircraft arriving from the east and to a lesser degree aircraft departing to the east. The 65 DNL noise contour extends approximately 2.3 miles east from the end of Runway 10R/28L and extends approximately 1.5 miles east from the end of Runway 10L/28R. The area east of the airport within the 65 DNL is comprised of commercial and industrial land uses and undeveloped land within the cities of Columbus and Gahanna. The 60 DNL noise contour extends approximately 4.2 miles beyond the east end of Runway 10R/28L and extends approximately 3.4 miles beyond Runway 10L/28R. The area between the 60 and 65 DNL is comprised of a mix of low to medium-density residential, commercial and industrial land uses and undeveloped property located in the cities of Columbus and Gahanna and Jefferson Township.

To the west the 70 DNL extends approximately 0.7 miles from the end of Runway 10L/28R and extends approximately 1.1 miles from the end of Runway 10R/28L. This area comprises commercial and industrial land uses. The 70 DNL extends approximately 0.4 miles to the east of Runway 10L/28R over airport property. The 70 DNL extends approximately 0.9 miles east of Runway 10R/28L over commercial and industrial land uses. This area comprises commercial and industrial land uses. The 75 DNL contour remains entirely over airport property and the Columbus International Air Center.

H.3 BASELINE NOISE CONTOUR INCOMPATIBILITIES

Summaries of the residential population, housing units, and noise-sensitive facilities affected by noise levels exceeding 60 DNL for the 2023 Baseline noise contours are provided in **Table H-10**. Approximately 736 homes and an estimated 1,818 residents will be located within the 65 DNL of the Future (2023) Baseline noise contour. Of those 736 housing units 679 are within the City of Columbus and 56 are within Mifflin Township. A total of 275 have received sound insulation (239 in Columbus and 36 in Mifflin Township) and the airport has obtained an avigation easement on one home. Of the remaining 460 unmitigated housing units, 99 are eligible for sound insulation but have not yet participated in the sound insulation program and 361 are newly impacted.

There are two churches, but no schools, libraries, hospitals or nursing homes located within the 65 DNL of the Future (2023) Baseline noise contour. There will be 5,966 housing units; an estimated 14,736 residents; 32 churches; and seven schools located within the 60-65 DNL of the Future (2023) Baseline noise contour.

Table H-10
2023 BASELINE HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,759**	**679**	**0**	**0**	**679**
Mitigated	1,134	240	0	0	240
Sound Insulated	413	239	0	0	239
Easement	721	1	0	0	1
Unmitigated	4,625	439	0	0	439
Eligible for Sound Insulation but not Insulated	89	79	0	0	79
Not Previously Mitigated	4,536	360	0	0	360
Mifflin Township	**12**	**56**	**0**	**0**	**56**
Mitigated	0	36	0	0	36
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated	12	20	0	0	20
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	11	1	0	0	1
Gahanna	**82**	**1**	**0**	**0**	**1**
Mitigated	3	0	0	0	0
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated	79	1	0	0	1
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	79	0	0	0	0
Jefferson Township	**113**	**0**	**0**	**0**	**0**
Mitigated	72	0	0	0	0
Sound Insulated	0	0	0	0	0
Easement	72	0	0	0	0
Unmitigated	41	0	0	0	0
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	41	0	0	0	0
Total Housing Units	**5,966**	**736**	**0**	**0**	**736**
Population					
Total Population	**14,736**	**1,818**	**0**	**0**	**1,818**
Noise-Sensitive Facilities					
Churches	32	2	0	0	0
Schools	7	0	0	0	0
Libraries	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

- Noise contours were generated using the Integrated FAA's Noise Model, Version 6.2 computer model.
- Housing counts are based on field verification.
- Population numbers are approximate based on the housing counts multiplied an estimated average number of persons per household based upon 2000 census housing to population ratios.

Source: Landrum & Brown, 2006.

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APPENDIX I
GRID POINT ANALYSIS

This Appendix provides maps and output grid reports detailing the existing noise levels, for Day-Night Average Sound Level, Sound Exposure Level, Maximum Level, and Time Above Level-65 noise metrics, at noise-sensitive facilities and at regularly spaced grid points. **Table I-1** provides a key for the noise-sensitive facility grid point locations, shown on **Exhibit I-1**. **Table I-2** provides the location of each regularly spaced grid point, shown on **Exhibit I-2**. **Table I-3** provides the noise levels at each noise-sensitive facility for the Existing (2006) Baseline and the Future (2012) Baseline. **Table I-4** provides the noise levels at each regularly spaced grid point for the Existing (2006) Baseline and the Future (2012) Baseline. **Table I-5** provides the noise levels at each noise-sensitive facility for the Future (2012) Baseline and the Future (2012) Noise Compatibility Program (NCP). **Table I-6** provides the noise levels at each regularly spaced grid point for the Future (2012) Baseline and the Future (2012) NCP.

Table I-1
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches		
C-1	Zion Lighthouse Spiritualist Church	-82.9846047	39.9661644
C-2	World Peace Healing Temple	-82.9874048	40.0081645
C-3	Woodland Christian Church	-82.9577035	39.9703643
C-4	Wilson Avenue Church	-82.9668039	39.9633643
C-5	Williams Temple Pentecostal Church	-82.9813046	40.0108645
C-6	Welsh Presbyterian Church (historical)	-82.9916050	39.9658644
C-7	Weber Road Alliance Church	-82.9830047	40.0233643
C-8	Way of Holiness Church	-82.9885049	39.9869645
C-9	Unveiling and Unfolding of the Truth Ministries	-82.9805045	39.9819645
C-10	University Bible Fellowship Church	-82.9971052	39.9972646
C-11	Union Tabernacle Church of God	-82.9663039	39.9750644
C-12	Union Grove Baptist Church	-82.9680039	39.9717644
C-14	The Greater 12th Baptist Church	-82.9741573	39.9978825
C-15	Trinity Episcopal Church	-82.9977053	39.9622644
C-16	Trinity Baptist Church	-82.9810045	39.9742644
C-17	Triedstone Baptist Church	-82.9813045	39.9833645
C-18	Travelers Rest Baptist Church	-82.9791045	39.9967645
C-19	Temple of Psychic Prophecy	-82.9980053	40.0144645
C-20	Temple of Faith Church of Deliverance	-82.9719986	40.0074984
C-21	Temple of Faith Church	-82.9690394	40.0101973
C-22	Temple Israel	-82.8559990	39.9772640
C-23	Temple Beth Shalom	-82.9185017	39.9722642
C-24	Taylor Station Church	-82.8333754	40.0016584
C-25	Tabernacle of Christian Fellowship	-82.9602036	39.9619643
C-26	Strong Tower Church of Christ	-82.9438029	39.9856644
C-27	Spring Hill Baptist Church	-82.9802045	39.9833645
C-28	Spanish Evangelistic Association of the Living God	-82.9657039	40.0167643
C-29	Lighthouse Community Baptist Church	-82.9723207	40.0062092
C-30	Solid Rock Baptist Church	-82.9766043	39.9892645
C-31	Sigsbee Avenue Church of God	-82.9646303	39.9940127
C-32	Shining Light Bible Mission Church	-82.9655039	40.0181643
C-33	Shiloh Baptist Church	-82.9827046	39.9708644
C-34	Shepard United Methodist Church	-82.9443029	39.9858644
C-35	Shady Grove Baptist Church of Christ	-82.9749042	39.9678644
C-36	Second Baptist Church	-82.9768043	39.9689644
C-37	Sanctified Temple Church of God in Christ	-82.9746534	40.0015575
C-38	Salvation Army Chapel Church	-82.9891050	40.0172644
C-39	Saint Thomas the Apostle Roman Catholic Church	-82.9318024	39.9856643
C-40	Saint Theresa's Shrine	-82.8600022	39.9766827
C-41	Saint Pius X Catholic Church	-82.7942962	39.9628638
C-42	Saint Philips Episcopal Church	-82.9568034	39.9711643
C-43	Saint Philip Lutheran Church	-82.9613036	39.9689643

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches , *Continued*		
C-44	Saint Peters Evangelical Lutheran Church	-82.9750011	40.0020961
C-45	Saint Paul's Episcopal Church	-82.9796045	39.9644643
C-46	Living Word Church	-82.9235020	39.9853643
C-47	Saint Paul African Methodist Episcopal Church	-82.9843047	39.9667644
C-48	Saint Mary's Macedonian Eastern Orthodox Church	-82.9057012	39.9700642
C-49	Saint Mark African Methodist Episcopal Church	-82.9707041	39.9758644
C-50	Saint Joseph Cathedral	-82.9946051	39.9631644
C-51	Saint Johns Baptist Church	-82.9799045	39.9883645
C-52	Saint John the Baptist Roman Catholic Church	-82.9991053	39.9772645
C-53	Saint James Baptist Church	-82.9749043	40.0136644
C-54	Saint Dominic Roman Catholic Church	-82.9735042	39.9747644
C-55	Saint Albans Church	-82.9385026	39.9619642
C-56	Ruth Temple Apostolic Original Holy Church of God	-82.9805045	39.9867645
C-57	Rose of Sharon Baptist Church	-82.9863048	39.9819645
C-58	Rose Hill Church of God	-82.8190973	39.9617639
C-59	Reynoldsburg Baptist Church	-82.8190973	39.9642639
C-60	Rehoboth Temple	-82.9718041	39.9681643
C-61	Refuge Church of Christ	-82.9666039	39.9622643
C-62	Purple Rose Temple of Truth Spiritualist Church	-82.9580035	39.9833644
C-63	Praise Temple Christian Methodist Episcopal Church	-82.9680039	39.9747644
C-64	Pleasant Hill Church of the Living God	-82.9696040	39.9675643
C-65	Pilgrim Baptist Church	-82.9727041	39.9664643
C-66	Pentecostal House of Prayer	-82.9699041	40.0092644
C-67	Peace Baptist Mission	-82.9573235	40.0043712
C-68	Pathway to Power Baptist Church	-82.9771044	40.0139644
C-69	Original Glorious Church of God in Christ	-82.9624038	40.0089644
C-70	Old Peace Lutheran Church	-82.8780001	40.0194640
C-71	Ohio Union Steadfast Primitive Church	-82.9685040	39.9642643
C-72	Northside Church of God	-82.9738466	40.0025778
C-73	Northeast Church of Christ	-82.9602037	40.0186643
C-74	North Linden Baptist Church	-82.9641039	40.0231643
C-76	Beginning Missionary Baptist Church	-82.9749530	40.0009016
C-77	New Bethlehem Baptist Church	-82.9805045	39.9811645
C-78	Mount Zion Missionary Baptist Church	-82.9646038	39.9922645
C-79	Mount Zion Church of God in Christ	-82.9651997	39.9995253
C-80	Mount Zion Church of God in Christ	-82.9638038	39.9764644
C-81	Mount Victory Baptist Church	-82.9791045	39.9958645
C-82	Mount Vernon Avenue Missionary Baptist Church	-82.9660039	39.9736644
C-83	Mount Vernon African Methodist Episcopal Church	-82.9718041	39.9722644
C-84	Mount Sinai Missionary Baptist Church	-82.9482031	39.9828644
C-85	Mount Sinai Holy Temple	-82.9971052	39.9853645
C-86	Great St. Paul Church	-82.9540680	40.0005413

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches , *Continued*		
C-87	Mount Pisgah Baptist Church	-82.9888049	39.9833645
C-88	Mount Pisgah Baptist Church	-82.9618038	40.0131644
C-89	Mount Nebo Baptist Mission	-82.9893049	39.9831645
C-90	Living Charity Church	-82.9797001	40.0001684
C-91	Mount Herman Baptist Church	-82.9351257	40.0168568
C-92	Mount Calvary Holy Church	-82.9691040	39.9731644
C-93	Metropolitan Baptist Church	-82.9743042	39.9628643
C-94	Meredith Temple Church of God in Christ	-82.9713041	39.9728644
C-95	Maynard Avenue Baptist Church	-82.9802045	40.0106645
C-96	Masjid Al-Islam Mosque	-82.9563034	39.9619643
C-97	Man in Christ Ministries	-82.9693041	40.0108644
C-98	Loving Charity Baptist Church	-82.9468030	39.9856644
C-99	Love Zion Baptist Church	-82.9616036	39.9644643
C-100	Lord of Life Fellowship Church	-82.9230020	39.9786643
C-101	Lord Jesus Christ of Apostolic Faith Church	-82.9877048	39.9844645
C-102	Living Faith Apostolic Church	-82.9495428	40.0110365
C-103	Little Flock Church	-82.9818046	39.9667644
C-104	Linden United Methodist Church	-82.9671040	40.0200643
C-105	Linden Spiritualist Church	-82.9643039	40.0206643
C-106	Lee Avenue United Methodist Church	-82.9634649	39.9928566
C-107	Kingdom Hall of Jehovah's Witnesses	-82.9782045	40.0144644
C-108	New Horizons Christian Fellowship Church	-82.9499032	39.9903644
C-109	Jordan Baptist Church	-82.9546421	40.0058980
C-110	Jireh House Full Gospel Church	-82.9707041	39.9750644
C-111	Jesus People Evangelistic Center	-82.9563035	40.0153643
C-112	Jerusalem Tabernacle Baptist Church	-82.9605036	39.9786644
C-113	Jerusalem Baptist Church	-82.9633206	39.9960213
C-114	Islamic Center Church	-82.9630037	39.9669643
C-115	International Gospel Center	-82.9607036	39.9622643
C-116	Independent Missionary Church of God in Christ	-82.9446029	39.9856644
C-117	House of God Holy Church	-82.9632037	39.9653643
C-118	Holy Temple Church of God	-82.9784321	39.9982265
C-119	Holy Church of God	-82.9646038	39.9725644
C-120	Holy Carmel Holy Church of America	-82.9632037	39.9819644
C-121	Agudas Achim Congregation	-82.9299022	39.9694642
C-122	Apostolic Assembly of Our Lord Jesus Christ Church	-82.9607036	39.9628643
C-123	Apostolic Faith Tabernacle	-82.9463030	39.9861644
C-124	Apostolic Glorious Church	-82.9810045	39.9756644
C-125	Asbury Church	-82.9602036	39.9714643
C-126	Bethany Presbyterian Church	-82.9799045	39.9689644
C-127	Bethel African Methodist Episcopal Church	-82.9714014	40.0078506
C-128	Bethel Baptist Church	-82.9788044	39.9703644

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches , *Continued*		
C-129	Bethel Holy Temple Church of God	-82.9799045	39.9808644
C-130	Broad Street Christian Church	-82.9730042	39.9653643
C-131	Broad Street Presbyterian Church	-82.9802045	39.9650644
C-132	Broad Street United Methodist Church	-82.9874048	39.9633644
C-133	Calhoun's Memorial Temple Church	-82.9693040	39.9686643
C-134	Calvary Tremont Baptist Church	-82.9710041	39.9775644
C-135	Power of Faith Ministries	-82.9483653	40.0119643
C-136	Centenary United Methodist Church	-82.9766043	39.9681644
C-137	Christ Memorial Baptist Church	-82.9735042	39.9678644
C-138	Christian Home Ministry Church	-82.9702040	39.9639643
C-139	Church in Jesus Christ	-82.9568035	39.9817644
C-140	Pleasant Green Baptist Church	-82.9690490	40.0116124
C-141	Church of Christ Apostolic Faith	-82.9492972	39.9931296
C-142	Church of God and Saint of Christ	-82.9688040	39.9736644
C-143	Church of God of Franklin County	-82.9774044	40.0144644
C-144	Church of God of Prophecy	-82.9552825	40.0119694
C-145	Church of Spiritual Unity	-82.9473581	40.0117257
C-146	Church of Universal Forces	-82.9741042	39.9689644
C-147	Church of the Living God	-82.9677039	39.9625643
C-148	Church of the Living God	-82.9813045	39.9714644
C-149	Columbus Chinese Christian Church	-82.9880049	40.0103645
C-150	Columbus Eastwood Seventh Day Adventist Church	-82.9052011	39.9669642
C-151	Community Baptist Church	-82.9230020	39.9764642
C-152	Consolidated Baptist Church	-82.9880048	39.9883645
C-153	Corinthian Baptist Church	-82.9193018	39.9844643
C-154	Cornerstone Church	-82.9621038	40.0119644
C-156	Deliverance Church of God	-82.9466030	39.9856644
C-157	East Linden United Methodist Church	-82.9563036	40.0217643
C-158	East Mount Olivet Baptist Church	-82.9263021	39.9908643
C-159	Eastminster Church	-82.9185017	39.9722642
C-160	Eliezer Church of Our Lord Jesus Christ	-82.9793045	39.9942645
C-161	Emmanuel Community Baptist Church	-82.9630037	39.9758644
C-162	Emmanuel Holy Church of God	-82.9863048	39.9894645
C-163	Emmanuel Tabernacle Baptist Church	-82.9802045	39.9714644
C-165	Fairmoor Presbyterian Church	-82.9138015	39.9642642
C-166	Faith Mission United Methodist Church	-82.9732042	39.9714644
C-167	Faith Tabernacle	-82.9793045	39.9897645
C-168	Faith Tabernacle Church of God in Christ	-82.9606168	40.0047477
C-169	Faith Temple Apostolic Holiness Church of God	-82.9685040	39.9628643
C-170	Faith Temple House of Prayer	-82.9893049	39.9806645
C-171	Christian Outreach Ministries	-82.9393435	40.0010709
C-172	First Baptist Church	-82.9849047	39.9639644

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches , *Continued*		
C-173	First Congregational Church	-82.9891049	39.9639644
C-174	First Spiritualist Church of Sprit Revelation	-82.9832047	40.0233643
C-175	First Spiritualist Temple	-82.9927050	39.9614644
C-176	Flintridge Baptist Church	-82.9649038	39.9647643
C-177	Free Pentecostal Church of God	-82.9885049	40.0144644
C-178	Freewill Pentecostal Holiness Church of Christ	-82.9805045	39.9750644
C-179	Crack House Ministries Church	-82.9721698	40.0053035
C-180	Anointed Touch Ministries	-82.9435559	40.0109054
C-181	Galilee Baptist Church	-82.9624038	40.0106644
C-182	Gay Tabernacle Baptist Church	-82.9471194	39.9926135
C-183	Gods House of Prayer	-82.9602036	39.9833644
C-184	Good Neighbor Community Church	-82.9971052	39.9911646
C-185	Good Shepherd Baptist Church	-82.9682755	40.0134281
C-186	Good Shepherd Church	-82.9249020	39.9756642
C-187	Goodwill Baptist Church	-82.9602036	39.9839644
C-188	Gospel Tabernacle Church	-82.9696040	39.9733644
C-189	Grace Bible Baptist Church	-82.9968052	39.9869645
C-190	Grace Temple	-82.9682040	39.9753644
C-191	Greater Emmanuel Apostolic Faith Church	-82.9671040	40.0206643
C-192	Greater Emmanuel Church	-82.9891049	39.9861645
C-193	Greater Harvest Baptist Church	-82.9522955	40.0123229
C-194	Greater Liberty Temple Church	-82.9757043	39.9969645
C-195	Greater Life Evangelistic Temple	-82.9688040	39.9761644
C-196	Greater Light Church of the Living God	-82.9891050	40.0222644
C-197	Havens Corners Church of Christ in Christian Union	-82.8155868	40.0195883
C-198	Higher Ground Always Abounding Assembly Church	-82.9799045	39.9825645
C-199	Highway Church of God	-82.9638038	39.9772644
C-200	Lutheran Village of Columbus	-82.9358334	39.9886229
C-201	Victory In Pentecost	-82.8974499	40.0129735
C-202	Mifflin Presbyterian Church	-82.8772674	40.0183931
C-203	Christian Center Church	-82.8713260	40.0102344
C-204	Shepherd Church of the Nazarene and Christian School	-82.8682413	40.0085132
C-205	Everlasting Life Ministries	-82.9641675	39.9990472
C-206	New Tabernacle Church of God in Christ	-82.9618693	39.9986820
C-207	Ephphatha New Ministries	-82.9617941	39.9964605
C-208	Paradise Baptist Church	-82.9644061	39.9976684
C-209	Temple of Faith Church of the Living God	-82.9497840	39.9979260
C-210	Aenon Miss Baptist Church	-82.9500760	39.9965811
C-211	Faith Comes by Hearing Christian Center	-82.9261395	39.9851320
C-212	Apostolic House of Worship	-82.9256604	39.9850738
C-213	Redeemed Christian Church of God	-82.9274760	39.9851843
C-214	Mt. Judia Church	-82.8552278	39.9938487

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Churches , *Continued*		
C-215	United Baptist Church	-82.8385862	40.0039173
C-216	Country Fellowship Church	-82.8382682	40.0006487
C-217	East Pointe Christian Church	-82.7936501	40.0009371
C-218	East Side Brethren Grace Church	-82.7959812	39.9865258
C-219	St. Mary Church	-82.7919626	39.9775493
C-220	Church of God Militant Pillar and the Ground of Truth	-82.9517813	40.0123688
C-221	Columbus Christian Center Church	-82.9272631	40.0188899
C-222	Eternal Life Church of Christ	-82.9415710	40.0000954
C-223	Advent United Church of Christ	-82.9298539	40.0180424
C-224	Jerusalem Deliverance Church of God in Christ	-82.9496954	39.9998561
C-225	The House of God Church	-82.9692921	40.0012997
C-226	Terry Lee Center	-82.9645725	39.9946489
C-230	St. Matthews Church	-82.8538655	40.0171749
C-231	Greater Liberty Temple	-82.9764799	39.9974513
C-232	Wonderland Community Church	-82.8708513	40.0039594
C-233	Greater Works Ministries	-82.8405157	39.9905272
	Hospitals		
H-1	University Hospital East	-82.9632037	39.9706643
H-2	Mount Carmel Hospital East	-82.8426984	39.9772640
	Libraries		
L-1	Gahanna Library	-82.8698597	40.0188950
L-2	Columbus Library Linden Branch	-82.9683324	40.0126646
L-3	Martin Luther King Library	-82.9585059	39.9689615
L-4	Shepard Library	-82.9411468	39.9849509
L-5	Whitehall Library	-82.8849630	39.9746927
	Schools		
S-1	Windsor Alternative Elementary School	-82.9743042	39.9953645
S-2	Trevitt Elementary School	-82.9713041	39.9764644
S-3	The Columbus Academy	-82.9482030	39.9619642
S-4	South Mifflin Elementary School	-82.9446438	40.0051709
S-5	Shepard Street School (historical)	-82.8768001	40.0200640
S-6	Shepard School	-82.9449029	39.9867644
S-7	School Number 5 (historical)	-82.8562990	39.9783640
S-8	Saint Thomas the Apostle School	-82.9318024	39.9861643
S-9	Saint Pius School	-82.7948962	39.9622638
S-10	Saint Peters School	-82.9877048	39.9869645
S-11	Saint Patrick's School	-82.9918050	39.9689644
S-12	Saint Matthews School	-82.8539523	40.0159593
S-13	Saint Dominic School	-82.9743042	39.9747644
S-14	Saint Charles Seminary	-82.9474030	39.9692643
S-15	Saint Augustine School	-82.9683008	40.0141117
S-16	Rosemont High School	-82.9432030	40.0197642

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Schools , *Continued*		
S-17	Rose More School	-82.8720996	39.9619640
S-18	Rose Hill Elementary School	-82.8162972	39.9658639
S-19	Pilgrim Elementary School	-82.9610036	39.9761644
S-20	Ohio Dominican College	-82.9413028	39.9925644
S-22	Monroe Junior High School	-82.9777044	39.9742644
S-23	Milo School	-82.9885049	39.9831645
S-24	Mifflin Junior High School	-82.9276155	40.0224929
S-25	Mifflin High School	-82.9325289	40.0233743
S-26	Maryland Avenue Elementary School	-82.9291022	39.9769643
S-27	Linmoor Alternative School	-82.9810046	40.0061645
S-28	Linden McKinley High School	-82.9737490	40.0097375
S-29	Linden Elementary School	-82.9643039	40.0214643
S-30	Lincoln Schools	-82.8656996	40.0156640
S-31	Lincoln School	-82.8763001	40.0214640
S-32	Lincoln High School	-82.8651996	40.0156640
S-33	Lincoln Elementary School	-82.8623899	40.0174478
S-34	Leonard School	-82.9596036	39.9828644
S-35	Kay Avenue Elementary School	-82.8717996	39.9642641
S-36	Karl F Smith Bible School	-82.9490415	39.9931161
S-37	Holy Spirit School	-82.8841002	39.9733641
S-38	Hamilton School	-82.9802374	40.0074530
S-39	Goshen Lane Elementary School	-82.8935008	40.0111642
S-40	Garfield School	-82.9793044	39.9703644
S-41	Franklin Middle School	-82.9630037	39.9617643
S-42	Fort Hayes Career Center	-82.9855047	39.9731644
S-43	Felton School	-82.9782044	39.9747644
S-44	Fairmoor Elementary School	-82.9116014	39.9619642
S-45	Fair Elementary School	-82.9632037	39.9631643
S-46	Etna Road Elementary School	-82.8799000	39.9642641
S-47	CMHA Institution	-82.9830081	39.9939537
S-48	Eastwood Avenue School	-82.9655038	39.9672643
S-49	Eastmoor Junior High School	-82.9082013	39.9706642
S-50	Eastmoor High School	-82.9088013	39.9639642
S-51	Eastgate Elementary School	-82.9516032	39.9747643
S-52	East Linden Elementary School	-82.9518033	40.0178643
S-53	East High School	-82.9613036	39.9672643
S-54	East Columbus Elementary School	-82.9235020	39.9864643
S-55	East Broad Street School	-82.8974008	39.9733642
S-56	Duxberry Park School	-82.9611402	40.0086513
S-57	Douglas Alternative Elementary School	-82.9771043	39.9636643
S-58	Columbus State Community College	-82.9868048	39.9686644
S-59	Columbus School for Girls	-82.9391026	39.9681643

Table I-1, *Continued*
NOISE-SENSITIVE FACILITIES
Port Columbus International Airport

Map ID	Name	LONGITUDE	LATITUDE
	Schools , *Continued*		
S-60	Columbus Community College	-82.9866048	39.9692644
S-61	Columbus College of Art and Design	-82.9880048	39.9647644
S-62	Columbus Alternative High School	-82.9807046	40.0194644
S-63	Champion Alternative Middle School	-82.9680039	39.9703643
S-64	Broadleigh Elementary School	-82.9216019	39.9753642
S-65	Brentnell Alternative Elementary School	-82.9485816	39.9946031
S-66	Bexley Junior High School	-82.9299022	39.9647642
S-67	Bexley High School	-82.9302022	39.9633642
S-68	Beechwood Elementary School	-82.8938006	39.9647641
S-69	Arlington Park Elementary School	-82.9448881	40.0118016
S-70	Agudas Achim School	-82.9274021	39.9700642
S-71	Columbus State Community College	-82.8658048	40.0175165
S-72	Columbus School for Girls	-82.9322192	40.0087476
S-73	Waggoner Road Middle School	-82.7906636	39.9820518
S-74	FCI Academy	-82.9506882	40.0115407
S-75	Gladstone Elementary School	-82.9703191	40.0068055

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GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Bexley

Whitehall

Reynoldsburg

Truro Townhsip

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

Legend

- Church
- School
- Airport Property Boundary
- Library
- Hospital

0 4,000 N

FAR Part 150 Study
Port Columbus International Airport

FINAL
11/2/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\I-1_Noise-Sensitive Facilities Grid Point Location Map.mxd

Noise-Sensitive Facilities Grid Point Location Map

Exhibit: **I-1**

Table I-2
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
A1	39.930433	-83.114249
A2	39.938005	-83.113586
A3	39.945577	-83.112923
A4	39.953149	-83.112259
A5	39.960721	-83.111596
A6	39.968293	-83.110932
A7	39.975865	-83.110268
A8	39.983437	-83.109604
A9	39.991009	-83.108940
A10	39.998581	-83.108275
A11	40.006153	-83.107611
A12	40.013725	-83.106946
A13	40.021297	-83.106281
A14	40.028868	-83.105616
A15	40.036440	-83.104951
A16	40.044012	-83.104286
A17	40.051584	-83.103621
A18	40.059156	-83.102955
A19	40.066728	-83.102289
A20	40.074300	-83.101624
A21	40.081872	-83.100958
A22	40.089444	-83.100292
A23	40.097016	-83.099625
B1	39.929922	-83.104414
B2	39.937494	-83.103750
B3	39.945066	-83.103085
B4	39.952638	-83.102421
B5	39.960210	-83.101756
B6	39.967782	-83.101091
B7	39.975354	-83.100426
B8	39.982925	-83.099761
B9	39.990497	-83.099096
B10	39.998069	-83.098430
B11	40.005641	-83.097765
B12	40.013213	-83.097099
B13	40.020785	-83.096433
B14	40.028357	-83.095767
B15	40.035929	-83.095101
B16	40.043501	-83.094434
B17	40.051072	-83.093768
B18	40.058644	-83.093101
B19	40.066216	-83.092434
B20	40.073788	-83.091768

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
B21	40.081360	-83.091101
B22	40.088932	-83.090433
B23	40.096504	-83.089766
C1	39.929410	-83.094579
C2	39.936982	-83.093913
C3	39.944554	-83.093248
C4	39.952126	-83.092582
C5	39.959698	-83.091916
C6	39.967270	-83.091250
C7	39.974841	-83.090584
C8	39.982413	-83.089918
C9	39.989985	-83.089252
C10	39.997557	-83.088585
C11	40.005129	-83.087918
C12	40.012701	-83.087252
C13	40.020272	-83.086585
C14	40.027844	-83.085917
C15	40.035416	-83.085250
C16	40.042988	-83.084583
C17	40.050560	-83.083915
C18	40.058132	-83.083248
C19	40.065703	-83.082580
C20	40.073275	-83.081912
C21	40.080847	-83.081244
C22	40.088419	-83.080575
C23	40.095991	-83.079907
D1	39.928898	-83.084743
D2	39.936469	-83.084077
D3	39.944041	-83.083410
D4	39.951613	-83.082744
D5	39.959185	-83.082077
D6	39.966757	-83.081410
D7	39.974329	-83.080743
D8	39.981900	-83.080075
D9	39.989472	-83.079408
D10	39.997044	-83.078740
D11	40.004616	-83.078072
D12	40.012187	-83.077404
D13	40.019759	-83.076736
D14	40.027331	-83.076068
D15	40.034903	-83.075400
D16	40.042475	-83.074731
D17	40.050046	-83.074063

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
D18	40.057618	-83.073394
D19	40.065190	-83.072725
D20	40.072762	-83.072056
D21	40.080333	-83.071387
D22	40.087905	-83.070717
D23	40.095477	-83.070048
E1	39.928384	-83.074908
E2	39.935956	-83.074241
E3	39.943528	-83.073573
E4	39.951100	-83.072905
E5	39.958671	-83.072237
E6	39.966243	-83.071569
E7	39.973815	-83.070901
E8	39.981386	-83.070233
E9	39.988958	-83.069564
E10	39.996530	-83.068895
E11	40.004102	-83.068227
E12	40.011673	-83.067558
E13	40.019245	-83.066888
E14	40.026817	-83.066219
E15	40.034389	-83.065550
E16	40.041960	-83.064880
E17	40.049532	-83.064210
E18	40.057104	-83.063540
E19	40.064675	-83.062870
E20	40.072247	-83.062200
E21	40.079819	-83.061530
E22	40.087390	-83.060859
E23	40.094962	-83.060189
F1	39.927870	-83.065073
F2	39.935442	-83.064405
F3	39.943013	-83.063736
F4	39.950585	-83.063067
F5	39.958157	-83.062398
F6	39.965728	-83.061729
F7	39.973300	-83.061060
F8	39.980872	-83.060390
F9	39.988443	-83.059720
F10	39.996015	-83.059051
F11	40.003587	-83.058381
F12	40.011158	-83.057711
F13	40.018730	-83.057040
F14	40.026302	-83.056370

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
F15	40.033873	-83.055700
F16	40.041445	-83.055029
F17	40.049017	-83.054358
F18	40.056588	-83.053687
F19	40.064160	-83.053016
F20	40.071732	-83.052345
F21	40.079303	-83.051673
F22	40.086875	-83.051002
F23	40.094446	-83.050330
G1	39.927355	-83.055239
G2	39.934927	-83.054569
G3	39.942498	-83.053899
G4	39.950070	-83.053229
G5	39.957641	-83.052559
G6	39.965213	-83.051889
G7	39.972785	-83.051218
G8	39.980356	-83.050548
G9	39.987928	-83.049877
G10	39.995500	-83.049206
G11	40.003071	-83.048535
G12	40.010643	-83.047864
G13	40.018214	-83.047193
G14	40.025786	-83.046521
G15	40.033358	-83.045850
G16	40.040929	-83.045178
G17	40.048501	-83.044506
G18	40.056072	-83.043834
G19	40.063644	-83.043162
G20	40.071215	-83.042489
G21	40.078787	-83.041817
G22	40.086359	-83.041144
G23	40.093930	-83.040472
H1	39.926839	-83.045404
H2	39.934411	-83.044733
H3	39.941982	-83.044062
H4	39.949554	-83.043391
H5	39.957125	-83.042720
H6	39.964697	-83.042049
H7	39.972268	-83.041377
H8	39.979840	-83.040706
H9	39.987412	-83.040034
H10	39.994983	-83.039362
H11	40.002555	-83.038690

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
H12	40.010126	-83.038018
H13	40.017698	-83.037345
H14	40.025269	-83.036673
H15	40.032841	-83.036000
H16	40.040412	-83.035327
H17	40.047984	-83.034654
H18	40.055555	-83.033981
H19	40.063127	-83.033308
H20	40.070698	-83.032634
H21	40.078270	-83.031961
H22	40.085841	-83.031287
H23	40.093413	-83.030613
I1	39.926322	-83.035570
I2	39.933894	-83.034898
I3	39.941465	-83.034226
I4	39.949037	-83.033554
I5	39.956608	-83.032881
I6	39.964180	-83.032209
I7	39.971751	-83.031536
I8	39.979323	-83.030864
I9	39.986894	-83.030191
I10	39.994466	-83.029518
I11	40.002037	-83.028845
I12	40.009609	-83.028171
I13	40.017180	-83.027498
I14	40.024752	-83.026824
I15	40.032323	-83.026150
I16	40.039895	-83.025476
I17	40.047466	-83.024802
I18	40.055038	-83.024128
I19	40.062609	-83.023454
I20	40.070181	-83.022779
I21	40.077752	-83.022105
I22	40.085323	-83.021430
I23	40.092895	-83.020755
J1	39.925805	-83.025735
J2	39.933376	-83.025062
J3	39.940948	-83.024389
J4	39.948519	-83.023716
J5	39.956090	-83.023043
J6	39.963662	-83.022369
J7	39.971233	-83.021695
J8	39.978805	-83.021022

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
J9	39.986376	-83.020348
J10	39.993948	-83.019674
J11	40.001519	-83.018999
J12	40.009091	-83.018325
J13	40.016662	-83.017650
J14	40.024233	-83.016976
J15	40.031805	-83.016301
J16	40.039376	-83.015626
J17	40.046948	-83.014951
J18	40.054519	-83.014275
J19	40.062090	-83.013600
J20	40.069662	-83.012924
J21	40.077233	-83.012249
J22	40.084805	-83.011573
J23	40.092376	-83.010897
K1	39.925286	-83.015901
K2	39.932858	-83.015227
K3	39.940429	-83.014553
K4	39.948000	-83.013879
K5	39.955572	-83.013204
K6	39.963143	-83.012530
K7	39.970715	-83.011855
K8	39.978286	-83.011180
K9	39.985857	-83.010505
K10	39.993429	-83.009830
K11	40.001000	-83.009154
K12	40.008571	-83.008479
K13	40.016143	-83.007803
K14	40.023714	-83.007128
K15	40.031286	-83.006452
K16	40.038857	-83.005775
K17	40.046428	-83.005099
K18	40.054000	-83.004423
K19	40.061571	-83.003746
K20	40.069142	-83.003070
K21	40.076714	-83.002393
K22	40.084285	-83.001716
K23	40.091856	-83.001039
L1	39.924767	-83.006067
L2	39.932338	-83.005392
L3	39.939910	-83.004717
L4	39.947481	-83.004041
L5	39.955052	-83.003366

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
L6	39.962624	-83.002690
L7	39.970195	-83.002014
L8	39.977766	-83.001338
L9	39.985338	-83.000662
L10	39.992909	-82.999986
L11	40.000480	-82.999310
L12	40.008052	-82.998633
L13	40.015623	-82.997956
L14	40.023194	-82.997279
L15	40.030765	-82.996602
L16	40.038337	-82.995925
L17	40.045908	-82.995248
L18	40.053479	-82.994570
L19	40.061051	-82.993893
L20	40.068622	-82.993215
L21	40.076193	-82.992537
L22	40.083764	-82.991859
L23	40.091336	-82.991181
M1	39.924247	-82.996233
M2	39.931818	-82.995557
M3	39.939389	-82.994881
M4	39.946961	-82.994204
M5	39.954532	-82.993528
M6	39.962103	-82.992851
M7	39.969675	-82.992174
M8	39.977246	-82.991497
M9	39.984817	-82.990820
M10	39.992388	-82.990142
M11	39.999960	-82.989465
M12	40.007531	-82.988787
M13	40.015102	-82.988109
M14	40.022673	-82.987431
M15	40.030245	-82.986753
M16	40.037816	-82.986075
M17	40.045387	-82.985397
M18	40.052958	-82.984718
M19	40.060529	-82.984039
M20	40.068101	-82.983361
M21	40.075672	-82.982682
M22	40.083243	-82.982002
M23	40.090814	-82.981323
N1	39.923726	-82.986399
N2	39.931297	-82.985722

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
N3	39.938868	-82.985045
N4	39.946440	-82.984367
N5	39.954011	-82.983690
N6	39.961582	-82.983012
N7	39.969153	-82.982334
N8	39.976724	-82.981656
N9	39.984296	-82.980977
N10	39.991867	-82.980299
N11	39.999438	-82.979620
N12	40.007009	-82.978942
N13	40.014580	-82.978263
N14	40.022152	-82.977584
N15	40.029723	-82.976905
N16	40.037294	-82.976225
N17	40.044865	-82.975546
N18	40.052436	-82.974866
N19	40.060007	-82.974186
N20	40.067579	-82.973506
N21	40.075150	-82.972826
N22	40.082721	-82.972146
N23	40.090292	-82.971466
O1	39.923204	-82.976566
O2	39.930775	-82.975888
O3	39.938346	-82.975209
O4	39.945918	-82.974530
O5	39.953489	-82.973852
O6	39.961060	-82.973173
O7	39.968631	-82.972494
O8	39.976202	-82.971814
O9	39.983773	-82.971135
O10	39.991345	-82.970456
O11	39.998916	-82.969776
O12	40.006487	-82.969096
O13	40.014058	-82.968416
O14	40.021629	-82.967736
O15	40.029200	-82.967056
O16	40.036771	-82.966375
O17	40.044342	-82.965695
O18	40.051914	-82.965014
O19	40.059485	-82.964333
O20	40.067056	-82.963652
O21	40.074627	-82.962971
O22	40.082198	-82.962290

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
O23	40.089769	-82.961608
P1	39.922682	-82.966732
P2	39.930253	-82.966053
P3	39.937824	-82.965373
P4	39.945395	-82.964694
P5	39.952966	-82.964014
P6	39.960537	-82.963334
P7	39.968108	-82.962654
P8	39.975679	-82.961973
P9	39.983250	-82.961293
P10	39.990821	-82.960612
P11	39.998392	-82.959932
P12	40.005964	-82.959251
P13	40.013535	-82.958570
P14	40.021106	-82.957889
P15	40.028677	-82.957207
P16	40.036248	-82.956526
P17	40.043819	-82.955844
P18	40.051390	-82.955162
P19	40.058961	-82.954480
P20	40.066532	-82.953798
P21	40.074103	-82.953116
P22	40.081674	-82.952434
P23	40.089245	-82.951751
Q1	39.922158	-82.956899
Q2	39.929729	-82.956219
Q3	39.937300	-82.955538
Q4	39.944871	-82.954857
Q5	39.952442	-82.954176
Q6	39.960013	-82.953495
Q7	39.967584	-82.952814
Q8	39.975155	-82.952133
Q9	39.982726	-82.951451
Q10	39.990297	-82.950769
Q11	39.997868	-82.950088
Q12	40.005439	-82.949406
Q13	40.013010	-82.948724
Q14	40.020582	-82.948041
Q15	40.028153	-82.947359
Q16	40.035724	-82.946676
Q17	40.043295	-82.945993
Q18	40.050866	-82.945311
Q19	40.058436	-82.944628

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
Q20	40.066007	-82.943944
Q21	40.073578	-82.943261
Q22	40.081149	-82.942578
Q23	40.088720	-82.941894
R1	39.921634	-82.947066
R2	39.929205	-82.946384
R3	39.936776	-82.945703
R4	39.944347	-82.945021
R5	39.951918	-82.944339
R6	39.959489	-82.943657
R7	39.967060	-82.942974
R8	39.974631	-82.942292
R9	39.982202	-82.941609
R10	39.989773	-82.940927
R11	39.997344	-82.940244
R12	40.004915	-82.939561
R13	40.012486	-82.938877
R14	40.020056	-82.938194
R15	40.027627	-82.937511
R16	40.035198	-82.936827
R17	40.042769	-82.936143
R18	40.050340	-82.935459
R19	40.057911	-82.934775
R20	40.065482	-82.934091
R21	40.073053	-82.933406
R22	40.080624	-82.932722
R23	40.088195	-82.932037
S1	39.921109	-82.937233
S2	39.928680	-82.936550
S3	39.936251	-82.935868
S4	39.943821	-82.935185
S5	39.951392	-82.934502
S6	39.958963	-82.933818
S7	39.966534	-82.933135
S8	39.974105	-82.932451
S9	39.981676	-82.931768
S10	39.989247	-82.931084
S11	39.996818	-82.930400
S12	40.004389	-82.929716
S13	40.011960	-82.929031
S14	40.019531	-82.928347
S15	40.027101	-82.927662
S16	40.034672	-82.926978

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
S17	40.042243	-82.926293
S18	40.049814	-82.925608
S19	40.057385	-82.924923
S20	40.064956	-82.924237
S21	40.072527	-82.923552
S22	40.080098	-82.922866
S23	40.087668	-82.922180
T1	39.920583	-82.927400
T2	39.928154	-82.926716
T3	39.935724	-82.926033
T4	39.943295	-82.925349
T5	39.950866	-82.924664
T6	39.958437	-82.923980
T7	39.966008	-82.923296
T8	39.973579	-82.922611
T9	39.981150	-82.921926
T10	39.988721	-82.921241
T11	39.996291	-82.920556
T12	40.003862	-82.919871
T13	40.011433	-82.919186
T14	40.019004	-82.918500
T15	40.026575	-82.917814
T16	40.034146	-82.917129
T17	40.041716	-82.916443
T18	40.049287	-82.915756
T19	40.056858	-82.915070
T20	40.064429	-82.914384
T21	40.072000	-82.913697
T22	40.079570	-82.913010
T23	40.087141	-82.912324
U1	39.920056	-82.917567
U2	39.927627	-82.916883
U3	39.935198	-82.916198
U4	39.942768	-82.915513
U5	39.950339	-82.914827
U6	39.957910	-82.914142
U7	39.965481	-82.913456
U8	39.973052	-82.912771
U9	39.980622	-82.912085
U10	39.988193	-82.911399
U11	39.995764	-82.910713
U12	40.003335	-82.910026
U13	40.010906	-82.909340

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
U14	40.018476	-82.908653
U15	40.026047	-82.907967
U16	40.033618	-82.907280
U17	40.041189	-82.906593
U18	40.048759	-82.905905
U19	40.056330	-82.905218
U20	40.063901	-82.904531
U21	40.071472	-82.903843
U22	40.079042	-82.903155
U23	40.086613	-82.902467
V1	39.919528	-82.907735
V2	39.927099	-82.907049
V3	39.934670	-82.906363
V4	39.942241	-82.905677
V5	39.949811	-82.904991
V6	39.957382	-82.904304
V7	39.964953	-82.903617
V8	39.972524	-82.902931
V9	39.980094	-82.902244
V10	39.987665	-82.901557
V11	39.995236	-82.900869
V12	40.002806	-82.900182
V13	40.010377	-82.899494
V14	40.017948	-82.898807
V15	40.025519	-82.898119
V16	40.033089	-82.897431
V17	40.040660	-82.896743
V18	40.048231	-82.896055
V19	40.055801	-82.895366
V20	40.063372	-82.894677
V21	40.070943	-82.893989
V22	40.078514	-82.893300
V23	40.086084	-82.892611
W1	39.919000	-82.897903
W2	39.926571	-82.897216
W3	39.934141	-82.896528
W4	39.941712	-82.895841
W5	39.949283	-82.895154
W6	39.956853	-82.894466
W7	39.964424	-82.893779
W8	39.971995	-82.893091
W9	39.979565	-82.892403
W10	39.987136	-82.891715

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
W11	39.994707	-82.891026
W12	40.002277	-82.890338
W13	40.009848	-82.889649
W14	40.017419	-82.888960
W15	40.024989	-82.888271
W16	40.032560	-82.887582
W17	40.040131	-82.886893
W18	40.047701	-82.886204
W19	40.055272	-82.885514
W20	40.062843	-82.884825
W21	40.070413	-82.884135
W22	40.077984	-82.883445
W23	40.085554	-82.882755
X1	39.918471	-82.888070
X2	39.926041	-82.887382
X3	39.933612	-82.886694
X4	39.941182	-82.886006
X5	39.948753	-82.885317
X6	39.956324	-82.884629
X7	39.963894	-82.883940
X8	39.971465	-82.883251
X9	39.979036	-82.882562
X10	39.986606	-82.881873
X11	39.994177	-82.881183
X12	40.001747	-82.880494
X13	40.009318	-82.879804
X14	40.016889	-82.879114
X15	40.024459	-82.878424
X16	40.032030	-82.877734
X17	40.039600	-82.877044
X18	40.047171	-82.876353
X19	40.054742	-82.875663
X20	40.062312	-82.874972
X21	40.069883	-82.874281
X22	40.077453	-82.873590
X23	40.085024	-82.872899
Y1	39.917940	-82.878238
Y2	39.925511	-82.877549
Y3	39.933082	-82.876860
Y4	39.940652	-82.876170
Y5	39.948223	-82.875481
Y6	39.955793	-82.874791
Y7	39.963364	-82.874101

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
Y8	39.970934	-82.873411
Y9	39.978505	-82.872721
Y10	39.986076	-82.872031
Y11	39.993646	-82.871340
Y12	40.001217	-82.870650
Y13	40.008787	-82.869959
Y14	40.016358	-82.869268
Y15	40.023928	-82.868577
Y16	40.031499	-82.867886
Y17	40.039069	-82.867194
Y18	40.046640	-82.866503
Y19	40.054210	-82.865811
Y20	40.061781	-82.865119
Y21	40.069351	-82.864427
Y22	40.076922	-82.863735
Y23	40.084492	-82.863043
Z1	39.917409	-82.868406
Z2	39.924980	-82.867716
Z3	39.932550	-82.867026
Z4	39.940121	-82.866335
Z5	39.947692	-82.865645
Z6	39.955262	-82.864954
Z7	39.962833	-82.864263
Z8	39.970403	-82.863572
Z9	39.977974	-82.862881
Z10	39.985544	-82.862189
Z11	39.993115	-82.861498
Z12	40.000685	-82.860806
Z13	40.008256	-82.860114
Z14	40.015826	-82.859422
Z15	40.023396	-82.858730
Z16	40.030967	-82.858037
Z17	40.038537	-82.857345
Z18	40.046108	-82.856652
Z19	40.053678	-82.855960
Z20	40.061249	-82.855267
Z21	40.068819	-82.854574
Z22	40.076390	-82.853880
Z23	40.083960	-82.853187
AA1	39.916878	-82.858575
AA2	39.924448	-82.857883
AA3	39.932019	-82.857192
AA4	39.939589	-82.856500

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AA5	39.947159	-82.855809
AA6	39.954730	-82.855117
AA7	39.962300	-82.854425
AA8	39.969871	-82.853732
AA9	39.977441	-82.853040
AA10	39.985012	-82.852348
AA11	39.992582	-82.851655
AA12	40.000153	-82.850962
AA13	40.007723	-82.850269
AA14	40.015293	-82.849576
AA15	40.022864	-82.848883
AA16	40.030434	-82.848189
AA17	40.038005	-82.847496
AA18	40.045575	-82.846802
AA19	40.053146	-82.846108
AA20	40.060716	-82.845414
AA21	40.068286	-82.844720
AA22	40.075857	-82.844026
AA23	40.083427	-82.843331
AB1	39.916345	-82.848743
AB2	39.923915	-82.848051
AB3	39.931486	-82.847358
AB4	39.939056	-82.846665
AB5	39.946627	-82.845973
AB6	39.954197	-82.845280
AB7	39.961767	-82.844587
AB8	39.969338	-82.843893
AB9	39.976908	-82.843200
AB10	39.984479	-82.842506
AB11	39.992049	-82.841813
AB12	39.999619	-82.841119
AB13	40.007190	-82.840425
AB14	40.014760	-82.839730
AB15	40.022330	-82.839036
AB16	40.029901	-82.838342
AB17	40.037471	-82.837647
AB18	40.045041	-82.836952
AB19	40.052612	-82.836257
AB20	40.060182	-82.835562
AB21	40.067753	-82.834867
AB22	40.075323	-82.834171
AB23	40.082893	-82.833476
AC1	39.915811	-82.838911

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AC2	39.923382	-82.838218
AC3	39.930952	-82.837524
AC4	39.938523	-82.836831
AC5	39.946093	-82.836137
AC6	39.953663	-82.835443
AC7	39.961234	-82.834749
AC8	39.968804	-82.834054
AC9	39.976374	-82.833360
AC10	39.983945	-82.832665
AC11	39.991515	-82.831970
AC12	39.999085	-82.831275
AC13	40.006656	-82.830580
AC14	40.014226	-82.829885
AC15	40.021796	-82.829190
AC16	40.029366	-82.828494
AC17	40.036937	-82.827798
AC18	40.044507	-82.827102
AC19	40.052077	-82.826406
AC20	40.059648	-82.825710
AC21	40.067218	-82.825014
AC22	40.074788	-82.824317
AC23	40.082358	-82.823621
AD1	39.915277	-82.829080
AD2	39.922847	-82.828386
AD3	39.930418	-82.827691
AD4	39.937988	-82.826996
AD5	39.945558	-82.826301
AD6	39.953129	-82.825606
AD7	39.960699	-82.824911
AD8	39.968269	-82.824215
AD9	39.975839	-82.823520
AD10	39.983410	-82.822824
AD11	39.990980	-82.822128
AD12	39.998550	-82.821432
AD13	40.006120	-82.820736
AD14	40.013691	-82.820040
AD15	40.021261	-82.819343
AD16	40.028831	-82.818646
AD17	40.036401	-82.817950
AD18	40.043972	-82.817253
AD19	40.051542	-82.816556
AD20	40.059112	-82.815858
AD21	40.066682	-82.815161

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AD22	40.074253	-82.814463
AD23	40.081823	-82.813766
AE1	39.914742	-82.819249
AE2	39.922312	-82.818553
AE3	39.929882	-82.817858
AE4	39.937453	-82.817162
AE5	39.945023	-82.816466
AE6	39.952593	-82.815770
AE7	39.960163	-82.815073
AE8	39.967734	-82.814377
AE9	39.975304	-82.813680
AE10	39.982874	-82.812983
AE11	39.990444	-82.812286
AE12	39.998014	-82.811589
AE13	40.005585	-82.810892
AE14	40.013155	-82.810194
AE15	40.020725	-82.809497
AE16	40.028295	-82.808799
AE17	40.035865	-82.808101
AE18	40.043436	-82.807403
AE19	40.051006	-82.806705
AE20	40.058576	-82.806007
AE21	40.066146	-82.805308
AE22	40.073716	-82.804609
AE23	40.081286	-82.803911
AF1	39.914206	-82.809418
AF2	39.921776	-82.808721
AF3	39.929346	-82.808024
AF4	39.936917	-82.807328
AF5	39.944487	-82.806630
AF6	39.952057	-82.805933
AF7	39.959627	-82.805236
AF8	39.967197	-82.804538
AF9	39.974767	-82.803840
AF10	39.982338	-82.803142
AF11	39.989908	-82.802444
AF12	39.997478	-82.801746
AF13	40.005048	-82.801048
AF14	40.012618	-82.800349
AF15	40.020188	-82.799651
AF16	40.027758	-82.798952
AF17	40.035328	-82.798253
AF18	40.042899	-82.797554

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AF19	40.050469	-82.796854
AF20	40.058039	-82.796155
AF21	40.065609	-82.795455
AF22	40.073179	-82.794756
AF23	40.080749	-82.794056
AG1	39.913669	-82.799587
AG2	39.921239	-82.798889
AG3	39.928809	-82.798191
AG4	39.936380	-82.797493
AG5	39.943950	-82.796795
AG6	39.951520	-82.796097
AG7	39.959090	-82.795398
AG8	39.966660	-82.794700
AG9	39.974230	-82.794001
AG10	39.981800	-82.793302
AG11	39.989370	-82.792603
AG12	39.996940	-82.791903
AG13	40.004510	-82.791204
AG14	40.012080	-82.790504
AG15	40.019651	-82.789805
AG16	40.027221	-82.789105
AG17	40.034791	-82.788405
AG18	40.042361	-82.787705
AG19	40.049931	-82.787004
AG20	40.057501	-82.786304
AG21	40.065071	-82.785603
AG22	40.072641	-82.784902
AG23	40.080211	-82.784201
AH1	39.913132	-82.789756
AH2	39.920702	-82.789058
AH3	39.928272	-82.788359
AH4	39.935842	-82.787659
AH5	39.943412	-82.786960
AH6	39.950982	-82.786261
AH7	39.958552	-82.785561
AH8	39.966122	-82.784861
AH9	39.973692	-82.784162
AH10	39.981262	-82.783461
AH11	39.988832	-82.782761
AH12	39.996402	-82.782061
AH13	40.003972	-82.781360
AH14	40.011542	-82.780660
AH15	40.019112	-82.779959

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AH16	40.026682	-82.779258
AH17	40.034252	-82.778557
AH18	40.041822	-82.777855
AH19	40.049392	-82.777154
AH20	40.056962	-82.776452
AH21	40.064532	-82.775751
AH22	40.072102	-82.775049
AH23	40.079672	-82.774347
AI1	39.912593	-82.779926
AI2	39.920163	-82.779226
AI3	39.927733	-82.778526
AI4	39.935303	-82.777826
AI5	39.942873	-82.777125
AI6	39.950443	-82.776425
AI7	39.958013	-82.775724
AI8	39.965583	-82.775023
AI9	39.973153	-82.774322
AI10	39.980723	-82.773621
AI11	39.988293	-82.772920
AI12	39.995863	-82.772218
AI13	40.003433	-82.771517
AI14	40.011003	-82.770815
AI15	40.018573	-82.770113
AI16	40.026143	-82.769411
AI17	40.033713	-82.768709
AI18	40.041283	-82.768007
AI19	40.048853	-82.767304
AI20	40.056422	-82.766601
AI21	40.063992	-82.765898
AI22	40.071562	-82.765196
AI23	40.079132	-82.764492
AJ1	39.912054	-82.770095
AJ2	39.919624	-82.769394
AJ3	39.927194	-82.768693
AJ4	39.934764	-82.767992
AJ5	39.942333	-82.767291
AJ6	39.949903	-82.766589
AJ7	39.957473	-82.765887
AJ8	39.965043	-82.765185
AJ9	39.972613	-82.764483
AJ10	39.980183	-82.763781
AJ11	39.987753	-82.763079
AJ12	39.995323	-82.762376

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AJ13	40.002893	-82.761674
AJ14	40.010463	-82.760971
AJ15	40.018033	-82.760268
AJ16	40.025603	-82.759565
AJ17	40.033172	-82.758861
AJ18	40.040742	-82.758158
AJ19	40.048312	-82.757454
AJ20	40.055882	-82.756750
AJ21	40.063452	-82.756046
AJ22	40.071022	-82.755342
AJ23	40.078592	-82.754638
AK1	39.911514	-82.760265
AK2	39.919083	-82.759563
AK3	39.926653	-82.758861
AK4	39.934223	-82.758159
AK5	39.941793	-82.757456
AK6	39.949363	-82.756753
AK7	39.956933	-82.756051
AK8	39.964503	-82.755348
AK9	39.972073	-82.754644
AK10	39.979642	-82.753941
AK11	39.987212	-82.753238
AK12	39.994782	-82.752534
AK13	40.002352	-82.751830
AK14	40.009922	-82.751126
AK15	40.017492	-82.750422
AK16	40.025061	-82.749718
AK17	40.032631	-82.749014
AK18	40.040201	-82.748309
AK19	40.047771	-82.747605
AK20	40.055341	-82.746900
AK21	40.062911	-82.746195
AK22	40.070480	-82.745489
AK23	40.078050	-82.744784
AL1	39.910973	-82.750435
AL2	39.918542	-82.749732
AL3	39.926112	-82.749029
AL4	39.933682	-82.748325
AL5	39.941252	-82.747622
AL6	39.948822	-82.746918
AL7	39.956391	-82.746214
AL8	39.963961	-82.745510
AL9	39.971531	-82.744806

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AL10	39.979101	-82.744101
AL11	39.986671	-82.743397
AL12	39.994240	-82.742692
AL13	40.001810	-82.741987
AL14	40.009380	-82.741282
AL15	40.016950	-82.740577
AL16	40.024520	-82.739872
AL17	40.032089	-82.739166
AL18	40.039659	-82.738461
AL19	40.047229	-82.737755
AL20	40.054799	-82.737049
AL21	40.062368	-82.736343
AL22	40.069938	-82.735637
AL23	40.077508	-82.734930
AM1	39.910431	-82.740605
AM2	39.918000	-82.739901
AM3	39.925570	-82.739197
AM4	39.933140	-82.738492
AM5	39.940710	-82.737787
AM6	39.948280	-82.737083
AM7	39.955849	-82.736378
AM8	39.963419	-82.735672
AM9	39.970989	-82.734967
AM10	39.978559	-82.734262
AM11	39.986128	-82.733556
AM12	39.993698	-82.732850
AM13	40.001268	-82.732144
AM14	40.008837	-82.731438
AM15	40.016407	-82.730732
AM16	40.023977	-82.730026
AM17	40.031547	-82.729319
AM18	40.039116	-82.728612
AM19	40.046686	-82.727906
AM20	40.054256	-82.727199
AM21	40.061825	-82.726491
AM22	40.069395	-82.725784
AM23	40.076965	-82.725077
AN1	39.909888	-82.730775
AN2	39.917458	-82.730070
AN3	39.925027	-82.729365
AN4	39.932597	-82.728659
AN5	39.940167	-82.727953
AN6	39.947737	-82.727247

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AN7	39.955306	-82.726541
AN8	39.962876	-82.725835
AN9	39.970446	-82.725129
AN10	39.978015	-82.724422
AN11	39.985585	-82.723716
AN12	39.993155	-82.723009
AN13	40.000724	-82.722302
AN14	40.008294	-82.721595
AN15	40.015864	-82.720887
AN16	40.023433	-82.720180
AN17	40.031003	-82.719472
AN18	40.038573	-82.718764
AN19	40.046142	-82.718056
AN20	40.053712	-82.717348
AN21	40.061282	-82.716640
AN22	40.068851	-82.715932
AN23	40.076421	-82.715223
AO1	39.909345	-82.720946
AO2	39.916914	-82.720240
AO3	39.924484	-82.719533
AO4	39.932053	-82.718826
AO5	39.939623	-82.718120
AO6	39.947193	-82.717413
AO7	39.954762	-82.716705
AO8	39.962332	-82.715998
AO9	39.969902	-82.715291
AO10	39.977471	-82.714583
AO11	39.985041	-82.713875
AO12	39.992611	-82.713167
AO13	40.000180	-82.712459
AO14	40.007750	-82.711751
AO15	40.015319	-82.711043
AO16	40.022889	-82.710334
AO17	40.030459	-82.709625
AO18	40.038028	-82.708916
AO19	40.045598	-82.708207
AO20	40.053167	-82.707498
AO21	40.060737	-82.706789
AO22	40.068306	-82.706079
AO23	40.075876	-82.705370
AP1	39.908800	-82.711116
AP2	39.916370	-82.710409
AP3	39.923939	-82.709701

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AP4	39.931509	-82.708994
AP5	39.939079	-82.708286
AP6	39.946648	-82.707578
AP7	39.954218	-82.706869
AP8	39.961787	-82.706161
AP9	39.969357	-82.705453
AP10	39.976926	-82.704744
AP11	39.984496	-82.704035
AP12	39.992066	-82.703326
AP13	39.999635	-82.702617
AP14	40.007205	-82.701907
AP15	40.014774	-82.701198
AP16	40.022344	-82.700488
AP17	40.029913	-82.699779
AP18	40.037483	-82.699069
AP19	40.045052	-82.698359
AP20	40.052622	-82.697648
AP21	40.060191	-82.696938
AP22	40.067761	-82.696227
AP23	40.075330	-82.695516
AQ1	39.908255	-82.701287
AQ2	39.915825	-82.700579
AQ3	39.923394	-82.699870
AQ4	39.930964	-82.699161
AQ5	39.938533	-82.698452
AQ6	39.946103	-82.697743
AQ7	39.953672	-82.697034
AQ8	39.961242	-82.696324
AQ9	39.968811	-82.695615
AQ10	39.976381	-82.694905
AQ11	39.983950	-82.694195
AQ12	39.991520	-82.693485
AQ13	39.999089	-82.692775
AQ14	40.006659	-82.692064
AQ15	40.014228	-82.691354
AQ16	40.021798	-82.690643
AQ17	40.029367	-82.689932
AQ18	40.036937	-82.689221
AQ19	40.044506	-82.688510
AQ20	40.052076	-82.687798
AQ21	40.059645	-82.687087
AQ22	40.067214	-82.686375
AQ23	40.074784	-82.685663

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AR1	39.907709	-82.691458
AR2	39.915278	-82.690748
AR3	39.922848	-82.690039
AR4	39.930417	-82.689329
AR5	39.937987	-82.688619
AR6	39.945556	-82.687908
AR7	39.953126	-82.687198
AR8	39.960695	-82.686488
AR9	39.968265	-82.685777
AR10	39.975834	-82.685066
AR11	39.983404	-82.684355
AR12	39.990973	-82.683644
AR13	39.998542	-82.682932
AR14	40.006112	-82.682221
AR15	40.013681	-82.681509
AR16	40.021251	-82.680798
AR17	40.028820	-82.680086
AR18	40.036390	-82.679373
AR19	40.043959	-82.678661
AR20	40.051528	-82.677949
AR21	40.059098	-82.677236
AR22	40.066667	-82.676523
AR23	40.074237	-82.675811
AS1	39.907162	-82.681629
AS2	39.914732	-82.680918
AS3	39.922301	-82.680208
AS4	39.929870	-82.679497
AS5	39.937440	-82.678785
AS6	39.945009	-82.678074
AS7	39.952579	-82.677363
AS8	39.960148	-82.676651
AS9	39.967717	-82.675939
AS10	39.975287	-82.675227
AS11	39.982856	-82.674515
AS12	39.990426	-82.673803
AS13	39.997995	-82.673091
AS14	40.005564	-82.672378
AS15	40.013134	-82.671665
AS16	40.020703	-82.670952
AS17	40.028272	-82.670239
AS18	40.035842	-82.669526
AS19	40.043411	-82.668813
AS20	40.050980	-82.668099

Table I-2, *Continued*
REGULARLY SPACED GRID POINTS KEY
Port Columbus International Airport

GRID ID	LATITUDE	LONGITUDE
AS21	40.058550	-82.667386
AS22	40.066119	-82.666672
AS23	40.073688	-82.665958

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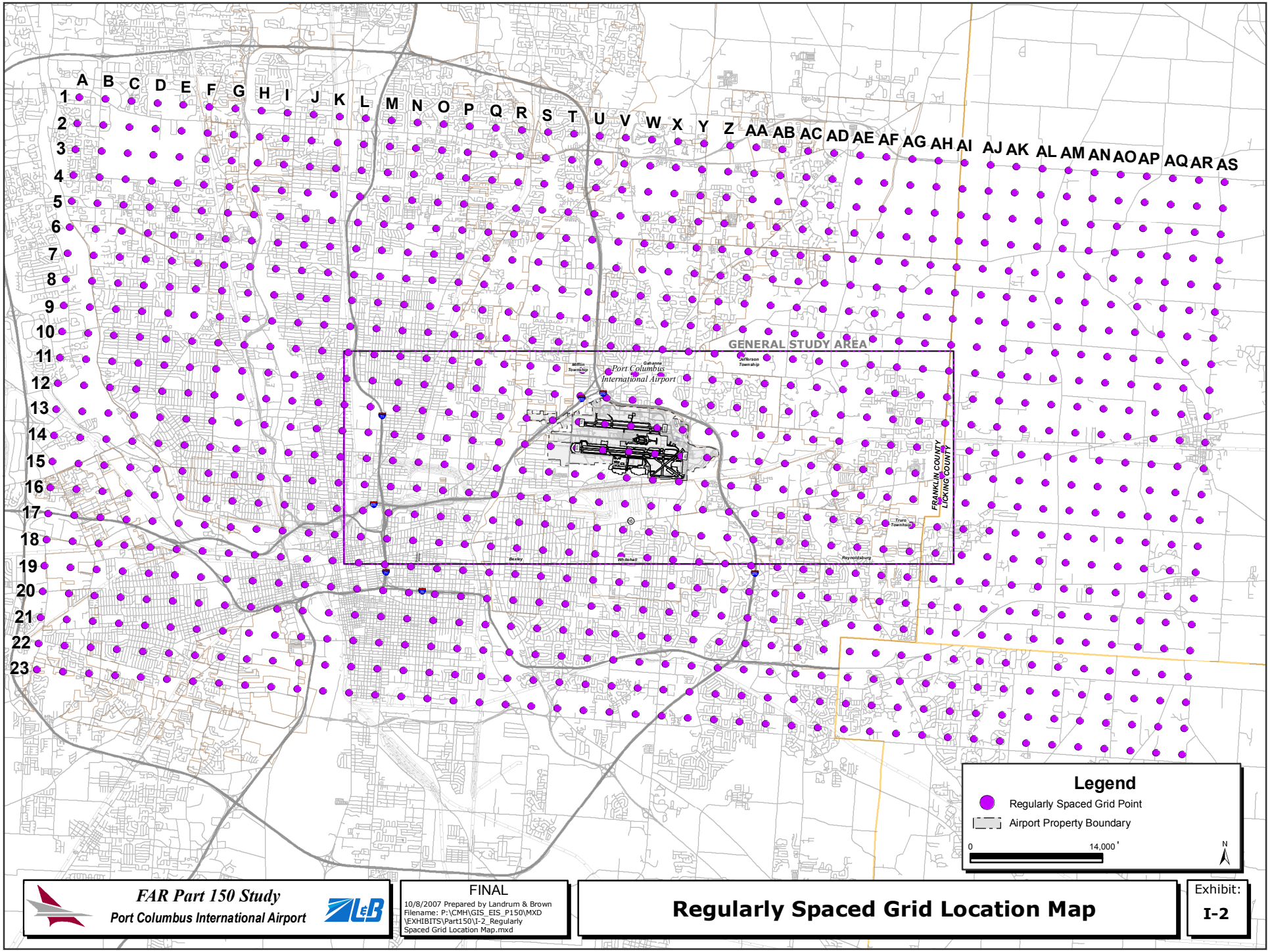
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
GENERAL STUDY AREA
Port Columbus International Airport
Mifflin Township
Jefferson Township
Gahanna
Bexley
Whitehall
Reynoldsburg
Truro Township
FRANKLIN COUNTY
LICKING COUNTY
Legend
Regularly Spaced Grid Point
Airport Property Boundary
0
14,000 '
N
FAR Part 150 Study
Port Columbus International Airport
FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\I-2_Regularly
Spaced Grid Location Map.mxd
Regularly Spaced Grid Location Map
Exhibit:
I-2

Table I-3
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C1	48.5	49.9	1.4	47.6	48.9	1.3	97.0	98.3	1.3	86.1	86.2	0.1	2.9	4.1	1.2
C2	56.1	57.8	1.7	53.4	54.5	1.1	102.7	103.9	1.2	84.8	84.8	0.0	16.2	20.4	4.2
C3	47.3	49.3	2.0	46.2	48.1	1.9	95.6	97.5	1.9	86.3	86.3	0.0	1.9	2.8	0.9
C4	46.4	48.1	1.7	45.4	47.0	1.6	94.7	96.4	1.7	86.3	86.3	0.0	2.2	3.1	0.9
C5	55.5	57.4	1.9	53.1	54.3	1.2	102.5	103.7	1.2	85.3	85.3	0.0	13.2	16.4	3.2
C6	48.6	50.0	1.4	47.7	49.0	1.3	97.0	98.4	1.4	86.8	87.2	0.4	2.9	4.0	1.1
C7	50.8	53.1	2.3	48.8	49.6	0.8	98.2	99.0	0.8	87.4	87.6	0.2	4.5	5.6	1.1
C8	51.8	53.6	1.8	50.2	51.7	1.5	99.6	101.1	1.5	86.3	86.3	0.0	5.9	8.6	2.7
C9	51.3	53.0	1.7	49.6	51.3	1.7	99.0	100.6	1.6	84.0	84.0	0.0	4.8	7.2	2.4
C10	54.7	56.7	2.0	51.7	53.2	1.5	101.1	102.5	1.4	86.9	86.9	0.0	11.1	15.4	4.3
C11	48.5	50.3	1.8	47.1	48.9	1.8	96.5	98.3	1.8	84.7	84.7	0.0	3.3	4.9	1.6
C12	47.7	49.5	1.8	46.5	48.2	1.7	95.8	97.6	1.8	86.7	86.7	0.0	3.0	4.2	1.2
C14	59.0	60.6	1.6	56.0	57.2	1.2	105.3	106.6	1.3	85.8	85.8	0.0	22.5	29.0	6.5
C15	47.6	49.0	1.4	46.6	47.9	1.3	95.9	97.3	1.4	84.6	84.8	0.2	2.5	3.4	0.9
C16	49.8	51.1	1.3	48.5	49.7	1.2	97.9	99.0	1.1	87.9	87.9	0.0	3.5	5.0	1.5
C17	51.5	53.3	1.8	49.9	51.6	1.7	99.2	100.9	1.7	84.1	84.1	0.0	5.3	7.8	2.5
C18	57.3	59.5	2.2	54.5	56.2	1.7	103.9	105.6	1.7	84.8	84.9	0.1	18.2	25.5	7.3
C19	51.6	53.3	1.7	49.2	50.3	1.1	98.6	99.7	1.1	84.0	84.0	0.0	6.0	7.4	1.4
C20	58.5	60.4	1.9	55.9	57.0	1.1	105.2	106.4	1.2	86.4	86.4	0.0	24.5	31.3	6.8
C21	57.3	59.4	2.1	55.1	56.2	1.1	104.4	105.5	1.1	87.0	87.0	0.0	19.3	24.1	4.8
C22	47.4	50.3	2.9	45.5	47.9	2.4	94.9	97.2	2.3	82.5	84.3	1.8	1.8	2.7	0.9
C23	44.7	47.2	2.5	43.2	44.9	1.7	92.6	94.3	1.7	84.7	84.7	0.0	0.6	1.8	1.2
C24	57.4	59.9	2.5	55.2	56.9	1.7	104.6	106.2	1.6	91.8	91.8	0.0	24.5	31.6	7.1
C25	46.3	48.1	1.8	45.3	47.1	1.8	94.7	96.5	1.8	85.7	85.7	0.0	1.8	2.6	0.8
C26	53.0	56.0	3.0	51.3	53.9	2.6	100.7	103.2	2.5	86.7	87.2	0.5	9.4	16.0	6.6
C27	51.6	53.3	1.7	49.9	51.6	1.7	99.3	101.0	1.7	83.7	83.9	0.2	5.3	7.9	2.6
C28	54.0	56.5	2.5	52.0	53.3	1.3	101.3	102.6	1.3	86.7	86.7	0.0	10.1	12.8	2.7
C29	58.7	60.5	1.8	56.1	57.2	1.1	105.4	106.5	1.1	86.3	86.3	0.0	25.0	32.0	7.0
C30	53.4	55.5	2.1	51.7	53.5	1.8	101.0	102.9	1.9	84.7	84.9	0.2	8.9	13.6	4.7
C31	57.5	60.2	2.7	55.2	57.3	2.1	104.6	106.7	2.1	86.4	86.5	0.1	19.5	30.4	10.9
C32	53.3	55.9	2.6	51.3	52.6	1.3	100.7	102.0	1.3	86.5	86.5	0.0	8.8	11.3	2.5
C33	49.2	50.6	1.4	48.1	49.4	1.3	97.5	98.8	1.3	86.4	86.5	0.1	3.3	4.6	1.3

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C34	53.1	56.1	3.0	51.5	54.0	2.5	100.8	103.4	2.6	86.2	87.5	1.3	9.7	16.3	6.6
C35	47.6	49.2	1.6	46.5	48.0	1.5	95.9	97.4	1.5	87.1	87.1	0.0	2.8	3.8	1.0
C36	48.1	49.6	1.5	47.0	48.4	1.4	96.4	97.8	1.4	87.2	87.2	0.0	2.9	4.0	1.1
C37	58.9	59.6	0.7	56.0	56.6	0.6	105.4	106.0	0.6	86.0	86.0	0.0	24.0	27.8	3.8
C38	51.8	53.8	2.0	49.6	50.7	1.1	99.0	100.1	1.1	83.7	85.0	1.3	5.8	7.1	1.3
C39	53.5	57.3	3.8	52.1	55.1	3.0	101.4	104.4	3.0	90.7	92.8	2.1	10.3	19.0	8.7
C40	47.5	50.2	2.7	45.4	47.6	2.2	94.8	97.0	2.2	82.8	81.9	-0.9	1.7	2.7	1.0
C41	41.8	43.4	1.6	40.0	41.5	1.5	89.4	90.9	1.5	80.5	81.2	0.7	0.5	0.7	0.2
C42	47.4	49.4	2.0	46.2	48.2	2.0	95.6	97.6	2.0	87.0	87.0	0.0	1.9	2.9	1.0
C43	47.2	49.1	1.9	46.2	48.0	1.8	95.5	97.4	1.9	85.3	85.3	0.0	2.1	3.0	0.9
C44	58.6	59.5	0.9	55.9	56.6	0.7	105.3	105.9	0.6	86.0	86.0	0.0	23.6	27.8	4.2
C45	47.8	49.3	1.5	46.9	48.2	1.3	96.2	97.6	1.4	84.8	84.8	0.0	2.7	3.7	1.0
C46	53.9	58.1	4.2	52.4	55.7	3.3	101.8	105.1	3.3	85.4	87.9	2.5	11.3	22.3	11.0
C47	48.6	50.0	1.4	47.7	49.0	1.3	97.0	98.4	1.4	86.0	86.2	0.2	3.0	4.1	1.1
C48	43.9	45.8	1.9	42.4	43.7	1.3	91.8	93.1	1.3	84.6	83.1	-1.5	0.8	1.0	0.2
C49	48.9	50.7	1.8	47.4	49.1	1.7	96.8	98.5	1.7	86.8	86.8	0.0	3.4	5.0	1.6
C50	48.0	49.4	1.4	47.0	48.4	1.4	96.4	97.7	1.3	85.6	86.2	0.6	2.6	3.6	1.0
C51	52.8	54.8	2.0	51.1	52.9	1.8	100.5	102.2	1.7	84.4	84.5	0.1	7.7	11.7	4.0
C52	49.8	51.1	1.3	48.5	49.6	1.1	97.9	99.0	1.1	86.1	86.1	0.0	3.5	4.6	1.1
C53	54.9	57.1	2.2	52.8	53.9	1.1	102.2	103.2	1.0	85.8	85.8	0.0	11.7	14.4	2.7
C54	48.9	50.5	1.6	47.5	49.0	1.5	96.8	98.4	1.6	87.9	87.9	0.0	3.3	4.6	1.3
C55	44.0	45.6	1.6	42.9	44.4	1.5	92.3	93.7	1.4	84.0	84.4	0.4	1.0	1.5	0.5
C56	52.3	54.2	1.9	50.7	52.4	1.7	100.0	101.8	1.8	84.2	84.4	0.2	6.7	10.2	3.5
C57	51.1	52.6	1.5	49.6	51.1	1.5	98.9	100.4	1.5	87.4	87.4	0.0	4.6	6.6	2.0
C58	42.3	43.4	1.1	41.0	41.9	0.9	90.3	91.3	1.0	81.6	80.9	-0.7	0.8	1.0	0.2
C59	42.6	43.8	1.2	41.2	42.1	0.9	90.5	91.5	1.0	80.9	80.2	-0.7	0.9	1.1	0.2
C60	47.3	48.9	1.6	46.2	47.7	1.5	95.5	97.1	1.6	87.4	87.4	0.0	2.7	3.8	1.1
C61	46.3	48.0	1.7	45.3	46.9	1.6	94.6	96.3	1.7	85.9	85.9	0.0	2.1	3.0	0.9
C62	51.9	54.1	2.2	50.2	52.2	2.0	99.5	101.5	2.0	86.4	86.5	0.1	6.5	10.4	3.9
C63	48.4	50.3	1.9	47.0	48.8	1.8	96.4	98.2	1.8	85.8	85.8	0.0	3.3	4.8	1.5
C64	47.0	48.7	1.7	45.9	47.5	1.6	95.2	96.9	1.7	87.2	87.2	0.0	2.5	3.6	1.1

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C65	47.1	48.7	1.6	46.1	47.6	1.5	95.4	96.9	1.5	86.9	86.9	0.0	2.6	3.6	1.0
C66	57.8	59.8	2.0	55.4	56.5	1.1	104.8	105.9	1.1	86.6	86.6	0.0	22.5	28.3	5.8
C67	60.8	62.6	1.8	58.5	59.4	0.9	107.9	108.7	0.8	88.5	88.5	0.0	35.5	44.3	8.8
C68	54.5	56.7	2.2	52.4	53.5	1.1	101.8	102.8	1.0	85.5	85.5	0.0	10.9	13.4	2.5
C69	58.7	60.8	2.1	56.5	57.6	1.1	105.8	106.9	1.1	88.3	88.3	0.0	25.9	32.4	6.5
C70	45.9	47.8	1.9	43.6	44.7	1.1	93.0	94.1	1.1	78.5	79.9	1.4	0.7	1.1	0.4
C71	46.5	48.2	1.7	45.5	47.1	1.6	94.8	96.5	1.7	86.5	86.5	0.0	2.2	3.2	1.0
C72	58.6	59.6	1.0	56.0	56.7	0.7	105.4	106.1	0.7	86.1	86.1	0.0	23.7	28.1	4.4
C73	53.2	56.4	3.2	51.3	53.2	1.9	100.7	102.6	1.9	87.0	87.0	0.0	9.0	11.9	2.9
C74	51.3	54.3	3.0	49.3	51.1	1.8	98.7	100.5	1.8	86.2	86.2	0.0	5.7	7.6	1.9
C76	59.1	59.6	0.5	56.2	56.6	0.4	105.5	106.0	0.5	85.9	85.9	0.0	23.7	27.4	3.7
C77	51.2	52.8	1.6	49.5	51.1	1.6	98.9	100.4	1.5	84.7	84.7	0.0	4.6	6.9	2.3
C78	56.3	58.8	2.5	54.2	56.3	2.1	103.6	105.7	2.1	86.6	86.6	0.0	14.8	25.0	10.2
C79	60.9	61.3	0.4	57.9	58.3	0.4	107.3	107.7	0.4	86.8	86.9	0.1	28.4	34.8	6.4
C80	48.9	50.8	1.9	47.5	49.4	1.9	96.9	98.7	1.8	84.8	85.2	0.4	3.5	5.4	1.9
C81	56.7	59.1	2.4	54.1	55.9	1.8	103.5	105.2	1.7	84.8	84.8	0.0	16.6	24.5	7.9
C82	48.1	50.0	1.9	46.8	48.6	1.8	96.2	98.0	1.8	85.2	85.2	0.0	3.1	4.5	1.4
C83	48.1	49.8	1.7	46.8	48.4	1.6	96.2	97.8	1.6	87.7	87.7	0.0	3.1	4.3	1.2
C84	51.2	53.8	2.6	49.6	51.9	2.3	98.9	101.3	2.4	85.5	85.9	0.4	6.0	10.1	4.1
C85	51.1	52.7	1.6	49.6	50.9	1.3	99.0	100.3	1.3	87.3	87.5	0.2	4.8	6.7	1.9
C86	61.7	62.7	1.0	59.4	59.9	0.5	108.8	109.2	0.4	89.5	89.5	0.0	37.4	43.2	5.8
C87	51.0	52.7	1.7	49.6	51.1	1.5	99.0	100.4	1.4	88.0	88.0	0.0	4.7	6.8	2.1
C88	56.1	58.6	2.5	54.2	55.5	1.3	103.5	104.9	1.4	87.2	87.2	0.0	15.2	19.2	4.0
C89	51.0	52.6	1.6	49.5	51.0	1.5	98.9	100.4	1.5	88.2	88.2	0.0	4.6	6.7	2.1
C90	58.6	59.2	0.6	55.5	56.1	0.6	104.8	105.4	0.6	85.4	85.4	0.0	21.1	25.5	4.4
C91	53.6	56.5	2.9	51.6	53.5	1.9	101.0	102.9	1.9	90.5	90.5	0.0	9.1	12.4	3.3
C92	48.1	49.8	1.7	46.7	48.5	1.8	96.1	97.8	1.7	86.8	86.8	0.0	3.2	4.5	1.3
C93	47.0	48.5	1.5	46.0	47.3	1.3	95.4	96.7	1.3	85.2	85.2	0.0	2.4	3.4	1.0
C94	48.2	49.9	1.7	46.9	48.5	1.6	96.2	97.8	1.6	87.5	87.5	0.0	3.2	4.4	1.2
C95	55.7	57.7	2.0	53.4	54.5	1.1	102.8	103.9	1.1	85.4	85.4	0.0	13.9	17.3	3.4
C96	46.2	47.9	1.7	45.2	46.9	1.7	94.5	96.3	1.8	85.4	85.4	0.0	1.6	2.3	0.7

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C97	56.9	59.0	2.1	54.7	55.8	1.1	104.1	105.2	1.1	86.8	86.8	0.0	17.7	22.0	4.3
C98	53.1	55.9	2.8	51.4	53.8	2.4	100.8	103.2	2.4	86.4	87.7	1.3	9.2	15.3	6.1
C99	46.6	48.4	1.8	45.6	47.4	1.8	95.0	96.8	1.8	86.1	86.1	0.0	1.9	2.8	0.9
C100	48.1	51.4	3.3	46.5	49.0	2.5	95.9	98.3	2.4	84.5	84.5	0.0	3.1	5.4	2.3
C101	51.2	53.0	1.8	49.8	51.3	1.5	99.2	100.7	1.5	87.4	87.4	0.0	5.1	7.4	2.3
C102	58.1	60.9	2.8	56.2	58.1	1.9	105.6	107.5	1.9	90.4	90.4	0.0	23.8	29.4	5.6
C103	48.4	49.8	1.4	47.4	48.8	1.4	96.8	98.1	1.3	85.1	85.1	0.0	2.9	4.0	1.1
C104	52.4	55.0	2.6	50.4	51.7	1.3	99.8	101.1	1.3	86.1	86.1	0.0	7.2	9.2	2.0
C105	52.3	55.1	2.8	50.2	51.8	1.6	99.6	101.2	1.6	85.9	85.9	0.0	7.0	9.3	2.3
C106	56.8	59.5	2.7	54.7	56.8	2.1	104.1	106.2	2.1	86.8	86.8	0.0	17.0	27.1	10.1
C107	54.1	56.3	2.2	52.1	53.1	1.0	101.4	102.5	1.1	85.3	85.3	0.0	10.2	12.4	2.2
C108	56.9	59.6	2.7	55.0	57.2	2.2	104.4	106.6	2.2	89.1	89.1	0.0	16.6	26.8	10.2
C109	61.3	63.2	1.9	58.8	59.9	1.1	108.2	109.2	1.0	89.8	89.8	0.0	36.7	45.6	8.9
C110	48.7	50.4	1.7	47.2	48.9	1.7	96.6	98.3	1.7	87.0	87.0	0.0	3.3	4.8	1.5
C111	55.1	58.1	3.0	53.2	55.1	1.9	102.6	104.5	1.9	88.2	88.2	0.0	13.1	17.2	4.1
C112	49.7	51.7	2.0	48.2	50.2	2.0	97.6	99.5	1.9	85.8	86.0	0.2	4.1	6.4	2.3
C113	59.3	62.0	2.7	56.7	58.7	2.0	106.1	108.1	2.0	86.7	87.0	0.3	25.5	35.2	9.7
C114	46.9	48.8	1.9	45.9	47.7	1.8	95.3	97.1	1.8	86.2	86.2	0.0	2.1	3.0	0.9
C115	46.4	48.2	1.8	45.4	47.2	1.8	94.7	96.5	1.8	85.8	85.8	0.0	1.9	2.7	0.8
C116	53.0	56.0	3.0	51.3	53.8	2.5	100.7	103.2	2.5	86.0	87.4	1.4	9.4	15.7	6.3
C117	46.7	48.5	1.8	45.7	47.5	1.8	95.1	96.8	1.7	86.3	86.3	0.0	2.1	2.9	0.8
C118	58.4	59.9	1.5	55.3	56.5	1.2	104.7	105.9	1.2	85.2	85.2	0.0	20.8	26.5	5.7
C119	47.9	49.8	1.9	46.6	48.5	1.9	96.0	97.9	1.9	84.9	84.9	0.0	2.8	4.1	1.3
C120	51.3	53.2	1.9	49.5	51.3	1.8	98.8	100.6	1.8	84.9	84.8	-0.1	5.4	8.2	2.8
C121	44.7	46.5	1.8	43.4	44.8	1.4	92.8	94.2	1.4	85.3	85.3	0.0	0.8	1.1	0.3
C122	46.4	48.2	1.8	45.4	47.2	1.8	94.8	96.6	1.8	85.9	85.9	0.0	1.9	2.7	0.8
C123	53.5	56.3	2.8	51.8	54.2	2.4	101.1	103.6	2.5	86.7	88.0	1.3	9.9	16.5	6.6
C124	50.1	51.5	1.4	48.6	49.9	1.3	98.0	99.3	1.3	87.8	87.8	0.0	3.7	5.2	1.5
C125	47.7	49.6	1.9	46.5	48.5	2.0	95.9	97.8	1.9	85.0	85.1	0.1	2.3	3.4	1.1
C126	48.5	50.0	1.5	47.5	48.8	1.3	96.8	98.2	1.4	86.5	86.5	0.0	3.0	4.2	1.2
C127	58.4	60.4	2.0	55.8	57.0	1.2	105.2	106.3	1.1	86.4	86.4	0.0	24.5	31.3	6.8

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C128	48.6	50.1	1.5	47.5	48.9	1.4	96.9	98.2	1.3	87.4	87.4	0.0	3.0	4.3	1.3
C129	51.2	52.7	1.5	49.5	51.0	1.5	98.8	100.4	1.6	85.2	85.2	0.0	4.5	6.8	2.3
C130	47.0	48.6	1.6	46.0	47.5	1.5	95.4	96.8	1.4	86.5	86.5	0.0	2.5	3.5	1.0
C131	47.9	49.4	1.5	47.0	48.4	1.4	96.4	97.7	1.3	84.9	84.9	0.0	2.8	3.8	1.0
C132	48.2	49.6	1.4	47.3	48.7	1.4	96.7	98.1	1.4	86.4	86.6	0.2	2.7	3.8	1.1
C133	47.2	48.9	1.7	46.0	47.7	1.7	95.4	97.1	1.7	87.2	87.2	0.0	2.6	3.7	1.1
C134	49.6	51.3	1.7	47.9	49.6	1.7	97.3	99.0	1.7	86.2	86.2	0.0	3.7	5.5	1.8
C135	57.5	60.4	2.9	55.6	57.7	2.1	105.0	107.0	2.0	90.5	90.5	0.0	20.9	26.2	5.3
C136	47.9	49.4	1.5	46.9	48.3	1.4	96.2	97.6	1.4	87.0	87.0	0.0	2.8	3.9	1.1
C137	47.4	49.0	1.6	46.3	47.8	1.5	95.7	97.2	1.5	87.3	87.3	0.0	2.7	3.8	1.1
C138	46.6	48.2	1.6	45.5	47.1	1.6	94.9	96.4	1.5	86.4	86.4	0.0	2.2	3.2	1.0
C139	51.0	53.2	2.2	49.4	51.5	2.1	98.8	100.9	2.1	86.6	86.7	0.1	5.6	8.6	3.0
C140	56.5	58.7	2.2	54.4	55.5	1.1	103.7	104.9	1.2	86.5	86.5	0.0	16.4	20.3	3.9
C141	59.2	62.3	3.1	57.2	59.4	2.2	106.5	108.8	2.3	89.4	89.4	0.0	24.6	38.7	14.1
C142	48.2	50.0	1.8	46.8	48.6	1.8	96.2	97.9	1.7	86.6	86.6	0.0	3.2	4.5	1.3
C143	54.2	56.4	2.2	52.2	53.2	1.0	101.5	102.6	1.1	85.5	85.5	0.0	10.4	12.7	2.3
C144	57.2	59.8	2.6	55.3	56.9	1.6	104.6	106.3	1.7	88.7	88.7	0.0	19.2	24.0	4.8
C145	57.7	60.6	2.9	55.8	57.9	2.1	105.2	107.3	2.1	90.8	90.8	0.0	21.9	27.4	5.5
C146	47.7	49.3	1.6	46.6	48.1	1.5	96.0	97.4	1.4	87.5	87.5	0.0	2.8	3.9	1.1
C147	46.3	48.0	1.7	45.3	46.9	1.6	94.7	96.3	1.6	85.9	85.9	0.0	2.2	3.1	0.9
C148	49.2	50.6	1.4	48.1	49.4	1.3	97.4	98.7	1.3	87.3	87.3	0.0	3.3	4.6	1.3
C149	55.0	56.7	1.7	52.4	53.6	1.2	101.8	103.0	1.2	84.7	84.7	0.0	11.7	14.2	2.5
C150	43.4	45.0	1.6	42.0	43.2	1.2	91.4	92.6	1.2	87.0	86.0	-1.0	0.9	1.1	0.2
C151	46.7	49.7	3.0	45.1	47.3	2.2	94.5	96.7	2.2	85.2	85.2	0.0	2.2	3.9	1.7
C152	52.2	54.1	1.9	50.5	52.0	1.5	99.9	101.4	1.5	84.9	84.9	0.0	6.6	9.5	2.9
C153	53.3	57.6	4.3	51.9	55.2	3.3	101.3	104.5	3.2	82.5	85.3	2.8	10.0	21.1	11.1
C154	56.8	59.2	2.4	54.8	56.1	1.3	104.2	105.5	1.3	87.3	87.3	0.0	17.4	21.8	4.4
C156	53.1	55.9	2.8	51.4	53.8	2.4	100.8	103.2	2.4	86.4	87.7	1.3	9.2	15.3	6.1
C157	52.3	55.8	3.5	50.4	52.7	2.3	99.8	102.0	2.2	87.0	87.0	0.0	6.7	9.2	2.5
C158	60.3	64.9	4.6	58.9	62.6	3.7	108.2	112.0	3.8	95.1	96.5	1.4	28.4	45.3	16.9
C159	44.7	47.2	2.5	43.2	44.9	1.7	92.6	94.3	1.7	84.7	84.7	0.0	0.6	1.8	1.2

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C160	55.7	58.0	2.3	53.3	55.1	1.8	102.7	104.5	1.8	84.9	84.9	0.0	14.0	21.0	7.0
C161	48.8	50.7	1.9	47.4	49.3	1.9	96.8	98.6	1.8	85.0	85.4	0.4	3.3	5.1	1.8
C162	52.7	54.6	1.9	51.0	52.5	1.5	100.3	101.8	1.5	83.8	84.0	0.2	7.4	10.5	3.1
C163	49.0	50.5	1.5	47.9	49.2	1.3	97.2	98.6	1.4	87.6	87.6	0.0	3.2	4.5	1.3
C165	43.2	44.7	1.5	42.0	43.1	1.1	91.3	92.5	1.2	83.2	82.6	-0.6	0.7	0.9	0.2
C166	48.1	49.7	1.6	46.9	48.4	1.5	96.2	97.7	1.5	87.9	87.9	0.0	3.0	4.3	1.3
C167	53.4	55.4	2.0	51.6	53.3	1.7	101.0	102.7	1.7	84.6	84.7	0.1	8.8	13.2	4.4
C168	60.4	62.2	1.8	58.0	58.9	0.9	107.3	108.3	1.0	87.7	87.7	0.0	32.8	41.1	8.3
C169	46.4	48.0	1.6	45.3	46.9	1.6	94.7	96.3	1.6	86.0	86.0	0.0	2.2	3.1	0.9
C170	50.8	52.3	1.5	49.4	50.7	1.3	98.7	100.1	1.4	88.2	88.2	0.0	4.2	5.8	1.6
C171	63.5	64.9	1.4	61.6	62.2	0.6	111.0	111.6	0.6	94.8	94.8	0.0	48.4	56.3	7.9
C172	48.2	49.6	1.4	47.3	48.7	1.4	96.7	98.1	1.4	86.0	86.0	0.0	2.7	3.8	1.1
C173	48.3	49.7	1.4	47.4	48.8	1.4	96.8	98.2	1.4	86.6	86.9	0.3	2.8	3.8	1.0
C174	50.8	53.0	2.2	48.8	49.6	0.8	98.1	98.9	0.8	87.5	87.7	0.2	4.5	5.6	1.1
C175	47.7	49.2	1.5	46.9	48.3	1.4	96.3	97.6	1.3	85.8	86.3	0.5	2.5	3.4	0.9
C176	46.6	48.4	1.8	45.6	47.3	1.7	95.0	96.7	1.7	86.5	86.5	0.0	2.2	3.0	0.8
C177	52.8	54.8	2.0	50.7	51.8	1.1	100.0	101.2	1.2	84.5	84.5	0.0	7.5	9.3	1.8
C178	49.9	51.3	1.4	48.5	49.8	1.3	97.9	99.1	1.2	88.0	88.0	0.0	3.5	5.1	1.6
C179	58.7	60.4	1.7	56.1	57.2	1.1	105.5	106.5	1.0	86.3	86.3	0.0	25.8	32.4	6.6
C180	58.5	61.5	3.0	56.7	58.9	2.2	106.1	108.3	2.2	92.2	92.2	0.0	24.9	31.0	6.1
C181	57.6	59.8	2.2	55.5	56.7	1.2	104.9	106.1	1.2	87.4	87.4	0.0	20.2	25.1	4.9
C182	59.1	62.2	3.1	57.1	59.4	2.3	106.4	108.8	2.4	90.3	90.3	0.0	24.2	38.0	13.8
C183	52.0	54.0	2.0	50.2	52.0	1.8	99.5	101.4	1.9	85.8	85.7	-0.1	6.4	10.0	3.6
C184	52.3	54.0	1.7	50.4	51.6	1.2	99.8	101.0	1.2	88.4	88.0	-0.4	6.4	9.0	2.6
C185	55.6	57.8	2.2	53.5	54.7	1.2	102.9	104.1	1.2	86.6	86.6	0.0	13.3	16.7	3.4
C186	46.2	49.0	2.8	44.7	46.7	2.0	94.0	96.1	2.1	85.5	85.5	0.0	1.9	3.5	1.6
C187	52.4	54.3	1.9	50.5	52.3	1.8	99.8	101.7	1.9	85.7	85.6	-0.1	6.8	10.7	3.9
C188	48.1	49.9	1.8	46.8	48.5	1.7	96.2	97.9	1.7	86.9	86.9	0.0	3.2	4.5	1.3
C189	51.5	53.1	1.6	50.0	51.2	1.2	99.3	100.5	1.2	87.6	88.0	0.4	5.2	7.3	2.1
C190	48.6	50.4	1.8	47.2	48.9	1.7	96.5	98.3	1.8	85.6	85.6	0.0	3.4	5.0	1.6
C191	52.2	54.8	2.6	50.1	51.5	1.4	99.5	100.9	1.4	86.0	86.0	0.0	6.8	8.8	2.0

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C192	51.5	53.3	1.8	50.0	51.5	1.5	99.4	100.9	1.5	87.0	87.0	0.0	5.6	8.0	2.4
C193	57.1	59.9	2.8	55.2	57.1	1.9	104.5	106.4	1.9	89.4	89.4	0.0	19.2	24.2	5.0
C194	58.0	60.2	2.2	55.2	56.9	1.7	104.6	106.3	1.7	85.6	85.6	0.0	20.7	27.9	7.2
C195	48.9	50.7	1.8	47.4	49.1	1.7	96.7	98.5	1.8	85.6	85.6	0.0	3.5	5.2	1.7
C196	50.5	52.6	2.1	48.4	49.3	0.9	97.8	98.7	0.9	87.5	88.3	0.8	4.0	5.0	1.0
C197	44.0	45.8	1.8	42.4	43.2	0.8	91.8	92.6	0.8	83.9	83.3	-0.6	0.9	1.2	0.3
C198	51.4	53.2	1.8	49.8	51.4	1.6	99.1	100.8	1.7	83.6	83.7	0.1	5.0	7.6	2.6
C199	49.2	51.1	1.9	47.7	49.6	1.9	97.1	98.9	1.8	84.9	85.3	0.4	3.7	5.7	2.0
C200	56.1	59.9	3.8	54.6	57.6	3.0	104.0	106.9	2.9	92.2	92.5	0.3	17.0	27.4	10.4
C201	52.2	53.6	1.4	49.4	50.5	1.1	98.8	99.9	1.1	78.3	82.7	4.4	5.4	6.6	1.2
C202	46.4	48.2	1.8	44.0	45.2	1.2	93.4	94.6	1.2	77.6	79.0	1.4	0.7	1.1	0.4
C203	52.4	54.5	2.1	50.1	52.0	1.9	99.4	101.3	1.9	86.8	86.8	0.0	6.1	9.4	3.3
C204	53.6	55.9	2.3	51.4	53.5	2.1	100.8	102.9	2.1	91.4	91.4	0.0	8.3	10.8	2.5
C205	61.1	61.6	0.5	58.1	58.5	0.4	107.5	107.9	0.4	87.1	87.1	0.0	28.8	36.1	7.3
C206	61.4	62.0	0.6	58.4	58.9	0.5	107.8	108.3	0.5	87.3	87.6	0.3	30.2	38.3	8.1
C207	60.0	62.4	2.4	57.3	59.1	1.8	106.7	108.5	1.8	86.8	87.5	0.7	27.5	37.0	9.5
C208	60.6	62.0	1.4	57.6	58.8	1.2	107.0	108.1	1.1	87.0	87.0	0.0	27.5	35.7	8.2
C209	63.1	64.0	0.9	60.4	60.9	0.5	109.7	110.3	0.6	89.9	90.2	0.3	37.7	48.1	10.4
C210	62.2	64.4	2.2	59.6	61.1	1.5	109.0	110.5	1.5	88.7	89.8	1.1	35.3	46.3	11.0
C211	53.4	57.4	4.0	51.9	55.1	3.2	101.3	104.5	3.2	87.0	89.3	2.3	10.0	19.8	9.8
C212	53.4	57.4	4.0	51.9	55.1	3.2	101.3	104.4	3.1	86.6	88.8	2.2	10.0	19.8	9.8
C213	53.3	57.3	4.0	51.9	55.0	3.1	101.2	104.4	3.2	87.8	90.5	2.7	10.0	19.2	9.2
C214	64.1	63.0	-1.1	61.9	59.6	-2.3	111.3	109.0	-2.3	97.8	96.4	-1.4	33.9	31.2	-2.7
C215	55.2	57.5	2.3	53.1	54.9	1.8	102.5	104.3	1.8	91.6	91.6	0.0	12.7	16.0	3.3
C216	60.2	62.4	2.2	57.7	59.3	1.6	107.1	108.7	1.6	92.0	92.0	0.0	29.8	38.6	8.8
C217	52.3	54.2	1.9	50.1	51.3	1.2	99.5	100.7	1.2	84.8	84.8	0.0	8.0	9.0	1.0
C218	55.6	58.4	2.8	52.8	55.0	2.2	102.2	104.4	2.2	84.6	84.6	0.0	14.4	21.6	7.2
C219	47.4	50.0	2.6	45.4	47.3	1.9	94.7	96.7	2.0	83.4	83.2	-0.2	2.0	3.1	1.1
C220	57.1	60.0	2.9	55.2	57.1	1.9	104.5	106.5	2.0	89.5	89.5	0.0	19.3	24.2	4.9
C221	51.8	55.0	3.2	50.2	51.5	1.3	99.5	100.9	1.4	87.8	87.1	-0.7	5.8	7.7	1.9
C222	63.4	64.6	1.2	61.4	61.9	0.5	110.8	111.2	0.4	92.9	92.9	0.0	47.9	54.9	7.0

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C223	52.5	55.6	3.1	50.7	52.2	1.5	100.1	101.6	1.5	88.0	87.2	-0.8	6.8	9.2	2.4
C224	62.5	63.5	1.0	60.2	60.6	0.4	109.5	110.0	0.5	90.7	90.7	0.0	40.4	46.6	6.2
C225	59.6	60.4	0.8	56.9	57.4	0.5	106.3	106.8	0.5	86.6	86.6	0.0	26.5	31.0	4.5
C226	58.0	60.7	2.7	55.6	57.7	2.1	105.0	107.1	2.1	86.4	86.5	0.1	20.9	32.0	11.1
C230	46.2	47.3	1.1	43.3	44.3	1.0	92.6	93.6	1.0	78.1	78.1	0.0	1.1	1.4	0.3
C231	58.2	60.2	2.0	55.3	56.8	1.5	104.7	106.2	1.5	85.4	85.4	0.0	21.1	27.8	6.7
C232	60.4	63.4	3.0	58.7	61.4	2.7	108.0	110.8	2.8	102.1	102.1	0.0	31.7	36.2	4.5
C233	62.4	64.7	2.3	59.8	61.7	1.9	109.2	111.0	1.8	93.8	93.5	-0.3	27.8	35.3	7.5
H1	47.5	49.4	1.9	46.4	48.2	1.8	95.7	97.6	1.9	85.2	85.2	0.0	2.4	3.6	1.2
H2	47.7	50.4	2.7	46.3	48.6	2.3	95.6	97.9	2.3	88.7	89.9	1.2	1.9	3.4	1.5
L1	45.9	47.6	1.7	43.6	44.7	1.1	93.0	94.1	1.1	76.4	77.5	1.1	0.8	1.2	0.4
L2	56.0	58.2	2.2	53.9	55.1	1.2	103.3	104.4	1.1	86.7	86.7	0.0	14.6	18.2	3.6
L3	47.1	49.0	1.9	46.1	47.9	1.8	95.4	97.3	1.9	85.2	85.2	0.0	1.9	2.7	0.8
L4	52.4	55.5	3.1	50.8	53.4	2.6	100.2	102.8	2.6	89.1	89.3	0.2	8.7	14.7	6.0
L5	45.8	48.0	2.2	43.4	45.1	1.7	92.7	94.5	1.8	82.7	81.8	-0.9	0.5	1.0	0.5
S1	57.1	59.6	2.5	54.6	56.5	1.9	104.0	105.9	1.9	85.6	85.6	0.0	18.1	26.9	8.8
S2	49.2	50.9	1.7	47.6	49.3	1.7	97.0	98.7	1.7	86.9	86.9	0.0	3.5	5.1	1.6
S3	45.0	46.6	1.6	43.9	45.4	1.5	93.3	94.7	1.4	84.8	84.8	0.0	1.1	1.6	0.5
S4	62.9	64.8	1.9	60.5	61.7	1.2	109.8	111.1	1.3	93.6	93.6	0.0	44.9	55.4	10.5
S5	45.6	47.6	2.0	43.5	44.6	1.1	92.8	93.9	1.1	78.8	80.1	1.3	0.8	1.1	0.3
S6	53.9	56.9	3.0	52.2	54.7	2.5	101.6	104.1	2.5	86.9	88.3	1.4	10.9	18.3	7.4
S7	48.1	51.2	3.1	46.3	48.9	2.6	95.7	98.2	2.5	83.0	85.9	2.9	2.1	3.6	1.5
S8	54.0	57.8	3.8	52.6	55.6	3.0	101.9	105.0	3.1	91.1	93.4	2.3	11.6	20.7	9.1
S9	41.7	43.2	1.5	39.9	41.3	1.4	89.3	90.7	1.4	80.0	80.8	0.8	0.5	0.7	0.2
S10	51.8	53.6	1.8	50.2	51.8	1.6	99.6	101.2	1.6	86.0	86.0	0.0	6.0	8.8	2.8
S11	49.3	50.6	1.3	48.2	49.5	1.3	97.6	98.8	1.2	87.2	87.6	0.4	3.1	4.3	1.2
S12	46.6	47.9	1.3	43.8	44.9	1.1	93.2	94.3	1.1	79.9	79.9	0.0	1.2	1.6	0.4
S13	49.0	50.6	1.6	47.6	49.1	1.5	96.9	98.5	1.6	88.1	88.1	0.0	3.3	4.6	1.3
S14	45.4	47.4	2.0	44.2	46.0	1.8	93.5	95.3	1.8	87.5	87.5	0.0	1.1	1.7	0.6
S15	55.2	57.5	2.3	53.2	54.3	1.1	102.5	103.7	1.2	86.5	86.5	0.0	12.4	15.7	3.3
S16	51.9	55.4	3.5	50.1	52.4	2.3	99.4	101.7	2.3	89.0	89.0	0.0	6.1	8.9	2.8

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S17	42.2	43.6	1.4	40.7	41.7	1.0	90.1	91.1	1.0	83.4	84.3	0.9	0.5	0.6	0.1
S18	42.9	44.3	1.4	41.2	42.4	1.2	90.6	91.7	1.1	81.5	81.5	0.0	0.8	1.1	0.3
S19	48.9	50.9	2.0	47.5	49.5	2.0	96.9	98.8	1.9	85.4	85.8	0.4	3.3	5.2	1.9
S20	59.7	63.2	3.5	57.9	60.5	2.6	107.2	109.9	2.7	90.7	91.4	0.7	26.8	42.0	15.2
S22	49.3	50.8	1.5	47.9	49.3	1.4	97.3	98.7	1.4	88.5	88.5	0.0	3.4	4.8	1.4
S23	51.0	52.7	1.7	49.6	51.1	1.5	99.0	100.4	1.4	88.0	88.0	0.0	4.7	6.8	2.1
S24	49.8	52.7	2.9	48.0	49.0	1.0	97.4	98.4	1.0	86.0	84.7	-1.3	3.3	5.0	1.7
S25	49.7	52.2	2.5	47.4	48.6	1.2	96.8	98.0	1.2	83.3	82.2	-1.1	2.7	4.5	1.8
S26	47.0	49.8	2.8	45.5	47.6	2.1	94.8	96.9	2.1	85.4	85.4	0.0	2.4	4.2	1.8
S27	57.3	58.9	1.6	54.6	55.8	1.2	104.0	105.1	1.1	85.3	85.3	0.0	20.0	25.4	5.4
S28	57.1	59.1	2.0	54.7	55.8	1.1	104.1	105.2	1.1	86.2	86.2	0.0	19.6	24.5	4.9
S29	51.9	54.8	2.9	49.9	51.6	1.7	99.3	100.9	1.6	86.0	86.0	0.0	6.5	8.7	2.2
S30	47.3	49.0	1.7	44.8	46.2	1.4	94.2	95.5	1.3	78.7	78.7	0.0	1.0	1.4	0.4
S31	45.1	47.2	2.1	43.0	44.2	1.2	92.4	93.5	1.1	79.8	81.1	1.3	0.8	1.0	0.2
S32	47.2	48.9	1.7	44.8	46.1	1.3	94.2	95.5	1.3	78.8	78.8	0.0	1.0	1.4	0.4
S33	46.1	47.6	1.5	43.6	44.8	1.2	93.0	94.2	1.2	76.7	76.7	0.0	0.9	1.4	0.5
S34	51.7	53.7	2.0	49.9	51.8	1.9	99.3	101.2	1.9	86.0	86.0	0.0	6.1	9.5	3.4
S35	42.7	44.2	1.5	41.1	42.2	1.1	90.5	91.5	1.0	84.5	85.0	0.5	0.5	0.6	0.1
S36	59.3	62.3	3.0	57.2	59.5	2.3	106.6	108.8	2.2	89.5	89.5	0.0	24.7	38.8	14.1
S37	45.2	47.3	2.1	42.9	44.5	1.6	92.3	93.9	1.6	83.8	82.3	-1.5	0.4	0.8	0.4
S38	57.3	59.1	1.8	54.6	55.8	1.2	104.0	105.2	1.2	85.5	85.5	0.0	19.9	25.5	5.6
S39	52.6	54.1	1.5	49.9	51.1	1.2	99.3	100.5	1.2	78.1	78.6	0.5	6.7	7.8	1.1
S40	48.7	50.1	1.4	47.6	48.9	1.3	96.9	98.3	1.4	87.3	87.3	0.0	3.1	4.3	1.2
S41	46.3	48.1	1.8	45.3	47.1	1.8	94.7	96.4	1.7	85.8	85.8	0.0	2.0	2.8	0.8
S42	50.1	51.3	1.2	48.9	49.9	1.0	98.2	99.3	1.1	87.8	88.0	0.2	3.5	4.9	1.4
S43	49.5	50.9	1.4	48.1	49.4	1.3	97.4	98.8	1.4	88.5	88.5	0.0	3.4	4.9	1.5
S44	43.0	44.4	1.4	41.8	42.9	1.1	91.2	92.3	1.1	84.0	84.5	0.5	0.7	1.0	0.3
S45	46.5	48.2	1.7	45.4	47.2	1.8	94.8	96.6	1.8	86.1	86.1	0.0	2.0	2.9	0.9
S46	42.8	44.2	1.4	41.2	42.2	1.0	90.6	91.6	1.0	85.6	85.8	0.2	0.5	0.6	0.1
S47	55.0	57.2	2.2	52.7	54.4	1.7	102.1	103.8	1.7	84.3	84.3	0.0	12.0	18.5	6.5
S48	46.9	48.7	1.8	45.9	47.6	1.7	95.2	97.0	1.8	86.6	86.6	0.0	2.3	3.3	1.0

Table I-3, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S49	44.1	46.2	2.1	42.5	44.0	1.5	91.9	93.4	1.5	83.2	83.0	-0.2	0.7	1.0	0.3
S50	43.1	44.5	1.4	41.9	43.0	1.1	91.2	92.3	1.1	86.1	86.1	0.0	0.9	1.1	0.2
S51	47.6	49.7	2.1	46.2	48.3	2.1	95.6	97.7	2.1	88.0	88.0	0.0	2.1	3.5	1.4
S52	53.9	57.4	3.5	52.1	54.3	2.2	101.5	103.7	2.2	88.0	88.0	0.0	10.1	13.6	3.5
S53	47.0	48.8	1.8	45.9	47.8	1.9	95.3	97.1	1.8	85.8	85.8	0.0	2.0	2.8	0.8
S54	55.1	59.5	4.4	53.7	57.1	3.4	103.1	106.4	3.3	86.9	90.0	3.1	15.0	26.8	11.8
S55	44.7	46.8	2.1	42.8	44.2	1.4	92.1	93.6	1.5	82.8	82.7	-0.1	0.4	0.5	0.1
S56	59.0	61.1	2.1	56.8	57.9	1.1	106.2	107.3	1.1	88.6	88.6	0.0	27.5	34.4	6.9
S57	47.4	48.9	1.5	46.5	47.8	1.3	95.8	97.2	1.4	84.5	84.5	0.0	2.5	3.5	1.0
S58	49.1	50.5	1.4	48.1	49.4	1.3	97.5	98.8	1.3	87.1	87.4	0.3	3.1	4.4	1.3
S59	44.8	46.7	1.9	43.6	45.3	1.7	93.0	94.6	1.6	86.1	86.5	0.4	1.1	1.5	0.4
S60	49.2	50.6	1.4	48.2	49.5	1.3	97.6	98.9	1.3	87.2	87.4	0.2	3.1	4.5	1.4
S61	48.4	49.9	1.5	47.6	48.9	1.3	96.9	98.3	1.4	86.7	86.8	0.1	2.8	3.9	1.1
S62	52.1	54.3	2.2	50.0	50.9	0.9	99.4	100.2	0.8	85.0	85.0	0.0	6.1	7.7	1.6
S63	47.4	49.2	1.8	46.2	48.0	1.8	95.6	97.3	1.7	86.9	86.9	0.0	2.8	3.9	1.1
S64	46.1	49.0	2.9	44.5	46.6	2.1	93.9	96.0	2.1	85.3	85.3	0.0	1.8	3.4	1.6
S65	60.7	63.8	3.1	58.4	60.7	2.3	107.8	110.0	2.2	89.5	89.5	0.0	30.7	43.7	13.0
S66	44.0	45.6	1.6	42.9	44.2	1.3	92.3	93.6	1.3	85.5	85.4	-0.1	1.0	1.3	0.3
S67	43.9	45.5	1.6	42.8	44.1	1.3	92.2	93.5	1.3	85.4	85.5	0.1	1.0	1.3	0.3
S68	43.2	44.4	1.2	42.0	42.8	0.8	91.3	92.2	0.9	87.5	87.2	-0.3	0.7	0.8	0.1
S69	57.7	60.8	3.1	55.9	58.1	2.2	105.2	107.5	2.3	91.7	91.7	0.0	22.0	27.6	5.6
S70	44.6	46.4	1.8	43.3	44.6	1.3	92.6	94.0	1.4	85.2	85.2	0.0	0.7	1.0	0.3
S71	46.3	47.9	1.6	43.8	45.0	1.2	93.2	94.4	1.2	76.1	76.1	0.0	0.8	1.3	0.5
S72	61.6	64.8	3.2	59.9	62.4	2.5	109.3	111.7	2.4	96.6	96.6	0.0	36.9	45.4	8.5
S73	51.0	54.1	3.1	48.5	50.9	2.4	97.9	100.3	2.4	84.4	84.5	0.1	4.3	10.7	6.4
S74	57.7	60.5	2.8	55.8	57.7	1.9	105.2	107.1	1.9	90.0	90.0	0.0	21.8	27.0	5.2
S75	58.9	60.8	1.9	56.3	57.4	1.1	105.7	106.8	1.1	86.6	86.6	0.0	26.2	33.6	7.4

Source: Landrum & Brown, 2007.

Table I-4
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C1	49.9	49.3	-0.6	48.9	48.3	-0.6	98.3	97.7	-0.6	86.2	86.2	0.0	4.1	3.5	-0.6
C2	57.8	57.4	-0.4	54.5	54.2	-0.6	103.9	103.6	-0.3	84.8	84.8	0.0	20.4	19.9	-0.5
C3	49.3	48.6	-0.7	48.1	47.5	-0.6	97.5	96.9	-0.6	86.3	86.3	0.0	2.8	2.4	-0.4
C4	48.1	47.5	-0.6	47.0	46.4	-0.6	96.4	95.8	-0.6	86.3	86.3	0.0	3.1	2.7	-0.4
C5	57.4	57.0	-0.4	54.3	53.9	-0.6	103.7	103.3	-0.4	85.3	85.3	0.0	16.4	15.0	-1.4
C6	50.0	49.4	-0.6	49.0	48.4	-0.6	98.4	97.8	-0.6	87.2	87.2	0.0	4.0	3.4	-0.6
C7	53.1	52.9	-0.2	49.6	49.5	-0.6	99.0	98.9	-0.1	87.6	87.6	0.0	5.6	5.5	-0.1
C8	53.6	53.0	-0.6	51.7	51.1	-0.6	101.1	100.5	-0.6	86.3	86.3	0.0	8.6	7.5	-1.1
C9	53.0	52.3	-0.7	51.3	50.6	-0.6	100.6	100.0	-0.6	84.0	84.0	0.0	7.2	6.3	-0.9
C10	56.7	56.3	-0.4	53.2	52.9	-0.6	102.5	102.2	-0.3	86.9	86.9	0.0	15.4	14.5	-0.9
C11	50.3	49.7	-0.6	48.9	48.3	-0.6	98.3	97.7	-0.6	84.7	84.7	0.0	4.9	4.2	-0.7
C12	49.5	48.8	-0.7	48.2	47.6	-0.6	97.6	96.9	-0.7	86.7	86.7	0.0	4.2	3.6	-0.6
C14	60.6	60.3	-0.3	57.2	57.0	-0.6	106.6	106.4	-0.2	85.8	85.8	0.0	29.0	27.9	-1.1
C15	49.0	48.4	-0.6	47.9	47.3	-0.6	97.3	96.7	-0.6	84.8	84.8	0.0	3.4	2.9	-0.5
C16	51.1	50.4	-0.7	49.7	49.0	-0.6	99.0	98.4	-0.6	87.9	87.9	0.0	5.0	4.3	-0.7
C17	53.3	52.6	-0.7	51.6	51.0	-0.6	100.9	100.3	-0.6	84.1	84.1	0.0	7.8	6.8	-1.0
C18	59.5	59.3	-0.2	56.2	56.0	-0.6	105.6	105.4	-0.2	84.9	84.9	0.0	25.5	24.6	-0.9
C19	53.3	52.9	-0.4	50.3	49.9	-0.6	99.7	99.3	-0.4	84.0	84.0	0.0	7.4	6.7	-0.7
C20	60.4	60.1	-0.3	57.0	56.7	-0.6	106.4	106.1	-0.3	86.4	86.4	0.0	31.3	30.0	-1.3
C21	59.4	58.9	-0.5	56.2	55.7	-0.6	105.5	105.1	-0.4	87.0	87.0	0.0	24.1	22.0	-2.1
C22	50.3	51.2	0.9	47.9	48.8	-0.6	97.2	98.2	1.0	84.3	84.3	0.0	2.7	3.7	1.0
C23	47.2	46.9	-0.3	44.9	44.6	-0.6	94.3	94.0	-0.3	84.7	84.7	0.0	1.8	1.6	-0.2
C24	59.9	60.5	0.7	56.9	57.5	-0.6	106.2	106.9	0.7	91.8	91.8	0.0	31.6	33.9	2.5
C25	48.1	47.5	-0.6	47.1	46.5	-0.6	96.5	95.9	-0.6	85.7	85.7	0.0	2.6	2.3	-0.3
C26	56.0	55.4	-0.6	53.9	53.3	-0.6	103.2	102.7	-0.5	87.2	87.2	0.0	16.0	14.1	-1.9
C27	53.3	52.7	-0.6	51.6	51.0	-0.6	101.0	100.4	-0.6	83.9	83.9	0.0	7.9	6.9	-1.0
C28	56.5	56.3	-0.2	53.3	53.1	-0.6	102.6	102.4	-0.2	86.7	87.2	0.5	12.8	12.1	-0.7
C29	60.5	60.2	-0.3	57.2	56.9	-0.6	106.5	106.2	-0.3	86.3	86.3	0.0	32.0	30.6	-1.4
C30	55.5	54.9	-0.6	53.5	53.0	-0.6	102.9	102.3	-0.6	84.9	84.9	0.0	13.6	12.1	-1.5
C31	60.2	59.8	-0.4	57.3	57.0	-0.6	106.7	106.3	-0.4	86.5	86.5	0.0	30.4	28.7	-1.7
C32	55.9	55.8	-0.1	52.6	52.5	-0.6	102.0	101.9	-0.1	86.5	86.9	0.4	11.3	10.8	-0.5
C33	50.6	49.9	-0.7	49.4	48.8	-0.6	98.8	98.2	-0.6	86.5	86.5	0.0	4.6	3.9	-0.7

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C34	56.1	55.6	-0.5	54.0	53.5	-0.6	103.4	102.9	-0.5	87.5	87.5	0.0	16.3	14.4	-1.9
C35	49.2	48.5	-0.7	48.0	47.3	-0.6	97.4	96.7	-0.7	87.1	87.1	0.0	3.8	3.3	-0.5
C36	49.6	48.9	-0.7	48.4	47.8	-0.6	97.8	97.1	-0.7	87.2	87.2	0.0	4.0	3.4	-0.6
C37	59.6	59.1	-0.5	56.6	56.2	-0.6	106.0	105.6	-0.4	86.0	86.0	0.0	27.8	25.8	-2.0
C38	53.8	53.5	-0.3	50.7	50.4	-0.6	100.1	99.8	-0.3	85.0	85.0	0.0	7.1	6.6	-0.5
C39	57.3	56.8	-0.5	55.1	54.6	-0.6	104.4	103.9	-0.5	92.8	92.8	0.0	19.0	16.9	-2.1
C40	50.2	51.0	0.8	47.6	48.4	-0.6	97.0	97.8	0.8	81.9	81.9	0.0	2.7	3.5	0.8
C41	43.4	44.7	1.2	41.5	42.6	-0.6	90.9	92.0	1.1	81.2	81.2	0.0	0.7	0.9	0.2
C42	49.4	48.7	-0.7	48.2	47.6	-0.6	97.6	96.9	-0.7	87.0	87.0	0.0	2.9	2.5	-0.4
C43	49.1	48.5	-0.6	48.0	47.4	-0.6	97.4	96.8	-0.6	85.3	85.3	0.0	3.0	2.6	-0.4
C44	59.5	59.0	-0.5	56.6	56.1	-0.6	105.9	105.5	-0.4	86.0	86.0	0.0	27.8	25.7	-2.1
C45	49.3	48.6	-0.7	48.2	47.6	-0.6	97.6	96.9	-0.7	84.8	84.8	0.0	3.7	3.2	-0.5
C46	58.1	57.7	-0.4	55.7	55.3	-0.6	105.1	104.6	-0.5	87.9	87.9	0.0	22.3	20.2	-2.1
C47	50.0	49.4	-0.6	49.0	48.4	-0.6	98.4	97.8	-0.6	86.2	86.2	0.0	4.1	3.6	-0.5
C48	45.8	45.6	-0.2	43.7	43.4	-0.6	93.1	92.8	-0.3	83.1	83.1	0.0	1.0	0.9	-0.1
C49	50.7	50.0	-0.7	49.1	48.5	-0.6	98.5	97.8	-0.7	86.8	86.8	0.0	5.0	4.3	-0.7
C50	49.4	48.8	-0.6	48.4	47.8	-0.6	97.7	97.1	-0.6	86.2	86.2	0.0	3.6	3.1	-0.5
C51	54.8	54.2	-0.6	52.9	52.3	-0.6	102.2	101.7	-0.5	84.5	84.5	0.0	11.7	10.2	-1.5
C52	51.1	50.5	-0.6	49.6	49.0	-0.6	99.0	98.4	-0.6	86.1	86.1	0.0	4.6	4.0	-0.6
C53	57.1	56.6	-0.5	53.9	53.4	-0.6	103.2	102.8	-0.4	85.8	85.9	0.1	14.4	13.0	-1.4
C54	50.5	49.8	-0.7	49.0	48.4	-0.6	98.4	97.7	-0.7	87.9	87.9	0.0	4.6	4.0	-0.6
C55	45.6	45.1	-0.5	44.4	43.8	-0.6	93.7	93.2	-0.5	84.4	84.4	0.0	1.5	1.3	-0.2
C56	54.2	53.6	-0.6	52.4	51.8	-0.6	101.8	101.2	-0.6	84.4	84.4	0.0	10.2	8.9	-1.3
C57	52.6	52.0	-0.6	51.1	50.5	-0.6	100.4	99.8	-0.6	87.4	87.4	0.0	6.6	5.7	-0.9
C58	43.4	44.5	1.1	41.9	42.8	-0.6	91.3	92.2	0.9	80.9	80.9	0.0	1.0	1.1	0.1
C59	43.8	44.9	1.1	42.1	43.1	-0.6	91.5	92.5	1.0	80.2	80.2	0.0	1.1	1.3	0.2
C60	48.9	48.3	-0.6	47.7	47.1	-0.6	97.1	96.4	-0.7	87.4	87.4	0.0	3.8	3.3	-0.5
C61	48.0	47.3	-0.7	46.9	46.3	-0.6	96.3	95.7	-0.6	85.9	85.9	0.0	3.0	2.6	-0.4
C62	54.1	53.4	-0.7	52.2	51.6	-0.6	101.5	100.9	-0.6	86.5	86.5	0.0	10.4	9.0	-1.4
C63	50.3	49.6	-0.7	48.8	48.2	-0.6	98.2	97.5	-0.7	85.8	85.8	0.0	4.8	4.1	-0.7
C64	48.7	48.0	-0.7	47.5	46.9	-0.6	96.9	96.3	-0.6	87.2	87.2	0.0	3.6	3.1	-0.5
C65	48.7	48.1	-0.6	47.6	46.9	-0.6	96.9	96.3	-0.6	86.9	86.9	0.0	3.6	3.1	-0.5

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C66	59.8	59.3	-0.5	56.5	56.1	-0.6	105.9	105.5	-0.4	86.6	86.6	0.0	28.3	26.7	-1.6
C67	62.6	62.2	-0.4	59.4	58.9	-0.6	108.7	108.3	-0.4	88.5	88.5	0.0	44.3	41.3	-3.0
C68	56.7	56.2	-0.5	53.5	53.0	-0.6	102.8	102.4	-0.4	85.5	85.7	0.2	13.4	12.1	-1.3
C69	60.8	60.4	-0.4	57.6	57.1	-0.6	106.9	106.5	-0.4	88.3	88.3	0.0	32.4	30.5	-1.9
C70	47.8	47.8	0.0	44.7	44.8	-0.6	94.1	94.1	0.0	79.9	79.9	0.0	1.1	1.2	0.1
C71	48.2	47.6	-0.6	47.1	46.5	-0.6	96.5	95.8	-0.7	86.5	86.5	0.0	3.2	2.8	-0.4
C72	59.6	59.2	-0.4	56.7	56.2	-0.6	106.1	105.6	-0.5	86.1	86.1	0.0	28.1	25.9	-2.2
C73	56.4	56.2	-0.2	53.2	53.1	-0.6	102.6	102.5	-0.1	87.0	88.2	1.2	11.9	11.4	-0.5
C74	54.3	54.2	-0.1	51.1	51.0	-0.6	100.5	100.4	-0.1	86.2	86.6	0.4	7.6	7.3	-0.3
C76	59.6	59.2	-0.4	56.6	56.2	-0.6	106.0	105.6	-0.4	85.9	85.9	0.0	27.4	25.5	-1.9
C77	52.8	52.1	-0.7	51.1	50.5	-0.6	100.4	99.8	-0.6	84.7	84.7	0.0	6.9	5.9	-1.0
C78	58.8	58.4	-0.4	56.3	55.8	-0.6	105.7	105.2	-0.5	86.6	86.6	0.0	25.0	22.9	-2.1
C79	61.3	60.9	-0.4	58.3	57.9	-0.6	107.7	107.3	-0.4	86.9	86.9	0.0	34.8	32.6	-2.2
C80	50.8	50.2	-0.6	49.4	48.7	-0.6	98.7	98.1	-0.6	85.2	85.2	0.0	5.4	4.7	-0.7
C81	59.1	58.8	-0.3	55.9	55.6	-0.6	105.2	105.0	-0.2	84.8	84.8	0.0	24.5	23.6	-0.9
C82	50.0	49.3	-0.7	48.6	48.0	-0.6	98.0	97.4	-0.6	85.2	85.2	0.0	4.5	3.9	-0.6
C83	49.8	49.1	-0.7	48.4	47.7	-0.6	97.8	97.1	-0.7	87.7	87.7	0.0	4.3	3.7	-0.6
C84	53.8	53.3	-0.5	51.9	51.4	-0.6	101.3	100.8	-0.5	85.9	85.9	0.0	10.1	8.8	-1.3
C85	52.7	52.1	-0.6	50.9	50.4	-0.6	100.3	99.7	-0.6	87.5	87.5	0.0	6.7	5.9	-0.8
C86	62.7	62.2	-0.5	59.9	59.4	-0.6	109.2	108.7	-0.5	89.5	89.5	0.0	43.2	39.0	-4.2
C87	52.7	52.1	-0.6	51.1	50.5	-0.6	100.4	99.9	-0.5	88.0	88.0	0.0	6.8	6.0	-0.8
C88	58.6	58.2	-0.4	55.5	55.2	-0.6	104.9	104.5	-0.4	87.2	88.1	0.9	19.2	17.6	-1.6
C89	52.6	52.0	-0.6	51.0	50.4	-0.6	100.4	99.8	-0.6	88.2	88.2	0.0	6.7	5.8	-0.9
C90	59.2	58.8	-0.4	56.1	55.7	-0.6	105.4	105.1	-0.3	85.4	85.4	0.0	25.5	24.1	-1.4
C91	56.5	56.4	-0.1	53.5	53.5	-0.6	102.9	102.9	0.0	90.5	93.6	3.1	12.4	12.1	-0.3
C92	49.8	49.2	-0.6	48.5	47.8	-0.6	97.8	97.2	-0.6	86.8	86.8	0.0	4.5	3.8	-0.7
C93	48.5	47.8	-0.7	47.3	46.7	-0.6	96.7	96.1	-0.6	85.2	85.2	0.0	3.4	2.9	-0.5
C94	49.9	49.2	-0.7	48.5	47.8	-0.6	97.8	97.2	-0.6	87.5	87.5	0.0	4.4	3.8	-0.6
C95	57.7	57.3	-0.4	54.5	54.1	-0.6	103.9	103.5	-0.4	85.4	85.4	0.0	17.3	15.7	-1.6
C96	47.9	47.3	-0.6	46.9	46.3	-0.6	96.3	95.6	-0.7	85.4	85.4	0.0	2.3	2.0	-0.3
C97	59.0	58.5	-0.5	55.8	55.4	-0.6	105.2	104.7	-0.5	86.8	86.8	0.0	22.0	19.9	-2.1
C98	55.9	55.3	-0.6	53.8	53.3	-0.6	103.2	102.7	-0.5	87.7	87.7	0.0	15.3	13.4	-1.9

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C99	48.4	47.8	-0.6	47.4	46.8	-0.6	96.8	96.1	-0.7	86.1	86.1	0.0	2.8	2.4	-0.4
C100	51.4	51.0	-0.4	49.0	48.6	-0.6	98.3	98.0	-0.3	84.5	84.5	0.0	5.4	4.8	-0.6
C101	53.0	52.4	-0.6	51.3	50.8	-0.6	100.7	100.1	-0.6	87.4	87.4	0.0	7.4	6.5	-0.9
C102	60.9	60.5	-0.4	58.1	57.7	-0.6	107.5	107.1	-0.4	90.4	91.5	1.1	29.4	27.0	-2.4
C103	49.8	49.2	-0.6	48.8	48.1	-0.6	98.1	97.5	-0.6	85.1	85.1	0.0	4.0	3.5	-0.5
C104	55.0	54.9	-0.1	51.7	51.7	-0.6	101.1	101.0	-0.1	86.1	86.8	0.7	9.2	8.9	-0.3
C105	55.1	55.0	-0.1	51.8	51.8	-0.6	101.2	101.1	-0.1	85.9	86.9	1.0	9.3	9.0	-0.3
C106	59.5	59.1	-0.4	56.8	56.4	-0.6	106.2	105.8	-0.4	86.8	86.8	0.0	27.1	25.0	-2.1
C107	56.3	55.9	-0.4	53.1	52.7	-0.6	102.5	102.1	-0.4	85.3	85.6	0.3	12.4	11.3	-1.1
C108	59.6	59.1	-0.5	57.2	56.7	-0.6	106.6	106.1	-0.5	89.1	89.1	0.0	26.8	24.1	-2.7
C109	63.2	62.9	-0.3	59.9	59.5	-0.6	109.2	108.9	-0.3	89.8	89.8	0.0	45.6	42.7	-2.9
C110	50.4	49.7	-0.7	48.9	48.3	-0.6	98.3	97.6	-0.7	87.0	87.0	0.0	4.8	4.1	-0.7
C111	58.1	57.9	-0.2	55.1	54.9	-0.6	104.5	104.3	-0.2	88.2	89.2	1.0	17.2	16.2	-1.0
C112	51.7	51.1	-0.6	50.2	49.6	-0.6	99.5	98.9	-0.6	86.0	86.0	0.0	6.4	5.6	-0.8
C113	62.0	61.7	-0.3	58.7	58.5	-0.6	108.1	107.9	-0.2	87.0	87.0	0.0	35.2	33.5	-1.7
C114	48.8	48.1	-0.7	47.7	47.1	-0.6	97.1	96.4	-0.7	86.2	86.2	0.0	3.0	2.6	-0.4
C115	48.2	47.5	-0.7	47.2	46.5	-0.6	96.5	95.9	-0.6	85.8	85.8	0.0	2.7	2.3	-0.4
C116	56.0	55.4	-0.6	53.8	53.3	-0.6	103.2	102.7	-0.5	87.4	87.4	0.0	15.7	13.9	-1.8
C117	48.5	47.9	-0.6	47.5	46.8	-0.6	96.8	96.2	-0.6	86.3	86.3	0.0	2.9	2.5	-0.4
C118	59.9	59.6	-0.3	56.5	56.3	-0.6	105.9	105.7	-0.2	85.2	85.2	0.0	26.5	25.5	-1.0
C119	49.8	49.1	-0.7	48.5	47.9	-0.6	97.9	97.2	-0.7	84.9	84.9	0.0	4.1	3.6	-0.5
C120	53.2	52.5	-0.7	51.3	50.6	-0.6	100.6	100.0	-0.6	84.8	84.8	0.0	8.2	7.1	-1.1
C121	46.5	46.0	-0.5	44.8	44.3	-0.6	94.2	93.7	-0.5	85.3	85.3	0.0	1.1	1.0	-0.1
C122	48.2	47.6	-0.6	47.2	46.6	-0.6	96.6	96.0	-0.6	85.9	85.9	0.0	2.7	2.3	-0.4
C123	56.3	55.8	-0.5	54.2	53.7	-0.6	103.6	103.1	-0.5	88.0	88.0	0.0	16.5	14.5	-2.0
C124	51.5	50.8	-0.7	49.9	49.3	-0.6	99.3	98.6	-0.7	87.8	87.8	0.0	5.2	4.5	-0.7
C125	49.6	49.0	-0.6	48.5	47.8	-0.6	97.8	97.2	-0.6	85.1	85.1	0.0	3.4	2.9	-0.5
C126	50.0	49.3	-0.7	48.8	48.2	-0.6	98.2	97.5	-0.7	86.5	86.5	0.0	4.2	3.6	-0.6
C127	60.4	60.0	-0.4	57.0	56.7	-0.6	106.3	106.0	-0.3	86.4	86.4	0.0	31.3	30.0	-1.3
C128	50.1	49.4	-0.7	48.9	48.2	-0.6	98.2	97.6	-0.6	87.4	87.4	0.0	4.3	3.7	-0.6
C129	52.7	52.1	-0.6	51.0	50.4	-0.6	100.4	99.8	-0.6	85.2	85.2	0.0	6.8	5.9	-0.9
C130	48.6	47.9	-0.7	47.5	46.8	-0.6	96.8	96.2	-0.6	86.5	86.5	0.0	3.5	3.0	-0.5

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C131	49.4	48.7	-0.7	48.4	47.7	-0.6	97.7	97.1	-0.6	84.9	84.9	0.0	3.8	3.3	-0.5
C132	49.6	49.0	-0.6	48.7	48.1	-0.6	98.1	97.5	-0.6	86.6	86.6	0.0	3.8	3.3	-0.5
C133	48.9	48.2	-0.7	47.7	47.0	-0.6	97.1	96.4	-0.7	87.2	87.2	0.0	3.7	3.2	-0.5
C134	51.3	50.6	-0.7	49.6	49.0	-0.6	99.0	98.3	-0.7	86.2	86.2	0.0	5.5	4.7	-0.8
C135	60.4	60.1	-0.3	57.7	57.4	-0.6	107.0	106.7	-0.3	90.5	91.3	0.8	26.2	24.3	-1.9
C136	49.4	48.8	-0.6	48.3	47.6	-0.6	97.6	97.0	-0.6	87.0	87.0	0.0	3.9	3.4	-0.5
C137	49.0	48.4	-0.6	47.8	47.2	-0.6	97.2	96.6	-0.6	87.3	87.3	0.0	3.8	3.3	-0.5
C138	48.2	47.5	-0.7	47.1	46.4	-0.6	96.4	95.8	-0.6	86.4	86.4	0.0	3.2	2.8	-0.4
C139	53.2	52.6	-0.6	51.5	50.9	-0.6	100.9	100.3	-0.6	86.7	86.7	0.0	8.6	7.5	-1.1
C140	58.7	58.2	-0.5	55.5	55.0	-0.6	104.9	104.4	-0.5	86.5	86.6	0.1	20.3	18.5	-1.8
C141	62.3	61.8	-0.5	59.4	59.0	-0.6	108.8	108.4	-0.4	89.4	89.4	0.0	38.7	36.2	-2.5
C142	50.0	49.3	-0.7	48.6	47.9	-0.6	97.9	97.3	-0.6	86.6	86.6	0.0	4.5	3.9	-0.6
C143	56.4	56.0	-0.4	53.2	52.8	-0.6	102.6	102.2	-0.4	85.5	85.7	0.2	12.7	11.5	-1.2
C144	59.8	59.5	-0.3	56.9	56.5	-0.6	106.3	105.9	-0.4	88.7	89.8	1.1	24.0	21.9	-2.1
C145	60.6	60.4	-0.2	57.9	57.6	-0.6	107.3	107.0	-0.3	90.8	91.7	0.9	27.4	25.3	-2.1
C146	49.3	48.6	-0.7	48.1	47.4	-0.6	97.4	96.8	-0.6	87.5	87.5	0.0	3.9	3.4	-0.5
C147	48.0	47.4	-0.6	46.9	46.3	-0.6	96.3	95.7	-0.6	85.9	85.9	0.0	3.1	2.7	-0.4
C148	50.6	49.9	-0.7	49.4	48.7	-0.6	98.7	98.1	-0.6	87.3	87.3	0.0	4.6	4.0	-0.6
C149	56.7	56.3	-0.4	53.6	53.2	-0.6	103.0	102.6	-0.4	84.7	84.7	0.0	14.2	13.1	-1.1
C150	45.0	44.7	-0.3	43.2	42.8	-0.6	92.6	92.2	-0.4	86.0	86.0	0.0	1.1	1.0	-0.1
C151	49.7	49.3	-0.4	47.3	46.9	-0.6	96.7	96.3	-0.4	85.2	85.2	0.0	3.9	3.5	-0.4
C152	54.1	53.5	-0.6	52.0	51.5	-0.6	101.4	100.9	-0.5	84.9	84.9	0.0	9.5	8.3	-1.2
C153	57.6	57.3	-0.3	55.2	54.8	-0.6	104.5	104.2	-0.3	85.3	85.3	0.0	21.1	19.5	-1.6
C154	59.2	58.8	-0.4	56.1	55.7	-0.6	105.5	105.1	-0.4	87.3	88.4	1.1	21.8	19.9	-1.9
C156	55.9	55.3	-0.6	53.8	53.3	-0.6	103.2	102.7	-0.5	87.7	87.7	0.0	15.3	13.4	-1.9
C157	55.8	55.7	-0.1	52.7	52.5	-0.6	102.0	101.9	-0.1	87.0	87.5	0.5	9.2	9.0	-0.2
C158	64.9	64.5	-0.4	62.6	62.1	-0.6	112.0	111.5	-0.5	96.5	96.5	0.0	45.3	41.3	-4.0
C159	47.2	46.9	-0.3	44.9	44.6	-0.6	94.3	94.0	-0.3	84.7	84.7	0.0	1.8	1.6	-0.2
C160	58.0	57.6	-0.4	55.1	54.8	-0.6	104.5	104.1	-0.4	84.9	84.9	0.0	21.0	19.8	-1.2
C161	50.7	50.0	-0.7	49.3	48.7	-0.6	98.6	98.0	-0.6	85.4	85.4	0.0	5.1	4.5	-0.6
C162	54.6	54.0	-0.6	52.5	51.9	-0.6	101.8	101.3	-0.5	84.0	84.0	0.0	10.5	9.3	-1.2
C163	50.5	49.8	-0.7	49.2	48.6	-0.6	98.6	98.0	-0.6	87.6	87.6	0.0	4.5	3.9	-0.6

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C165	44.7	44.4	-0.3	43.1	42.7	-0.6	92.5	92.0	-0.5	82.6	82.6	0.0	0.9	0.8	-0.1
C166	49.7	49.0	-0.7	48.4	47.7	-0.6	97.7	97.1	-0.6	87.9	87.9	0.0	4.3	3.7	-0.6
C167	55.4	54.8	-0.6	53.3	52.8	-0.6	102.7	102.2	-0.5	84.7	84.7	0.0	13.2	11.7	-1.5
C168	62.2	61.8	-0.4	58.9	58.5	-0.6	108.3	107.9	-0.4	87.7	87.7	0.0	41.1	38.6	-2.5
C169	48.0	47.4	-0.6	46.9	46.3	-0.6	96.3	95.7	-0.6	86.0	86.0	0.0	3.1	2.7	-0.4
C170	52.3	51.6	-0.7	50.7	50.1	-0.6	100.1	99.5	-0.6	88.2	88.2	0.0	5.8	5.1	-0.7
C171	64.9	64.3	-0.6	62.2	61.6	-0.6	111.6	111.0	-0.6	94.8	94.8	0.0	56.3	50.1	-6.2
C172	49.6	49.0	-0.6	48.7	48.1	-0.6	98.1	97.4	-0.7	86.0	86.0	0.0	3.8	3.3	-0.5
C173	49.7	49.1	-0.6	48.8	48.2	-0.6	98.2	97.6	-0.6	86.9	86.9	0.0	3.8	3.3	-0.5
C174	53.0	52.9	-0.1	49.6	49.5	-0.6	98.9	98.9	0.0	87.7	87.7	0.0	5.6	5.4	-0.2
C175	49.2	48.6	-0.6	48.3	47.7	-0.6	97.6	97.0	-0.6	86.3	86.3	0.0	3.4	3.0	-0.4
C176	48.4	47.7	-0.7	47.3	46.7	-0.6	96.7	96.1	-0.6	86.5	86.5	0.0	3.0	2.6	-0.4
C177	54.8	54.4	-0.4	51.8	51.4	-0.6	101.2	100.8	-0.4	84.5	84.6	0.1	9.3	8.4	-0.9
C178	51.3	50.6	-0.7	49.8	49.1	-0.6	99.1	98.5	-0.6	88.0	88.0	0.0	5.1	4.4	-0.7
C179	60.4	60.0	-0.4	57.2	56.8	-0.6	106.5	106.2	-0.3	86.3	86.3	0.0	32.4	30.9	-1.5
C180	61.5	61.2	-0.3	58.9	58.6	-0.6	108.3	108.0	-0.3	92.2	93.2	1.0	31.0	28.5	-2.5
C181	59.8	59.4	-0.4	56.7	56.3	-0.6	106.1	105.7	-0.4	87.4	87.5	0.1	25.1	22.7	-2.4
C182	62.2	61.7	-0.5	59.4	59.0	-0.6	108.8	108.3	-0.5	90.3	90.3	0.0	38.0	35.3	-2.7
C183	54.0	53.4	-0.6	52.0	51.4	-0.6	101.4	100.8	-0.6	85.7	85.7	0.0	10.0	8.7	-1.3
C184	54.0	53.5	-0.5	51.6	51.1	-0.6	101.0	100.4	-0.6	88.0	88.0	0.0	9.0	8.0	-1.0
C185	57.8	57.4	-0.4	54.7	54.3	-0.6	104.1	103.7	-0.4	86.6	87.0	0.4	16.7	15.2	-1.5
C186	49.0	48.7	-0.3	46.7	46.4	-0.6	96.1	95.7	-0.4	85.5	85.5	0.0	3.5	3.1	-0.4
C187	54.3	53.7	-0.6	52.3	51.7	-0.6	101.7	101.1	-0.6	85.6	85.6	0.0	10.7	9.3	-1.4
C188	49.9	49.2	-0.7	48.5	47.9	-0.6	97.9	97.2	-0.7	86.9	86.9	0.0	4.5	3.9	-0.6
C189	53.1	52.5	-0.6	51.2	50.6	-0.6	100.5	100.0	-0.5	88.0	88.0	0.0	7.3	6.4	-0.9
C190	50.4	49.8	-0.6	48.9	48.3	-0.6	98.3	97.7	-0.6	85.6	85.6	0.0	5.0	4.3	-0.7
C191	54.8	54.7	-0.1	51.5	51.4	-0.6	100.9	100.8	-0.1	86.0	86.7	0.7	8.8	8.5	-0.3
C192	53.3	52.7	-0.6	51.5	50.9	-0.6	100.9	100.3	-0.6	87.0	87.0	0.0	8.0	7.0	-1.0
C193	59.9	59.6	-0.3	57.1	56.7	-0.6	106.4	106.1	-0.3	89.4	90.3	0.9	24.2	22.3	-1.9
C194	60.2	60.0	-0.2	56.9	56.7	-0.6	106.3	106.1	-0.2	85.6	85.6	0.0	27.9	27.1	-0.8
C195	50.7	50.0	-0.7	49.1	48.5	-0.6	98.5	97.9	-0.6	85.6	85.6	0.0	5.2	4.5	-0.7
C196	52.6	52.5	-0.1	49.3	49.3	-0.6	98.7	98.6	-0.1	88.3	88.3	0.0	5.0	4.8	-0.2

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C197	45.8	47.0	1.2	43.2	44.4	-0.6	92.6	93.8	1.2	83.3	83.3	0.0	1.2	1.6	0.4
C198	53.2	52.5	-0.7	51.4	50.8	-0.6	100.8	100.2	-0.6	83.7	83.7	0.0	7.6	6.6	-1.0
C199	51.1	50.4	-0.7	49.6	48.9	-0.6	98.9	98.3	-0.6	85.3	85.3	0.0	5.7	5.0	-0.7
C200	59.9	59.4	-0.5	57.6	57.1	-0.6	106.9	106.5	-0.4	92.5	92.5	0.0	27.4	24.4	-3.0
C201	53.6	53.4	-0.2	50.5	50.4	-0.6	99.9	99.7	-0.2	82.7	82.7	0.0	6.6	6.4	-0.2
C202	48.2	48.3	0.1	45.2	45.3	-0.6	94.6	94.7	0.1	79.0	79.0	0.0	1.1	1.2	0.1
C203	54.5	55.0	0.5	52.0	52.5	-0.6	101.3	101.9	0.6	86.8	86.8	0.0	9.4	10.6	1.2
C204	55.9	56.7	0.8	53.5	54.4	-0.6	102.9	103.7	0.8	91.4	91.4	0.0	10.8	12.9	2.1
C205	61.6	61.2	-0.4	58.5	58.2	-0.6	107.9	107.5	-0.4	87.1	87.1	0.0	36.1	33.9	-2.2
C206	62.0	61.7	-0.3	58.9	58.6	-0.6	108.3	108.0	-0.3	87.6	87.6	0.0	38.3	36.1	-2.2
C207	62.4	62.2	-0.2	59.1	58.9	-0.6	108.5	108.3	-0.2	87.5	87.5	0.0	37.0	35.1	-1.9
C208	62.0	61.8	-0.2	58.8	58.5	-0.6	108.1	107.9	-0.2	87.0	87.0	0.0	35.7	33.9	-1.8
C209	64.0	63.6	-0.4	60.9	60.5	-0.6	110.3	109.9	-0.4	90.2	90.2	0.0	48.1	44.8	-3.3
C210	64.4	64.1	-0.3	61.1	60.9	-0.6	110.5	110.3	-0.2	89.8	89.8	0.0	46.3	43.3	-3.0
C211	57.4	57.0	-0.4	55.1	54.6	-0.6	104.5	104.0	-0.5	89.3	89.3	0.0	19.8	17.7	-2.1
C212	57.4	57.0	-0.4	55.1	54.6	-0.6	104.4	104.0	-0.4	88.8	88.8	0.0	19.8	17.8	-2.0
C213	57.3	56.9	-0.4	55.0	54.5	-0.6	104.4	103.9	-0.5	90.5	90.5	0.0	19.2	17.1	-2.1
C214	63.0	64.1	1.1	59.6	60.8	-0.6	109.0	110.2	1.2	96.4	96.4	0.0	31.2	36.7	5.5
C215	57.5	58.5	1.0	54.9	55.9	-0.6	104.3	105.3	1.0	91.6	91.6	0.0	16.0	19.0	3.0
C216	62.4	62.8	0.5	59.3	59.7	-0.6	108.7	109.1	0.4	92.0	92.0	0.0	38.6	41.0	2.5
C217	54.2	54.9	1.6	51.3	52.0	-0.6	100.7	101.4	0.9	84.8	84.8	0.0	9.0	10.2	2.2
C218	58.4	58.7	-1.4	55.0	55.3	-0.6	104.4	104.6	-0.1	84.6	84.6	0.0	21.6	22.3	-1.4
C219	50.0	51.1	0.8	47.3	48.5	-0.6	96.7	97.8	1.1	83.2	83.2	0.0	3.1	4.3	1.2
C220	60.0	59.7	-0.3	57.1	56.8	-0.6	106.5	106.2	-0.3	89.5	90.3	0.8	24.2	22.4	-1.8
C221	55.0	54.7	-0.3	51.5	51.3	-0.6	100.9	100.7	-0.2	87.1	87.1	0.0	7.7	7.4	-0.3
C222	64.6	64.1	-0.5	61.9	61.3	-0.6	111.2	110.7	-0.5	92.9	92.9	0.0	54.9	49.3	-5.6
C223	55.6	55.4	-0.2	52.2	52.1	-0.6	101.6	101.5	-0.1	87.2	89.6	2.4	9.2	8.9	-0.3
C224	63.5	63.0	-0.5	60.6	60.1	-0.6	110.0	109.5	-0.5	90.7	90.7	0.0	46.6	42.0	-4.6
C225	60.4	59.9	-0.5	57.4	56.9	-0.6	106.8	106.3	-0.5	86.6	86.6	0.0	31.0	28.6	-2.4
C226	60.7	60.4	-0.3	57.7	57.4	-0.6	107.1	106.8	-0.3	86.5	86.5	0.0	32.0	30.5	-1.5
C230	47.3	47.9	0.6	44.3	44.9	-0.6	93.6	94.3	0.7	78.1	78.1	0.0	1.4	1.7	0.3
C231	60.2	60.0	-0.2	56.8	56.6	-0.6	106.2	106.0	-0.2	85.4	85.4	0.0	27.8	26.9	-0.9

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C232	63.4	64.5	1.1	61.4	62.5	-0.6	110.8	111.9	1.1	102.1	102.1	0.0	36.2	39.3	3.1
C233	64.7	65.1	0.1	61.7	61.9	-0.6	111.0	111.3	0.2	93.5	93.5	0.0	35.3	38.4	3.2
H1	49.4	48.8	-0.6	48.2	47.6	-0.6	97.6	97.0	-0.6	85.2	85.2	0.0	3.6	3.1	-0.5
H2	50.4	51.6	1.2	48.6	49.8	1.2	97.9	99.2	1.3	89.9	89.9	0.0	3.4	4.6	1.2
L1	47.6	47.8	0.2	44.7	44.9	-0.6	94.1	94.3	0.2	77.5	77.5	0.0	1.2	1.4	0.2
L2	58.2	57.8	-0.4	55.1	54.6	-0.6	104.4	104.0	-0.4	86.7	86.9	0.2	18.2	16.5	-1.7
L3	49.0	48.4	-0.6	47.9	47.3	-0.6	97.3	96.7	-0.6	85.2	85.2	0.0	2.7	2.3	-0.4
L4	55.5	55.0	-0.5	53.4	52.9	-0.6	102.8	102.3	-0.5	89.3	89.3	0.0	14.7	13.0	-1.7
L5	48.0	48.1	0.1	45.1	45.2	-0.6	94.5	94.6	0.1	81.8	81.8	0.0	1.0	1.2	0.2
S1	59.6	59.3	-0.3	56.5	56.3	-0.6	105.9	105.6	-0.3	85.6	85.6	0.0	26.9	25.9	-1.0
S2	50.9	50.2	-0.7	49.3	48.6	-0.6	98.7	98.0	-0.7	86.9	86.9	0.0	5.1	4.4	-0.7
S3	46.6	45.9	-0.7	45.4	44.7	-0.6	94.7	94.1	-0.6	84.8	84.8	0.0	1.6	1.4	-0.2
S4	64.8	64.5	-0.3	61.7	61.3	-0.6	111.1	110.7	-0.4	93.6	93.6	0.0	55.4	51.4	-4.0
S5	47.6	47.6	0.0	44.6	44.6	-0.6	93.9	93.9	0.0	80.1	80.1	0.0	1.1	1.2	0.1
S6	56.9	56.3	-0.6	54.7	54.2	-0.6	104.1	103.6	-0.5	88.3	88.3	0.0	18.3	16.1	-2.2
S7	51.2	52.2	1.0	48.9	49.9	-0.6	98.2	99.3	1.1	85.9	85.9	0.0	3.6	4.8	1.2
S8	57.8	57.4	-0.4	55.6	55.1	-0.6	105.0	104.5	-0.5	93.4	93.4	0.0	20.7	18.4	-2.3
S9	43.2	44.5	1.2	41.3	42.4	-0.6	90.7	91.8	1.1	80.8	80.8	0.0	0.7	0.9	0.2
S10	53.6	53.0	-0.6	51.8	51.2	-0.6	101.2	100.6	-0.6	86.0	86.0	0.0	8.8	7.7	-1.1
S11	50.6	49.9	-0.7	49.5	48.9	-0.6	98.8	98.2	-0.6	87.6	87.6	0.0	4.3	3.7	-0.6
S12	47.9	48.6	0.7	44.9	45.7	-0.6	94.3	95.0	0.7	79.9	79.9	0.0	1.6	1.9	0.3
S13	50.6	49.9	-0.7	49.1	48.4	-0.6	98.5	97.8	-0.7	88.1	88.1	0.0	4.6	4.0	-0.6
S14	47.4	46.8	-0.6	46.0	45.4	-0.6	95.3	94.7	-0.6	87.5	87.5	0.0	1.7	1.5	-0.2
S15	57.5	57.2	-0.3	54.3	54.0	-0.6	103.7	103.3	-0.4	86.5	86.7	0.2	15.7	14.4	-1.3
S16	55.4	55.3	-0.1	52.4	52.4	-0.6	101.7	101.7	0.0	89.0	90.2	1.2	8.9	8.8	-0.1
S17	43.6	43.5	-0.1	41.7	41.6	-0.6	91.1	91.0	-0.1	84.3	84.3	0.0	0.6	0.6	0.0
S18	44.3	45.5	1.2	42.4	43.4	-0.6	91.7	92.8	1.1	81.5	81.5	0.0	1.1	1.4	0.3
S19	50.9	50.2	-0.7	49.5	48.8	-0.6	98.8	98.2	-0.6	85.8	85.8	0.0	5.2	4.5	-0.7
S20	63.2	62.8	-0.4	60.5	60.1	-0.6	109.9	109.4	-0.5	91.4	91.4	0.0	42.0	39.1	-2.9
S22	50.8	50.1	-0.7	49.3	48.6	-0.6	98.7	98.0	-0.7	88.5	88.5	0.0	4.8	4.1	-0.7
S23	52.7	52.0	-0.7	51.1	50.5	-0.6	100.4	99.9	-0.5	88.0	88.0	0.0	6.8	5.9	-0.9
S24	52.7	52.4	-0.3	49.0	48.8	-0.6	98.4	98.2	-0.2	84.7	84.7	0.0	5.0	4.8	-0.2

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S25	52.2	52.1	-0.1	48.6	48.6	-0.6	98.0	97.9	-0.1	82.2	85.3	3.1	4.5	4.3	-0.2
S26	49.8	49.3	-0.5	47.6	47.1	-0.6	96.9	96.5	-0.4	85.4	85.4	0.0	4.2	3.7	-0.5
S27	58.9	58.6	-0.3	55.8	55.4	-0.6	105.1	104.8	-0.3	85.3	85.3	0.0	25.4	24.4	-1.0
S28	59.1	58.6	-0.5	55.8	55.4	-0.6	105.2	104.8	-0.4	86.2	86.2	0.0	24.5	23.1	-1.4
S29	54.8	54.7	-0.1	51.6	51.5	-0.6	100.9	100.9	0.0	86.0	86.7	0.7	8.7	8.4	-0.3
S30	49.0	49.4	0.4	46.2	46.7	-0.6	95.5	96.1	0.6	78.7	78.7	0.0	1.4	1.8	0.4
S31	47.2	47.1	-0.1	44.2	44.1	-0.6	93.5	93.5	0.0	81.1	81.1	0.0	1.0	1.1	0.1
S32	48.9	49.4	0.5	46.1	46.7	-0.6	95.5	96.0	0.5	78.8	78.8	0.0	1.4	1.8	0.4
S33	47.6	48.1	0.5	44.8	45.4	-0.6	94.2	94.7	0.5	76.7	76.7	0.0	1.4	1.7	0.3
S34	53.7	53.1	-0.6	51.8	51.2	-0.6	101.2	100.6	-0.6	86.0	86.0	0.0	9.5	8.3	-1.2
S35	44.2	44.2	0.0	42.2	42.1	-0.6	91.5	91.5	0.0	85.0	85.0	0.0	0.6	0.5	-0.1
S36	62.3	61.9	-0.4	59.5	59.1	-0.6	108.8	108.4	-0.4	89.5	89.5	0.0	38.8	36.3	-2.5
S37	47.3	47.3	0.0	44.5	44.6	-0.6	93.9	93.9	0.0	82.3	82.3	0.0	0.8	1.0	0.2
S38	59.1	58.8	-0.3	55.8	55.5	-0.6	105.2	104.9	-0.3	85.5	85.5	0.0	25.5	24.6	-0.9
S39	54.1	54.0	-0.1	51.1	51.1	-0.6	100.5	100.4	-0.1	78.6	78.6	0.0	7.8	7.7	-0.1
S40	50.1	49.5	-0.6	48.9	48.3	-0.6	98.3	97.7	-0.6	87.3	87.3	0.0	4.3	3.7	-0.6
S41	48.1	47.4	-0.7	47.1	46.4	-0.6	96.4	95.8	-0.6	85.8	85.8	0.0	2.8	2.4	-0.4
S42	51.3	50.6	-0.7	49.9	49.3	-0.6	99.3	98.7	-0.6	88.0	88.0	0.0	4.9	4.3	-0.6
S43	50.9	50.2	-0.7	49.4	48.8	-0.6	98.8	98.2	-0.6	88.5	88.5	0.0	4.9	4.2	-0.7
S44	44.4	44.0	-0.4	42.9	42.5	-0.6	92.3	91.9	-0.4	84.5	84.5	0.0	1.0	0.9	-0.1
S45	48.2	47.6	-0.6	47.2	46.6	-0.6	96.6	95.9	-0.7	86.1	86.1	0.0	2.9	2.5	-0.4
S46	44.2	44.0	-0.2	42.2	42.1	-0.6	91.6	91.4	-0.2	85.8	85.8	0.0	0.6	0.6	0.0
S47	57.2	56.8	-0.4	54.4	54.0	-0.6	103.8	103.4	-0.4	84.3	84.3	0.0	18.5	17.3	-1.2
S48	48.7	48.1	-0.6	47.6	47.0	-0.6	97.0	96.3	-0.7	86.6	86.6	0.0	3.3	2.8	-0.5
S49	46.2	45.9	-0.3	44.0	43.7	-0.6	93.4	93.1	-0.3	83.0	83.0	0.0	1.0	0.9	-0.1
S50	44.5	44.2	-0.3	43.0	42.6	-0.6	92.3	91.9	-0.4	86.1	86.1	0.0	1.1	1.0	-0.1
S51	49.7	49.1	-0.6	48.3	47.7	-0.6	97.7	97.1	-0.6	88.0	88.0	0.0	3.5	3.0	-0.5
S52	57.4	57.3	-0.1	54.3	54.3	-0.6	103.7	103.6	-0.1	88.0	88.9	0.9	13.6	13.2	-0.4
S53	48.8	48.2	-0.6	47.8	47.1	-0.6	97.1	96.5	-0.6	85.8	85.8	0.0	2.8	2.4	-0.4
S54	59.5	59.0	-0.5	57.1	56.6	-0.6	106.4	106.0	-0.4	90.0	90.0	0.0	26.8	24.2	-2.6
S55	46.8	46.7	-0.1	44.2	44.1	-0.6	93.6	93.5	-0.1	82.7	82.7	0.0	0.5	0.5	0.0
S56	61.1	60.7	-0.4	57.9	57.4	-0.6	107.3	106.8	-0.5	88.6	88.6	0.0	34.4	32.3	-2.1

Table I-4, *Continued*
NOISE-SENSITIVE FACILITIES GRID POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S57	48.9	48.2	-0.7	47.8	47.1	-0.6	97.2	96.5	-0.7	84.5	84.5	0.0	3.5	3.0	-0.5
S58	50.5	49.8	-0.7	49.4	48.8	-0.6	98.8	98.2	-0.6	87.4	87.4	0.0	4.4	3.8	-0.6
S59	46.7	46.2	-0.5	45.3	44.7	-0.6	94.6	94.1	-0.5	86.5	86.5	0.0	1.5	1.3	-0.2
S60	50.6	49.9	-0.7	49.5	48.9	-0.6	98.9	98.2	-0.7	87.4	87.4	0.0	4.5	3.8	-0.7
S61	49.9	49.2	-0.7	48.9	48.3	-0.6	98.3	97.7	-0.6	86.8	86.8	0.0	3.9	3.4	-0.5
S62	54.3	54.1	-0.2	50.9	50.7	-0.6	100.2	100.1	-0.1	85.0	85.1	0.1	7.7	7.3	-0.4
S63	49.2	48.5	-0.7	48.0	47.3	-0.6	97.3	96.7	-0.6	86.9	86.9	0.0	3.9	3.4	-0.5
S64	49.0	48.6	-0.4	46.6	46.3	-0.6	96.0	95.6	-0.4	85.3	85.3	0.0	3.4	3.0	-0.4
S65	63.8	63.5	-0.3	60.7	60.4	-0.6	110.0	109.8	-0.2	89.5	89.5	0.0	43.7	41.1	-2.6
S66	45.6	45.2	-0.4	44.2	43.7	-0.6	93.6	93.1	-0.5	85.4	85.4	0.0	1.3	1.1	-0.2
S67	45.5	45.0	-0.5	44.1	43.6	-0.6	93.5	93.0	-0.5	85.5	85.5	0.0	1.3	1.1	-0.2
S68	44.4	44.2	-0.2	42.8	42.5	-0.6	92.2	91.9	-0.3	87.2	87.2	0.0	0.8	0.7	-0.1
S69	60.8	60.5	-0.3	58.1	57.8	-0.6	107.5	107.2	-0.3	91.7	92.9	1.2	27.6	25.6	-2.0
S70	46.4	46.0	-0.4	44.6	44.2	-0.6	94.0	93.5	-0.5	85.2	85.2	0.0	1.0	0.9	-0.1
S71	47.9	48.2	0.3	45.0	45.5	-0.6	94.4	94.8	0.4	76.1	76.1	0.0	1.3	1.5	0.2
S72	64.8	64.5	-0.3	62.4	62.0	-0.6	111.7	111.4	-0.3	96.6	99.1	2.5	45.4	41.5	-3.9
S73	54.1	54.9	-0.3	50.9	51.7	-0.6	100.3	101.0	0.5	84.5	84.5	0.0	10.7	11.8	0.2
S74	60.5	60.2	-0.3	57.7	57.3	-0.6	107.1	106.7	-0.4	90.0	91.1	1.1	27.0	24.8	-2.2
S75	60.8	60.5	-0.3	57.4	57.1	-0.6	106.8	106.5	-0.3	86.6	86.6	0.0	33.6	32.1	-1.5

Source: Landrum & Brown, 2007.

Table I-5
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
A1	39.0	38.8	-0.2	34.6	33.8	-0.8	84.0	83.2	-0.8	70.4	70.4	0.0	0.3	0.2	-0.1
A2	38.6	38.5	-0.1	34.4	33.7	-0.7	83.8	83.1	-0.7	71.6	71.6	0.0	0.3	0.2	-0.1
A3	38.5	38.5	0.0	34.5	33.9	-0.6	83.9	83.3	-0.6	71.0	71.0	0.0	0.2	0.1	-0.1
A4	38.4	38.7	0.3	34.5	34.2	-0.3	83.8	83.6	-0.2	71.8	71.8	0.0	0.2	0.1	-0.1
A5	38.3	38.9	0.6	34.3	34.4	0.1	83.7	83.8	0.1	71.5	71.5	0.0	0.1	0.1	0.0
A6	38.2	39.2	1.0	34.0	34.6	0.6	83.3	83.9	0.6	68.6	68.6	0.0	0.1	0.1	0.0
A7	38.6	39.9	1.3	34.4	35.2	0.8	83.8	84.6	0.8	69.1	70.3	1.2	0.1	0.0	-0.1
A8	39.6	40.9	1.3	35.8	36.4	0.6	85.1	85.7	0.6	72.4	72.8	0.4	0.1	0.1	0.0
A9	40.9	42.2	1.3	37.4	37.8	0.4	86.8	87.2	0.4	72.2	72.0	-0.2	0.3	0.2	-0.1
A10	42.6	43.8	1.2	39.2	39.3	0.1	88.6	88.7	0.1	72.9	72.8	-0.1	0.5	0.3	-0.2
A11	43.9	44.8	0.9	40.4	40.4	0.0	89.8	89.7	-0.1	72.9	72.9	0.0	0.8	0.5	-0.3
A12	44.1	44.8	0.7	40.6	40.3	-0.3	90.0	89.7	-0.3	72.7	72.9	0.2	0.9	0.5	-0.4
A13	43.0	43.7	0.7	39.7	39.4	-0.3	89.1	88.8	-0.3	72.7	72.6	-0.1	0.6	0.3	-0.3
A14	41.5	42.2	0.7	38.3	38.1	-0.2	87.7	87.5	-0.2	72.6	72.6	0.0	0.4	0.2	-0.2
A15	39.8	40.7	0.9	36.7	36.7	0.0	86.1	86.0	-0.1	72.4	72.1	-0.3	0.2	0.1	-0.1
A16	38.3	39.3	1.0	35.2	35.2	0.0	84.6	84.6	0.0	71.3	71.2	-0.1	0.2	0.1	-0.1
A17	37.1	38.1	1.0	34.0	33.9	-0.1	83.3	83.3	0.0	72.2	72.2	0.0	0.1	0.1	0.0
A18	35.8	36.6	0.8	32.5	32.3	-0.2	81.9	81.7	-0.2	71.0	70.3	-0.7	0.1	0.0	-0.1
A19	34.0	34.8	0.8	30.5	30.5	0.0	79.9	79.9	0.0	67.0	65.8	-1.2	0.0	0.0	0.0
A20	32.4	33.4	1.0	28.8	28.9	0.1	78.2	78.3	0.1	62.6	62.2	-0.4	0.0	0.0	0.0
A21	31.5	32.7	1.2	27.4	27.8	0.4	76.8	77.2	0.4	61.3	60.8	-0.5	0.0	0.0	0.0
A22	31.4	32.7	1.3	26.7	27.3	0.6	76.1	76.7	0.6	61.0	59.5	-1.5	0.0	0.0	0.0
A23	31.9	33.1	1.2	26.7	27.4	0.7	76.1	76.8	0.7	59.6	59.2	-0.4	0.0	0.0	0.0
B1	39.5	39.6	0.1	35.1	34.5	-0.6	84.5	83.9	-0.6	71.8	71.8	0.0	0.3	0.2	-0.1
B2	39.8	39.8	0.0	35.4	34.8	-0.6	84.8	84.2	-0.6	71.4	71.4	0.0	0.3	0.2	-0.1
B3	39.4	39.4	0.0	35.2	34.7	-0.5	84.5	84.1	-0.4	72.3	72.3	0.0	0.3	0.2	-0.1
B4	39.0	39.2	0.2	35.1	34.8	-0.3	84.5	84.1	-0.4	71.4	71.4	0.0	0.3	0.2	-0.1
B5	38.7	39.1	0.4	35.0	34.8	-0.2	84.4	84.2	-0.2	72.7	72.7	0.0	0.2	0.2	0.0
B6	38.6	39.4	0.8	34.8	35.2	0.4	84.2	84.5	0.3	71.4	71.4	0.0	0.2	0.1	-0.1
B7	38.9	40.3	1.4	35.0	35.9	0.9	84.4	85.2	0.8	69.4	70.1	0.7	0.1	0.1	0.0
B8	40.2	41.6	1.4	36.4	37.1	0.7	85.8	86.5	0.7	72.8	73.3	0.5	0.1	0.1	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
B9	41.8	43.1	1.3	38.1	38.5	0.4	87.5	87.9	0.4	73.0	72.5	-0.5	0.3	0.2	-0.1
B10	43.4	44.6	1.2	39.8	40.0	0.2	89.2	89.4	0.2	73.6	73.5	-0.1	0.6	0.4	-0.2
B11	44.7	45.6	0.9	41.1	41.1	0.0	90.5	90.4	-0.1	73.5	73.5	0.0	0.9	0.5	-0.4
B12	44.7	45.3	0.6	41.3	40.9	-0.4	90.6	90.3	-0.3	73.4	73.5	0.1	0.9	0.5	-0.4
B13	43.4	44.1	0.7	40.2	39.9	-0.3	89.6	89.3	-0.3	73.4	73.1	-0.3	0.7	0.4	-0.3
B14	41.6	42.5	0.9	38.6	38.5	-0.1	88.0	87.8	-0.2	73.3	73.2	-0.1	0.4	0.2	-0.2
B15	39.8	40.9	1.1	36.9	37.0	0.1	86.3	86.3	0.0	72.8	72.3	-0.5	0.2	0.1	-0.1
B16	38.4	39.7	1.3	35.5	35.6	0.1	84.9	85.0	0.1	72.4	72.5	0.1	0.2	0.1	-0.1
B17	37.3	38.4	1.1	34.2	34.2	0.0	83.6	83.6	0.0	72.8	72.5	-0.3	0.1	0.1	0.0
B18	35.9	36.9	1.0	32.6	32.6	0.0	82.0	82.0	0.0	70.5	69.3	-1.2	0.1	0.0	-0.1
B19	34.7	35.8	1.1	30.9	31.2	0.3	80.3	80.5	0.2	67.1	66.9	-0.2	0.0	0.0	0.0
B20	33.9	35.1	1.2	29.7	30.2	0.5	79.1	79.5	0.4	65.8	65.6	-0.2	0.0	0.0	0.0
B21	33.7	35.1	1.4	29.0	29.6	0.6	78.4	79.0	0.6	64.3	64.1	-0.2	0.0	0.0	0.0
B22	34.0	35.4	1.4	28.8	29.6	0.8	78.2	78.9	0.7	62.8	62.5	-0.3	0.0	0.0	0.0
B23	34.3	35.6	1.3	28.8	29.6	0.8	78.1	78.9	0.8	63.6	63.6	0.0	0.0	0.0	0.0
C1	39.1	39.2	0.1	34.9	34.4	-0.5	84.3	83.8	-0.5	72.4	72.4	0.0	0.3	0.2	-0.1
C2	40.1	40.3	0.2	35.9	35.4	-0.5	85.2	84.8	-0.4	72.2	72.2	0.0	0.3	0.2	-0.1
C3	40.4	40.6	0.2	36.0	35.7	-0.3	85.4	85.1	-0.3	72.7	72.7	0.0	0.3	0.2	-0.1
C4	40.2	40.4	0.2	36.0	35.8	-0.2	85.4	85.2	-0.2	72.7	72.7	0.0	0.3	0.2	-0.1
C5	39.9	40.1	0.2	36.0	35.8	-0.2	85.3	85.2	-0.1	72.9	72.9	0.0	0.3	0.2	-0.1
C6	39.5	40.1	0.6	35.9	36.0	0.1	85.2	85.4	0.2	73.3	73.3	0.0	0.2	0.2	0.0
C7	39.4	40.6	1.2	35.9	36.5	0.6	85.3	85.9	0.6	71.1	71.1	0.0	0.2	0.2	0.0
C8	40.5	42.0	1.5	37.0	37.8	0.8	86.4	87.1	0.7	73.2	73.8	0.6	0.2	0.2	0.0
C9	42.3	43.7	1.4	38.7	39.3	0.6	88.1	88.6	0.5	73.9	73.5	-0.4	0.4	0.3	-0.1
C10	44.2	45.4	1.2	40.6	40.8	0.2	89.9	90.2	0.3	74.3	74.2	-0.1	0.7	0.4	-0.3
C11	45.6	46.4	0.8	41.9	41.8	-0.1	91.3	91.2	-0.1	74.3	74.2	-0.1	1.0	0.6	-0.4
C12	45.3	45.9	0.6	41.9	41.6	-0.3	91.3	90.9	-0.4	74.2	74.3	0.1	1.0	0.6	-0.4
C13	43.8	44.5	0.7	40.8	40.5	-0.3	90.1	89.8	-0.3	74.0	73.7	-0.3	0.8	0.4	-0.4
C14	41.9	42.9	1.0	39.0	38.9	-0.1	88.4	88.3	-0.1	73.9	74.1	0.2	0.4	0.2	-0.2
C15	40.1	41.4	1.3	37.4	37.4	0.0	86.7	86.8	0.1	73.4	72.3	-1.1	0.2	0.2	0.0
C16	38.9	40.2	1.3	36.0	36.1	0.1	85.4	85.4	0.0	73.3	73.7	0.4	0.2	0.1	-0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C17	37.8	38.9	1.1	34.6	34.6	0.0	83.9	84.0	0.1	73.1	72.5	-0.6	0.1	0.1	0.0
C18	36.7	37.9	1.2	32.9	33.2	0.3	82.3	82.6	0.3	69.5	69.4	-0.1	0.1	0.1	0.0
C19	36.2	37.4	1.2	31.7	32.3	0.6	81.1	81.7	0.6	68.7	68.5	-0.2	0.0	0.0	0.0
C20	36.2	37.3	1.1	31.2	31.8	0.6	80.5	81.1	0.6	67.8	67.6	-0.2	0.0	0.0	0.0
C21	35.9	36.9	1.0	30.5	31.1	0.6	79.9	80.5	0.6	66.6	66.4	-0.2	0.0	0.0	0.0
C22	35.1	36.1	1.0	29.6	30.2	0.6	79.0	79.6	0.6	65.3	64.9	-0.4	0.0	0.0	0.0
C23	34.0	35.0	1.0	28.6	29.2	0.6	78.0	78.5	0.5	63.2	63.2	0.0	0.0	0.0	0.0
D1	38.5	38.6	0.1	34.6	34.2	-0.4	84.0	83.6	-0.4	72.0	72.0	0.0	0.2	0.1	-0.1
D2	39.8	40.0	0.2	36.0	35.6	-0.4	85.3	84.9	-0.4	73.5	73.5	0.0	0.3	0.2	-0.1
D3	40.5	40.8	0.3	36.6	36.3	-0.3	85.9	85.7	-0.2	72.1	72.1	0.0	0.4	0.2	-0.2
D4	40.9	41.3	0.4	36.8	36.8	0.0	86.1	86.1	0.0	73.9	73.9	0.0	0.4	0.3	-0.1
D5	41.3	41.7	0.4	37.2	37.2	0.0	86.5	86.6	0.1	72.8	72.8	0.0	0.3	0.2	-0.1
D6	41.2	41.7	0.5	37.3	37.4	0.1	86.6	86.8	0.2	74.3	74.3	0.0	0.3	0.2	-0.1
D7	40.9	41.7	0.8	37.3	37.7	0.4	86.7	87.1	0.4	73.5	73.5	0.0	0.3	0.2	-0.1
D8	41.2	42.5	1.3	37.8	38.5	0.7	87.2	87.9	0.7	73.4	74.3	0.9	0.3	0.2	-0.1
D9	42.7	44.2	1.5	39.4	40.0	0.6	88.8	89.4	0.6	74.8	74.4	-0.4	0.4	0.3	-0.1
D10	44.8	46.2	1.4	41.3	41.6	0.3	90.6	91.0	0.4	74.9	74.9	0.0	0.8	0.5	-0.3
D11	46.5	47.3	0.8	42.8	42.7	-0.1	92.1	92.0	-0.1	75.1	75.1	0.0	1.2	0.8	-0.4
D12	46.1	46.7	0.6	42.7	42.4	-0.3	92.0	91.7	-0.3	75.1	75.0	-0.1	1.1	0.8	-0.3
D13	44.4	45.2	0.8	41.4	41.1	-0.3	90.7	90.5	-0.2	74.6	74.8	0.2	0.8	0.5	-0.3
D14	42.4	43.5	1.1	39.5	39.5	0.0	88.9	88.8	-0.1	74.8	74.9	0.1	0.5	0.3	-0.2
D15	40.9	42.1	1.2	37.9	38.0	0.1	87.3	87.4	0.1	74.3	73.0	-1.3	0.3	0.2	-0.1
D16	40.1	41.2	1.1	36.7	36.8	0.1	86.1	86.2	0.1	74.5	74.6	0.1	0.2	0.1	-0.1
D17	39.3	40.3	1.0	35.4	35.6	0.2	84.7	84.9	0.2	73.0	71.9	-1.1	0.1	0.1	0.0
D18	38.4	39.4	1.0	33.9	34.4	0.5	83.3	83.7	0.4	71.1	71.1	0.0	0.1	0.1	0.0
D19	37.6	38.5	0.9	32.8	33.3	0.5	82.1	82.7	0.6	70.1	70.1	0.0	0.0	0.0	0.0
D20	36.6	37.4	0.8	31.6	32.1	0.5	81.0	81.5	0.5	69.0	69.0	0.0	0.0	0.0	0.0
D21	35.1	35.9	0.8	30.2	30.6	0.4	79.6	80.0	0.4	67.9	67.9	0.0	0.0	0.0	0.0
D22	33.3	34.2	0.9	28.6	29.0	0.4	78.0	78.4	0.4	66.7	66.7	0.0	0.0	0.0	0.0
D23	31.9	32.8	0.9	27.3	27.8	0.5	76.6	77.1	0.5	65.5	65.5	0.0	0.0	0.0	0.0
E1	37.3	37.6	0.3	33.8	33.8	0.0	83.2	83.2	0.0	71.6	72.3	0.7	0.2	0.1	-0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
E2	39.6	39.7	0.1	36.0	35.8	-0.2	85.4	85.1	-0.3	73.7	74.3	0.6	0.3	0.2	-0.1
E3	40.7	40.9	0.2	37.2	36.9	-0.3	86.5	86.3	-0.2	74.8	75.2	0.4	0.4	0.3	-0.1
E4	41.1	41.4	0.3	37.5	37.5	0.0	86.9	86.8	-0.1	75.6	76.0	0.4	0.4	0.3	-0.1
E5	41.6	42.1	0.5	37.9	38.0	0.1	87.2	87.4	0.2	76.4	76.9	0.5	0.5	0.4	-0.1
E6	42.3	43.0	0.7	38.4	38.7	0.3	87.8	88.1	0.3	76.7	76.7	0.0	0.4	0.4	0.0
E7	42.6	43.5	0.9	38.8	39.2	0.4	88.2	88.6	0.4	77.9	77.9	0.0	0.4	0.4	0.0
E8	42.6	43.8	1.2	39.1	39.7	0.6	88.5	89.1	0.6	77.2	77.2	0.0	0.4	0.4	0.0
E9	43.4	44.9	1.5	40.1	40.8	0.7	89.5	90.2	0.7	75.8	75.7	-0.1	0.6	0.5	-0.1
E10	45.5	46.9	1.4	42.1	42.5	0.4	91.4	91.9	0.5	75.9	76.0	0.1	1.0	0.7	-0.3
E11	47.4	48.2	0.8	43.6	43.6	0.0	93.0	93.0	0.0	76.0	75.9	-0.1	1.6	1.2	-0.4
E12	46.9	47.5	0.6	43.5	43.3	-0.2	92.8	92.6	-0.2	76.0	75.9	-0.1	1.3	1.0	-0.3
E13	45.1	46.0	0.9	42.0	41.9	-0.1	91.4	91.3	-0.1	75.5	75.9	0.4	0.9	0.6	-0.3
E14	43.3	44.4	1.1	40.2	40.2	0.0	89.5	89.6	0.1	75.7	75.5	-0.2	0.6	0.4	-0.2
E15	42.3	43.4	1.1	38.8	39.0	0.2	88.2	88.4	0.2	75.0	74.7	-0.3	0.3	0.3	0.0
E16	41.4	42.3	0.9	37.6	37.7	0.1	87.0	87.1	0.1	75.3	74.9	-0.4	0.2	0.2	0.0
E17	39.9	40.7	0.8	35.9	36.2	0.3	85.3	85.6	0.3	72.3	72.5	0.2	0.2	0.2	0.0
E18	38.1	39.0	0.9	34.1	34.5	0.4	83.4	83.9	0.5	71.8	71.9	0.1	0.1	0.1	0.0
E19	36.4	37.4	1.0	32.4	33.0	0.6	81.8	82.3	0.5	70.9	70.9	0.0	0.0	0.1	0.1
E20	34.9	35.9	1.0	31.0	31.6	0.6	80.4	80.9	0.5	70.0	70.0	0.0	0.0	0.0	0.0
E21	33.7	34.6	0.9	29.8	30.3	0.5	79.2	79.6	0.4	69.2	69.2	0.0	0.0	0.0	0.0
E22	32.4	33.2	0.8	28.6	29.0	0.4	77.9	78.4	0.5	68.4	68.4	0.0	0.0	0.0	0.0
E23	31.3	32.1	0.8	27.4	27.9	0.5	76.8	77.3	0.5	67.6	67.7	0.1	0.0	0.0	0.0
F1	36.1	36.7	0.6	33.3	33.9	0.6	82.7	83.3	0.6	74.4	75.1	0.7	0.2	0.1	-0.1
F2	38.8	39.1	0.3	35.8	36.0	0.2	85.2	85.3	0.1	76.7	77.2	0.5	0.3	0.2	-0.1
F3	40.8	41.0	0.2	37.7	37.6	-0.1	87.0	86.9	-0.1	77.8	78.2	0.4	0.4	0.3	-0.1
F4	41.5	41.7	0.2	38.4	38.4	0.0	87.8	87.7	-0.1	78.7	79.0	0.3	0.5	0.4	-0.1
F5	41.8	42.3	0.5	38.7	38.9	0.2	88.1	88.3	0.2	79.6	80.0	0.4	0.6	0.5	-0.1
F6	42.4	43.2	0.8	39.3	39.7	0.4	88.7	89.1	0.4	80.3	80.5	0.2	0.5	0.5	0.0
F7	43.3	44.4	1.1	40.0	40.6	0.6	89.4	90.0	0.6	81.3	81.3	0.0	0.6	0.5	-0.1
F8	44.3	45.6	1.3	40.8	41.5	0.7	90.2	90.8	0.6	81.3	81.3	0.0	0.6	0.7	0.1
F9	44.9	46.2	1.3	41.5	42.1	0.6	90.8	91.5	0.7	80.5	80.5	0.0	0.8	0.7	-0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
F10	46.4	47.8	1.4	43.0	43.5	0.5	92.3	92.9	0.6	78.9	78.9	0.0	1.2	1.1	-0.1
F11	48.2	49.0	0.8	44.5	44.6	0.1	93.9	94.0	0.1	77.1	77.1	0.0	2.1	1.8	-0.3
F12	47.8	48.5	0.7	44.3	44.3	0.0	93.7	93.7	0.0	76.7	76.8	0.1	1.7	1.6	-0.1
F13	46.0	47.0	1.0	42.8	42.8	0.0	92.1	92.2	0.1	76.5	76.7	0.2	1.1	1.0	-0.1
F14	44.4	45.4	1.0	41.0	41.2	0.2	90.4	90.6	0.2	76.4	75.9	-0.5	0.7	0.6	-0.1
F15	42.8	43.8	1.0	39.5	39.8	0.3	88.9	89.2	0.3	75.6	76.2	0.6	0.4	0.4	0.0
F16	41.1	42.1	1.0	37.9	38.2	0.3	87.3	87.6	0.3	75.5	74.6	-0.9	0.3	0.3	0.0
F17	39.0	40.2	1.2	35.9	36.5	0.6	85.2	85.9	0.7	73.8	73.6	-0.2	0.2	0.2	0.0
F18	37.2	38.4	1.2	34.1	34.8	0.7	83.4	84.2	0.8	73.1	73.0	-0.1	0.1	0.2	0.1
F19	35.6	36.9	1.3	32.6	33.4	0.8	81.9	82.8	0.9	72.6	72.4	-0.2	0.1	0.1	0.0
F20	34.5	35.7	1.2	31.4	32.2	0.8	80.8	81.6	0.8	71.9	71.8	-0.1	0.1	0.1	0.0
F21	33.7	34.7	1.0	30.5	31.2	0.7	79.9	80.5	0.6	71.3	71.2	-0.1	0.0	0.0	0.0
F22	32.8	33.7	0.9	29.5	30.1	0.6	78.9	79.5	0.6	70.6	70.5	-0.1	0.0	0.0	0.0
F23	31.8	32.8	1.0	28.5	29.0	0.5	77.8	78.4	0.6	70.0	69.9	-0.1	0.0	0.0	0.0
G1	35.8	36.7	0.9	33.7	34.7	1.0	83.1	84.0	0.9	76.4	76.8	0.4	0.1	0.1	0.0
G2	38.1	38.7	0.6	35.7	36.3	0.6	85.1	85.7	0.6	77.7	78.0	0.3	0.3	0.3	0.0
G3	40.6	40.9	0.3	37.9	38.1	0.2	87.3	87.4	0.1	78.5	78.7	0.2	0.4	0.4	0.0
G4	42.0	42.3	0.3	39.2	39.3	0.1	88.6	88.7	0.1	79.2	79.3	0.1	0.6	0.5	-0.1
G5	42.4	43.0	0.6	39.7	40.0	0.3	89.1	89.4	0.3	79.9	80.0	0.1	0.7	0.6	-0.1
G6	43.0	43.7	0.7	40.3	40.8	0.5	89.7	90.2	0.5	81.0	81.2	0.2	0.7	0.7	0.0
G7	43.7	44.8	1.1	41.0	41.7	0.7	90.4	91.1	0.7	82.0	82.2	0.2	0.7	0.7	0.0
G8	44.9	46.2	1.3	42.0	42.7	0.7	91.3	92.1	0.8	82.7	82.9	0.2	0.8	0.9	0.1
G9	46.3	47.8	1.5	43.0	43.8	0.8	92.4	93.2	0.8	83.2	83.2	0.0	1.1	1.5	0.4
G10	47.7	49.0	1.3	44.2	44.8	0.6	93.5	94.2	0.7	83.3	83.3	0.0	1.6	1.6	0.0
G11	49.3	50.1	0.8	45.6	45.7	0.1	95.0	95.1	0.1	81.4	81.4	0.0	2.7	2.6	-0.1
G12	48.8	49.6	0.8	45.3	45.4	0.1	94.7	94.8	0.1	77.6	77.7	0.1	2.3	2.3	0.0
G13	46.9	47.7	0.8	43.6	43.8	0.2	93.0	93.1	0.1	77.5	77.4	-0.1	1.5	1.3	-0.2
G14	44.6	45.7	1.1	41.6	42.0	0.4	91.0	91.4	0.4	76.8	76.8	0.0	0.8	0.8	0.0
G15	42.8	44.0	1.2	40.0	40.5	0.5	89.4	89.9	0.5	77.1	77.2	0.1	0.5	0.6	0.1
G16	41.0	42.2	1.2	38.3	38.9	0.6	87.6	88.3	0.7	75.0	74.9	-0.1	0.4	0.4	0.0
G17	39.0	40.5	1.5	36.4	37.3	0.9	85.8	86.7	0.9	73.9	73.9	0.0	0.3	0.3	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
G18	37.5	39.0	1.5	34.9	36.0	1.1	84.3	85.4	1.1	73.0	73.0	0.0	0.2	0.2	0.0
G19	36.3	37.8	1.5	33.7	34.8	1.1	83.0	84.2	1.2	72.2	72.2	0.0	0.1	0.2	0.1
G20	35.4	36.8	1.4	32.6	33.8	1.2	82.0	83.1	1.1	71.3	71.3	0.0	0.1	0.2	0.1
G21	34.6	36.0	1.4	31.8	32.8	1.0	81.1	82.2	1.1	70.3	70.3	0.0	0.1	0.1	0.0
G22	33.8	35.0	1.2	30.8	31.7	0.9	80.2	81.1	0.9	69.3	69.3	0.0	0.1	0.1	0.0
G23	32.9	34.1	1.2	29.8	30.6	0.8	79.1	80.0	0.9	68.8	68.6	-0.2	0.0	0.0	0.0
H1	36.1	37.2	1.1	34.4	35.6	1.2	83.8	84.9	1.1	76.9	77.0	0.1	0.2	0.2	0.0
H2	37.8	38.8	1.0	35.9	36.9	1.0	85.3	86.3	1.0	77.3	77.2	-0.1	0.3	0.3	0.0
H3	40.1	40.8	0.7	37.8	38.5	0.7	87.1	87.9	0.8	78.0	78.0	0.0	0.5	0.5	0.0
H4	42.5	43.2	0.7	39.8	40.3	0.5	89.2	89.6	0.4	79.1	79.1	0.0	0.6	0.6	0.0
H5	43.6	44.4	0.8	40.9	41.4	0.5	90.2	90.8	0.6	80.5	80.5	0.0	0.8	0.8	0.0
H6	43.9	45.0	1.1	41.3	42.1	0.8	90.7	91.5	0.8	81.6	81.6	0.0	0.9	1.0	0.1
H7	44.6	45.8	1.2	42.1	43.0	0.9	91.4	92.4	1.0	82.6	82.6	0.0	1.0	1.2	0.2
H8	45.5	47.0	1.5	43.0	44.0	1.0	92.4	93.3	0.9	83.2	83.2	0.0	1.1	1.4	0.3
H9	47.0	48.6	1.6	44.2	45.1	0.9	93.6	94.5	0.9	83.6	83.9	0.3	1.4	1.6	0.2
H10	48.9	50.5	1.6	45.5	46.4	0.9	94.9	95.8	0.9	84.1	84.1	0.0	2.1	2.9	0.8
H11	50.7	51.5	0.8	46.9	47.2	0.3	96.3	96.6	0.3	84.6	84.6	0.0	3.8	4.1	0.3
H12	50.0	50.7	0.7	46.5	46.6	0.1	95.9	96.0	0.1	81.7	81.7	0.0	3.1	3.3	0.2
H13	47.4	48.3	0.9	44.4	44.7	0.3	93.8	94.1	0.3	78.4	78.4	0.0	1.9	1.8	-0.1
H14	44.9	46.2	1.3	42.3	42.8	0.5	91.7	92.2	0.5	77.4	77.4	0.0	1.1	1.1	0.0
H15	43.3	44.5	1.2	40.7	41.3	0.6	90.1	90.6	0.5	77.9	77.4	-0.5	0.7	0.7	0.0
H16	41.5	42.9	1.4	38.9	39.7	0.8	88.3	89.1	0.8	76.1	76.1	0.0	0.5	0.6	0.1
H17	40.0	41.5	1.5	37.5	38.4	0.9	86.8	87.8	1.0	75.0	75.0	0.0	0.4	0.5	0.1
H18	38.8	40.4	1.6	36.3	37.4	1.1	85.6	86.7	1.1	73.8	73.8	0.0	0.3	0.4	0.1
H19	37.8	39.3	1.5	35.2	36.3	1.1	84.6	85.7	1.1	72.4	72.4	0.0	0.2	0.3	0.1
H20	36.9	38.4	1.5	34.2	35.4	1.2	83.6	84.7	1.1	70.9	70.9	0.0	0.2	0.3	0.1
H21	36.1	37.5	1.4	33.4	34.5	1.1	82.8	83.9	1.1	70.5	70.5	0.0	0.2	0.2	0.0
H22	35.4	36.7	1.3	32.5	33.5	1.0	81.8	82.9	1.1	69.9	69.9	0.0	0.1	0.2	0.1
H23	34.4	35.7	1.3	31.4	32.4	1.0	80.8	81.8	1.0	69.2	69.2	0.0	0.1	0.1	0.0
I1	36.7	37.9	1.2	35.2	36.5	1.3	84.6	85.8	1.2	76.3	76.3	0.0	0.2	0.3	0.1
I2	38.3	39.5	1.2	36.6	37.8	1.2	85.9	87.2	1.3	76.9	76.9	0.0	0.3	0.4	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
I3	40.3	41.6	1.3	38.2	39.5	1.3	87.6	88.9	1.3	78.5	78.5	0.0	0.5	0.7	0.2
I4	42.6	43.7	1.1	40.2	41.3	1.1	89.6	90.6	1.0	80.1	80.1	0.0	0.7	0.9	0.2
I5	44.3	45.1	0.8	41.8	42.5	0.7	91.2	91.9	0.7	80.9	80.9	0.0	1.0	1.2	0.2
I6	44.7	45.7	1.0	42.4	43.3	0.9	91.8	92.6	0.8	81.9	81.9	0.0	1.1	1.4	0.3
I7	45.2	46.4	1.2	43.1	44.1	1.0	92.4	93.4	1.0	82.9	82.9	0.0	1.3	1.6	0.3
I8	45.9	47.3	1.4	43.8	44.8	1.0	93.2	94.2	1.0	83.6	83.6	0.0	1.4	1.8	0.4
I9	47.4	48.9	1.5	45.0	46.0	1.0	94.4	95.4	1.0	84.2	84.2	0.0	1.8	2.3	0.5
I10	49.6	51.3	1.7	46.6	47.6	1.0	96.0	97.0	1.0	85.2	85.2	0.0	2.7	3.7	1.0
I11	52.1	53.1	1.0	48.4	48.9	0.5	97.8	98.3	0.5	85.4	85.4	0.0	5.4	6.4	1.0
I12	51.0	51.7	0.7	47.6	47.9	0.3	97.0	97.3	0.3	85.6	85.6	0.0	4.1	4.4	0.3
I13	48.0	49.0	1.0	45.2	45.7	0.5	94.6	95.0	0.4	82.1	82.1	0.0	2.3	2.3	0.0
I14	45.8	47.1	1.3	43.2	43.7	0.5	92.6	93.1	0.5	78.6	78.9	0.3	1.3	1.5	0.2
I15	44.2	45.5	1.3	41.6	42.1	0.5	91.0	91.5	0.5	78.4	78.4	0.0	0.8	1.1	0.3
I16	42.5	44.0	1.5	39.9	40.7	0.8	89.3	90.1	0.8	77.4	77.4	0.0	0.7	0.8	0.1
I17	41.2	42.8	1.6	38.6	39.6	1.0	88.0	89.0	1.0	76.4	76.4	0.0	0.5	0.7	0.2
I18	40.3	41.8	1.5	37.6	38.6	1.0	87.0	88.0	1.0	75.4	75.4	0.0	0.4	0.5	0.1
I19	39.3	40.8	1.5	36.6	37.6	1.0	86.0	87.0	1.0	74.6	74.5	-0.1	0.3	0.4	0.1
I20	38.4	39.9	1.5	35.8	36.8	1.0	85.1	86.1	1.0	73.9	73.8	-0.1	0.3	0.4	0.1
I21	37.7	39.1	1.4	35.0	36.0	1.0	84.4	85.3	0.9	73.0	72.8	-0.2	0.2	0.3	0.1
I22	36.9	38.2	1.3	34.1	35.1	1.0	83.5	84.4	0.9	71.8	71.6	-0.2	0.2	0.3	0.1
I23	36.0	37.3	1.3	33.1	34.1	1.0	82.4	83.4	1.0	70.5	70.3	-0.2	0.2	0.2	0.0
J1	37.5	38.9	1.4	36.0	37.5	1.5	85.4	86.9	1.5	76.0	76.0	0.0	0.3	0.4	0.1
J2	39.3	40.8	1.5	37.7	39.2	1.5	87.1	88.6	1.5	77.9	77.9	0.0	0.4	0.6	0.2
J3	41.2	42.8	1.6	39.4	41.0	1.6	88.8	90.3	1.5	79.0	79.0	0.0	0.5	0.8	0.3
J4	42.8	44.2	1.4	41.1	42.5	1.4	90.4	91.9	1.5	80.5	80.5	0.0	0.9	1.2	0.3
J5	44.9	45.9	1.0	43.0	44.1	1.1	92.4	93.4	1.0	82.0	82.0	0.0	1.2	1.6	0.4
J6	46.2	47.1	0.9	44.3	45.2	0.9	93.7	94.5	0.8	82.6	82.9	0.3	1.5	1.9	0.4
J7	46.5	47.7	1.2	44.8	45.9	1.1	94.2	95.2	1.0	83.1	83.1	0.0	1.7	2.2	0.5
J8	47.1	48.5	1.4	45.4	46.4	1.0	94.8	95.8	1.0	84.0	84.0	0.0	1.9	2.4	0.5
J9	48.0	49.6	1.6	46.1	47.2	1.1	95.5	96.6	1.1	85.1	85.1	0.0	2.3	3.0	0.7
J10	50.4	52.1	1.7	47.8	48.8	1.0	97.1	98.2	1.1	86.2	86.2	0.0	3.4	4.8	1.4

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
J11	53.2	54.2	1.0	49.7	50.3	0.6	99.1	99.7	0.6	86.7	86.7	0.0	7.2	8.7	1.5
J12	52.2	53.1	0.9	49.0	49.4	0.4	98.3	98.8	0.5	87.1	87.1	0.0	5.5	6.4	0.9
J13	49.0	50.2	1.2	46.4	46.9	0.5	95.8	96.3	0.5	85.3	85.3	0.0	3.0	3.3	0.3
J14	46.8	48.1	1.3	44.2	44.7	0.5	93.6	94.1	0.5	80.3	80.4	0.1	1.8	2.2	0.4
J15	44.7	46.1	1.4	42.1	42.8	0.7	91.5	92.2	0.7	78.5	78.5	0.0	1.2	1.4	0.2
J16	43.1	44.8	1.7	40.5	41.6	1.1	89.8	91.0	1.2	78.7	78.7	0.0	0.8	1.0	0.2
J17	42.4	44.1	1.7	39.7	40.8	1.1	89.1	90.2	1.1	77.6	77.6	0.0	0.7	0.9	0.2
J18	41.6	43.3	1.7	39.0	40.0	1.0	88.3	89.4	1.1	76.4	76.6	0.2	0.6	0.8	0.2
J19	40.6	42.4	1.8	38.0	39.1	1.1	87.4	88.5	1.1	76.1	76.0	-0.1	0.5	0.6	0.1
J20	39.7	41.4	1.7	37.1	38.2	1.1	86.5	87.6	1.1	74.5	74.4	-0.1	0.3	0.5	0.2
J21	38.8	40.4	1.6	36.2	37.2	1.0	85.6	86.5	0.9	73.0	72.8	-0.2	0.3	0.4	0.1
J22	38.0	39.4	1.4	35.2	36.2	1.0	84.6	85.5	0.9	72.2	72.1	-0.1	0.2	0.3	0.1
J23	37.2	38.5	1.3	34.3	35.3	1.0	83.7	84.6	0.9	72.1	71.9	-0.2	0.2	0.3	0.1
K1	38.5	40.1	1.6	37.1	38.7	1.6	86.5	88.1	1.6	76.3	76.3	0.0	0.3	0.5	0.2
K2	40.7	42.3	1.6	39.2	40.8	1.6	88.6	90.2	1.6	77.9	78.3	0.4	0.6	0.9	0.3
K3	42.4	44.0	1.6	41.1	42.6	1.5	90.5	92.0	1.5	80.4	81.1	0.7	0.8	1.1	0.3
K4	43.8	45.3	1.5	42.6	44.0	1.4	92.0	93.4	1.4	82.4	82.7	0.3	1.1	1.6	0.5
K5	45.5	46.8	1.3	44.3	45.5	1.2	93.6	94.8	1.2	83.3	83.5	0.2	1.6	2.2	0.6
K6	47.3	48.4	1.1	45.8	46.8	1.0	95.2	96.1	0.9	84.1	84.2	0.1	2.2	2.8	0.6
K7	48.2	49.3	1.1	46.7	47.7	1.0	96.1	97.1	1.0	85.0	85.2	0.2	2.6	3.4	0.8
K8	48.7	50.0	1.3	47.4	48.4	1.0	96.8	97.7	0.9	85.8	86.1	0.3	2.9	3.9	1.0
K9	49.7	51.2	1.5	48.1	49.1	1.0	97.5	98.5	1.0	86.4	86.4	0.0	3.5	4.6	1.1
K10	51.4	53.2	1.8	49.1	50.3	1.2	98.5	99.6	1.1	87.4	87.4	0.0	4.8	7.0	2.2
K11	54.4	55.3	0.9	51.0	51.7	0.7	100.4	101.1	0.7	88.0	88.0	0.0	9.1	11.1	2.0
K12	53.5	54.6	1.1	50.4	51.1	0.7	99.8	100.5	0.7	88.4	88.4	0.0	7.5	9.0	1.5
K13	49.9	51.2	1.3	47.4	48.1	0.7	96.8	97.5	0.7	87.0	87.0	0.0	3.9	4.5	0.6
K14	47.6	49.1	1.5	45.2	46.1	0.9	94.5	95.5	1.0	81.7	81.7	0.0	2.2	2.7	0.5
K15	46.1	47.9	1.8	43.8	44.9	1.1	93.2	94.3	1.1	81.3	81.6	0.3	1.5	1.7	0.2
K16	45.2	47.2	2.0	43.1	44.2	1.1	92.4	93.5	1.1	82.3	82.5	0.2	1.1	1.4	0.3
K17	44.7	46.6	1.9	42.6	43.5	0.9	91.9	92.8	0.9	82.1	82.3	0.2	1.1	1.3	0.2
K18	43.9	45.7	1.8	41.7	42.5	0.8	91.0	91.8	0.8	81.9	82.2	0.3	0.9	1.1	0.2

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
K19	42.7	44.6	1.9	40.4	41.3	0.9	89.8	90.7	0.9	81.3	81.0	-0.3	0.7	0.9	0.2
K20	41.6	43.5	1.9	39.3	40.2	0.9	88.7	89.5	0.8	79.3	79.1	-0.2	0.6	0.8	0.2
K21	40.5	42.3	1.8	38.1	38.9	0.8	87.4	88.3	0.9	77.5	77.2	-0.3	0.4	0.6	0.2
K22	39.2	40.8	1.6	36.5	37.5	1.0	85.9	86.8	0.9	75.7	75.3	-0.4	0.3	0.4	0.1
K23	38.2	39.7	1.5	35.3	36.4	1.1	84.7	85.7	1.0	73.0	72.3	-0.7	0.2	0.2	0.0
L1	39.7	41.4	1.7	38.4	40.1	1.7	87.8	89.5	1.7	76.3	77.4	1.1	0.5	0.8	0.3
L2	41.8	43.4	1.6	40.6	42.1	1.5	89.9	91.5	1.6	80.0	80.6	0.6	0.8	1.1	0.3
L3	43.5	45.0	1.5	42.4	43.8	1.4	91.8	93.1	1.3	81.6	81.8	0.2	1.1	1.6	0.5
L4	44.7	46.2	1.5	43.8	45.0	1.2	93.1	94.4	1.3	81.9	81.7	-0.2	1.4	2.1	0.7
L5	46.0	47.4	1.4	45.0	46.3	1.3	94.4	95.6	1.2	82.7	82.7	0.0	1.9	2.6	0.7
L6	47.4	48.7	1.3	46.3	47.5	1.2	95.6	96.8	1.2	84.4	84.4	0.0	2.3	3.1	0.8
L7	49.1	50.2	1.1	47.6	48.7	1.1	97.0	98.0	1.0	85.5	85.5	0.0	2.8	3.7	0.9
L8	49.6	51.0	1.4	48.3	49.5	1.2	97.7	98.9	1.2	86.5	86.5	0.0	3.4	4.6	1.2
L9	50.9	52.4	1.5	49.4	50.6	1.2	98.8	100.0	1.2	87.8	87.8	0.0	4.5	6.2	1.7
L10	52.4	54.3	1.9	50.4	51.6	1.2	99.7	101.0	1.3	88.0	87.8	-0.2	6.5	10.1	3.6
L11	55.6	56.6	1.0	52.3	53.1	0.8	101.6	102.5	0.9	86.8	87.7	0.9	12.1	14.7	2.6
L12	54.8	56.0	1.2	51.8	52.7	0.9	101.2	102.1	0.9	88.0	86.9	-1.1	10.9	13.4	2.5
L13	51.1	52.8	1.7	48.8	49.9	1.1	98.1	99.3	1.2	83.5	83.5	0.0	5.3	6.5	1.2
L14	49.3	51.2	1.9	47.1	48.2	1.1	96.5	97.6	1.1	83.8	85.0	1.2	3.1	3.9	0.8
L15	48.3	50.3	2.0	46.5	47.4	0.9	95.8	96.7	0.9	86.4	86.8	0.4	2.3	2.8	0.5
L16	47.6	49.5	1.9	45.8	46.5	0.7	95.2	95.9	0.7	86.7	86.4	-0.3	2.0	2.4	0.4
L17	46.9	48.7	1.8	45.0	45.6	0.6	94.4	95.0	0.6	85.7	85.6	-0.1	1.9	2.2	0.3
L18	45.9	47.7	1.8	44.0	44.6	0.6	93.4	94.0	0.6	84.9	84.7	-0.2	1.7	1.9	0.2
L19	44.9	46.6	1.7	42.8	43.5	0.7	92.2	92.8	0.6	84.1	83.9	-0.2	1.3	1.6	0.3
L20	43.7	45.5	1.8	41.7	42.3	0.6	91.0	91.7	0.7	83.0	82.8	-0.2	1.0	1.2	0.2
L21	42.5	44.3	1.8	40.3	41.0	0.7	89.7	90.4	0.7	81.7	81.4	-0.3	0.7	0.9	0.2
L22	41.1	42.7	1.6	38.6	39.4	0.8	88.0	88.7	0.7	79.7	78.9	-0.8	0.5	0.6	0.1
L23	39.7	41.3	1.6	37.0	37.9	0.9	86.4	87.3	0.9	76.0	75.3	-0.7	0.3	0.5	0.2
M1	41.0	42.4	1.4	39.8	41.3	1.5	89.2	90.6	1.4	78.3	79.0	0.7	0.7	0.9	0.2
M2	42.8	44.2	1.4	41.6	43.0	1.4	91.0	92.3	1.3	80.3	80.6	0.3	1.0	1.5	0.5
M3	44.1	45.5	1.4	43.1	44.4	1.3	92.5	93.8	1.3	80.5	80.2	-0.3	1.4	2.0	0.6

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
M4	45.2	46.7	1.5	44.3	45.7	1.4	93.7	95.1	1.4	81.6	82.0	0.4	1.6	2.3	0.7
M5	46.5	48.1	1.6	45.7	47.1	1.4	95.0	96.5	1.5	84.3	84.8	0.5	2.0	2.9	0.9
M6	47.9	49.3	1.4	47.0	48.4	1.4	96.3	97.7	1.4	85.9	86.4	0.5	2.6	3.5	0.9
M7	49.5	50.7	1.2	48.3	49.6	1.3	97.7	98.9	1.2	87.2	87.6	0.4	3.1	4.3	1.2
M8	50.6	51.7	1.1	49.2	50.2	1.0	98.5	99.6	1.1	87.9	87.8	-0.1	3.6	4.9	1.3
M9	51.2	52.9	1.7	49.7	51.2	1.5	99.1	100.5	1.4	87.8	87.8	0.0	5.0	7.2	2.2
M10	53.4	55.4	2.0	51.3	52.8	1.5	100.7	102.1	1.4	85.9	84.7	-1.2	8.2	13.2	5.0
M11	57.1	58.1	1.0	53.8	54.7	0.9	103.2	104.1	0.9	84.3	84.3	0.0	16.1	20.4	4.3
M12	56.1	57.7	1.6	53.3	54.4	1.1	102.7	103.8	1.1	84.6	84.6	0.0	15.9	20.0	4.1
M13	52.7	54.6	1.9	50.5	51.6	1.1	99.9	101.0	1.1	84.4	84.4	0.0	7.2	8.9	1.7
M14	50.6	52.7	2.1	48.5	49.4	0.9	97.9	98.8	0.9	87.8	88.5	0.7	4.1	5.1	1.0
M15	49.6	51.6	2.0	47.8	48.4	0.6	97.1	97.8	0.7	87.9	87.2	-0.7	3.0	3.6	0.6
M16	48.7	50.5	1.8	46.8	47.3	0.5	96.2	96.7	0.5	85.1	83.8	-1.3	2.6	3.0	0.4
M17	47.6	49.4	1.8	45.6	46.2	0.6	95.0	95.6	0.6	83.4	82.8	-0.6	2.3	2.7	0.4
M18	46.7	48.3	1.6	44.6	45.2	0.6	93.9	94.6	0.7	82.4	82.0	-0.4	2.0	2.2	0.2
M19	45.8	47.4	1.6	43.5	44.2	0.7	92.9	93.6	0.7	82.4	82.3	-0.1	1.6	1.8	0.2
M20	44.9	46.5	1.6	42.6	43.3	0.7	92.0	92.7	0.7	82.5	82.4	-0.1	1.3	1.5	0.2
M21	43.9	45.5	1.6	41.7	42.3	0.6	91.0	91.7	0.7	82.3	82.2	-0.1	1.0	1.2	0.2
M22	42.7	44.3	1.6	40.4	41.1	0.7	89.8	90.5	0.7	81.5	81.0	-0.5	0.8	0.9	0.1
M23	41.5	43.0	1.5	39.0	39.7	0.7	88.4	89.1	0.7	79.1	78.4	-0.7	0.6	0.7	0.1
N1	41.6	43.0	1.4	40.5	41.9	1.4	89.9	91.3	1.4	78.9	79.3	0.4	0.9	1.3	0.4
N2	43.2	44.7	1.5	42.1	43.5	1.4	91.5	92.9	1.4	79.7	79.5	-0.2	1.2	1.7	0.5
N3	44.5	46.0	1.5	43.5	45.0	1.5	92.9	94.4	1.5	80.6	81.9	1.3	1.4	2.1	0.7
N4	45.8	47.4	1.6	45.0	46.5	1.5	94.4	95.9	1.5	83.9	84.4	0.5	1.8	2.6	0.8
N5	46.9	48.5	1.6	46.2	47.6	1.4	95.5	96.9	1.4	85.1	85.0	-0.1	2.2	3.1	0.9
N6	47.8	49.2	1.4	46.9	48.3	1.4	96.3	97.7	1.4	85.4	85.4	0.0	2.5	3.6	1.1
N7	48.8	50.2	1.4	47.8	49.1	1.3	97.2	98.5	1.3	85.7	85.8	0.1	3.1	4.3	1.2
N8	50.4	51.8	1.4	48.9	50.2	1.3	98.2	99.5	1.3	87.3	87.3	0.0	3.8	5.5	1.7
N9	51.7	53.5	1.8	50.1	51.8	1.7	99.4	101.2	1.8	83.8	84.1	0.3	5.6	8.3	2.7
N10	54.2	56.3	2.1	52.2	53.9	1.7	101.6	103.3	1.7	84.7	84.7	0.0	10.1	16.2	6.1
N11	58.6	59.4	0.8	55.4	56.2	0.8	104.8	105.6	0.8	85.4	85.4	0.0	21.0	26.0	5.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
N12	57.6	59.3	1.7	54.9	56.1	1.2	104.3	105.4	1.1	85.6	85.6	0.0	20.8	26.7	5.9
N13	54.1	56.3	2.2	52.0	53.1	1.1	101.4	102.4	1.0	85.3	85.3	0.0	10.0	12.2	2.2
N14	51.5	53.9	2.4	49.4	50.3	0.9	98.8	99.7	0.9	84.3	84.3	0.0	5.5	6.9	1.4
N15	49.7	52.1	2.4	47.7	48.8	1.1	97.1	98.1	1.0	88.1	88.6	0.5	3.6	4.5	0.9
N16	48.9	51.1	2.2	47.1	48.0	0.9	96.5	97.3	0.8	88.0	87.8	-0.2	2.9	3.6	0.7
N17	47.8	49.9	2.1	45.9	46.8	0.9	95.3	96.1	0.8	86.6	86.3	-0.3	2.3	2.8	0.5
N18	46.7	48.7	2.0	44.7	45.5	0.8	94.1	94.9	0.8	85.0	84.7	-0.3	1.8	2.2	0.4
N19	45.8	47.5	1.7	43.5	44.3	0.8	92.9	93.7	0.8	81.3	80.4	-0.9	1.5	1.9	0.4
N20	45.1	46.6	1.5	42.7	43.4	0.7	92.0	92.8	0.8	78.4	78.4	0.0	1.4	1.7	0.3
N21	44.3	45.9	1.6	41.9	42.6	0.7	91.2	92.0	0.8	80.1	80.4	0.3	1.2	1.4	0.2
N22	43.5	45.1	1.6	41.1	41.9	0.8	90.5	91.2	0.7	81.0	80.9	-0.1	1.0	1.2	0.2
N23	42.6	44.1	1.5	40.2	40.9	0.7	89.6	90.2	0.6	80.2	79.9	-0.3	0.8	1.0	0.2
O1	42.0	43.5	1.5	40.8	42.3	1.5	90.2	91.7	1.5	78.5	78.7	0.2	1.0	1.4	0.4
O2	43.5	45.1	1.6	42.4	44.0	1.6	91.8	93.4	1.6	78.7	79.4	0.7	1.3	1.8	0.5
O3	44.9	46.5	1.6	44.0	45.5	1.5	93.4	94.9	1.5	82.4	83.1	0.7	1.6	2.3	0.7
O4	46.0	47.4	1.4	45.1	46.5	1.4	94.5	95.8	1.3	83.9	83.6	-0.3	1.8	2.6	0.8
O5	46.4	47.8	1.4	45.6	46.8	1.2	95.0	96.2	1.2	84.0	84.0	0.0	2.0	3.0	1.0
O6	46.7	48.2	1.5	45.7	47.1	1.4	95.1	96.4	1.3	84.2	84.2	0.0	2.3	3.2	0.9
O7	47.5	49.1	1.6	46.3	47.8	1.5	95.7	97.2	1.5	87.5	87.5	0.0	2.8	3.9	1.1
O8	49.1	50.8	1.7	47.6	49.3	1.7	97.0	98.6	1.6	87.1	87.1	0.0	3.4	5.0	1.6
O9	52.1	53.9	1.8	50.2	51.9	1.7	99.6	101.3	1.7	85.2	85.2	0.0	5.9	9.1	3.2
O10	55.0	57.3	2.3	53.1	55.0	1.9	102.4	104.4	2.0	85.2	85.6	0.4	12.1	19.4	7.3
O11	60.1	60.9	0.8	57.1	57.7	0.6	106.4	107.1	0.7	86.3	86.3	0.0	25.7	31.8	6.1
O12	59.1	61.0	1.9	56.5	57.6	1.1	105.9	107.0	1.1	86.7	86.7	0.0	27.0	34.6	7.6
O13	55.2	57.5	2.3	53.2	54.4	1.2	102.6	103.7	1.1	86.5	86.5	0.0	12.5	15.7	3.2
O14	51.8	54.5	2.7	49.8	51.1	1.3	99.1	100.5	1.4	85.8	85.8	0.0	6.1	8.1	2.0
O15	49.6	52.6	3.0	47.5	49.3	1.8	96.9	98.7	1.8	85.6	85.6	0.0	3.8	5.1	1.3
O16	48.6	51.5	2.9	46.6	48.4	1.8	96.0	97.8	1.8	84.7	84.6	-0.1	2.7	3.7	1.0
O17	47.7	50.5	2.8	45.8	47.4	1.6	95.2	96.8	1.6	85.3	85.2	-0.1	2.3	3.1	0.8
O18	47.1	49.5	2.4	45.2	46.4	1.2	94.5	95.8	1.3	87.7	87.7	0.0	1.8	2.4	0.6
O19	46.1	48.2	2.1	44.1	45.1	1.0	93.5	94.5	1.0	84.5	84.5	0.0	1.5	2.0	0.5

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
O20	45.0	46.8	1.8	42.6	43.5	0.9	92.0	92.9	0.9	81.0	81.0	0.0	1.4	1.7	0.3
O21	44.1	45.8	1.7	41.5	42.4	0.9	90.8	91.8	1.0	77.1	77.1	0.0	1.2	1.5	0.3
O22	43.6	45.2	1.6	41.0	41.9	0.9	90.3	91.2	0.9	78.9	79.1	0.2	1.0	1.2	0.2
O23	43.1	44.6	1.5	40.5	41.2	0.7	89.9	90.6	0.7	79.7	79.6	-0.1	0.8	1.0	0.2
P1	42.2	43.8	1.6	41.0	42.6	1.6	90.4	92.0	1.6	77.9	78.1	0.2	1.0	1.4	0.4
P2	43.6	45.2	1.6	42.5	44.1	1.6	91.9	93.5	1.6	79.8	81.0	1.2	1.2	1.8	0.6
P3	44.9	46.2	1.3	44.0	45.3	1.3	93.3	94.7	1.4	82.8	82.9	0.1	1.6	2.3	0.7
P4	45.5	46.8	1.3	44.7	45.9	1.2	94.1	95.2	1.1	82.3	81.6	-0.7	1.6	2.3	0.7
P5	45.5	47.1	1.6	44.6	46.0	1.4	94.0	95.4	1.4	83.6	84.3	0.7	1.8	2.6	0.8
P6	46.1	47.9	1.8	45.1	46.9	1.8	94.5	96.3	1.8	85.4	85.4	0.0	2.0	2.8	0.8
P7	47.1	49.0	1.9	46.0	47.9	1.9	95.4	97.2	1.8	85.9	85.9	0.0	2.1	3.1	1.0
P8	48.7	50.7	2.0	47.4	49.3	1.9	96.7	98.7	2.0	85.2	85.6	0.4	3.2	5.0	1.8
P9	52.0	53.9	1.9	50.1	51.9	1.8	99.5	101.3	1.8	85.4	85.3	-0.1	6.2	9.7	3.5
P10	56.1	58.5	2.4	54.0	56.0	2.0	103.4	105.4	2.0	86.5	86.6	0.1	14.1	22.7	8.6
P11	61.6	62.4	0.8	58.7	59.3	0.6	108.1	108.7	0.6	87.7	87.9	0.2	31.3	40.1	8.8
P12	60.6	62.6	2.0	58.1	59.1	1.0	107.5	108.5	1.0	88.1	88.1	0.0	33.3	41.5	8.2
P13	56.0	58.7	2.7	54.1	55.7	1.6	103.5	105.1	1.6	87.8	87.8	0.0	15.3	19.6	4.3
P14	52.4	55.9	3.5	50.5	52.7	2.2	99.9	102.0	2.1	87.1	87.1	0.0	7.3	9.7	2.4
P15	50.1	53.7	3.6	48.2	50.5	2.3	97.5	99.9	2.4	86.6	86.6	0.0	3.5	5.2	1.7
P16	48.3	51.8	3.5	46.3	48.7	2.4	95.7	98.1	2.4	85.7	85.7	0.0	2.3	3.4	1.1
P17	47.1	50.5	3.4	45.1	47.5	2.4	94.5	96.9	2.4	84.4	84.4	0.0	2.0	2.9	0.9
P18	46.7	49.7	3.0	44.8	46.8	2.0	94.2	96.1	1.9	87.7	87.7	0.0	1.8	2.5	0.7
P19	46.2	48.8	2.6	44.4	45.8	1.4	93.7	95.2	1.5	87.3	87.3	0.0	1.4	1.9	0.5
P20	45.3	47.4	2.1	43.1	44.3	1.2	92.5	93.6	1.1	85.2	85.2	0.0	1.2	1.6	0.4
P21	44.2	45.9	1.7	41.6	42.6	1.0	91.0	92.0	1.0	79.6	79.6	0.0	1.1	1.4	0.3
P22	43.4	45.0	1.6	40.6	41.6	1.0	89.9	91.0	1.1	77.0	77.0	0.0	1.0	1.3	0.3
P23	42.9	44.4	1.5	40.1	41.0	0.9	89.5	90.4	0.9	78.1	78.3	0.2	0.8	1.0	0.2
Q1	42.2	43.7	1.5	41.0	42.5	1.5	90.4	91.9	1.5	77.2	77.4	0.2	0.9	1.3	0.4
Q2	43.4	44.8	1.4	42.4	43.7	1.3	91.8	93.1	1.3	79.5	80.6	1.1	1.2	1.7	0.5
Q3	44.3	45.6	1.3	43.4	44.6	1.2	92.8	94.0	1.2	82.0	82.0	0.0	1.3	1.9	0.6
Q4	45.1	46.6	1.5	44.3	45.7	1.4	93.6	95.1	1.5	83.8	85.4	1.6	1.4	2.1	0.7

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Q5	46.2	47.5	1.3	45.4	46.6	1.2	94.8	96.0	1.2	87.8	88.3	0.5	1.7	2.4	0.7
Q6	45.8	47.5	1.7	44.9	46.4	1.5	94.3	95.8	1.5	86.7	85.0	-1.7	1.5	2.1	0.6
Q7	46.2	48.1	1.9	45.1	46.9	1.8	94.4	96.2	1.8	86.8	86.8	0.0	1.5	2.2	0.7
Q8	47.8	50.0	2.2	46.5	48.5	2.0	95.8	97.9	2.1	87.8	87.8	0.0	2.2	3.8	1.6
Q9	51.3	53.8	2.5	49.7	52.0	2.3	99.1	101.4	2.3	86.6	86.6	0.0	6.1	9.9	3.8
Q10	56.8	59.5	2.7	54.9	57.1	2.2	104.2	106.4	2.2	88.9	88.9	0.0	16.2	25.9	9.7
Q11	63.1	63.9	0.8	60.3	60.9	0.6	109.7	110.3	0.6	89.8	90.1	0.3	37.3	47.8	10.5
Q12	62.1	64.0	1.9	59.7	60.7	1.0	109.0	110.1	1.1	91.9	91.9	0.0	41.1	51.0	9.9
Q13	56.7	59.8	3.1	54.8	57.0	2.2	104.2	106.4	2.2	90.4	90.4	0.0	18.1	23.2	5.1
Q14	52.3	56.0	3.7	50.5	52.9	2.4	99.9	102.3	2.4	89.2	89.2	0.0	6.5	9.2	2.7
Q15	49.3	53.3	4.0	47.7	49.9	2.2	97.1	99.3	2.2	86.4	86.4	0.0	2.7	4.5	1.8
Q16	47.5	51.2	3.7	45.8	47.9	2.1	95.2	97.2	2.0	85.6	85.3	-0.3	1.8	2.9	1.1
Q17	46.3	49.6	3.3	44.4	46.5	2.1	93.8	95.9	2.1	83.4	83.4	0.0	1.4	2.2	0.8
Q18	46.1	48.9	2.8	44.1	46.0	1.9	93.5	95.4	1.9	87.7	87.7	0.0	1.3	2.0	0.7
Q19	45.7	48.5	2.8	44.0	45.6	1.6	93.3	95.0	1.7	87.4	87.4	0.0	1.3	1.8	0.5
Q20	45.1	47.6	2.5	43.2	44.6	1.4	92.5	93.9	1.4	85.6	85.6	0.0	1.1	1.6	0.5
Q21	44.4	46.4	2.0	42.0	43.2	1.2	91.4	92.6	1.2	82.5	82.5	0.0	0.9	1.3	0.4
Q22	43.6	45.2	1.6	40.8	41.8	1.0	90.2	91.2	1.0	77.6	77.5	-0.1	0.8	1.1	0.3
Q23	43.0	44.4	1.4	40.0	40.9	0.9	89.4	90.3	0.9	75.9	76.4	0.5	0.7	1.0	0.3
R1	41.8	43.1	1.3	40.6	41.9	1.3	90.0	91.2	1.2	76.5	76.7	0.2	0.8	1.1	0.3
R2	42.8	44.1	1.3	41.7	43.0	1.3	91.1	92.4	1.3	79.1	80.0	0.9	1.0	1.5	0.5
R3	43.8	45.2	1.4	42.8	44.3	1.5	92.2	93.6	1.4	81.3	81.6	0.3	1.2	1.7	0.5
R4	45.0	46.5	1.5	44.3	45.7	1.4	93.6	95.1	1.5	85.6	86.4	0.8	1.4	1.9	0.5
R5	45.6	46.8	1.2	44.8	45.9	1.1	94.2	95.2	1.0	86.8	86.2	-0.6	1.3	1.7	0.4
R6	44.6	45.9	1.3	43.6	44.7	1.1	93.0	94.1	1.1	84.0	84.0	0.0	1.0	1.4	0.4
R7	44.7	46.6	1.9	43.5	45.2	1.7	92.8	94.5	1.7	86.0	86.0	0.0	1.1	1.6	0.5
R8	46.6	48.8	2.2	45.3	47.2	1.9	94.7	96.6	1.9	87.1	87.3	0.2	1.5	2.9	1.4
R9	50.4	53.3	2.9	48.9	51.2	2.3	98.3	100.6	2.3	88.9	89.3	0.4	5.4	9.1	3.7
R10	56.8	60.2	3.4	55.1	57.8	2.7	104.5	107.2	2.7	88.7	90.4	1.7	18.4	28.7	10.3
R11	64.8	65.7	0.9	62.2	62.7	0.5	111.6	112.1	0.5	93.6	93.6	0.0	44.0	55.8	11.8
R12	63.8	66.0	2.2	61.5	63.1	1.6	110.9	112.4	1.5	95.7	95.7	0.0	49.1	60.2	11.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
R13	57.3	60.4	3.1	55.5	57.9	2.4	104.9	107.2	2.3	94.4	94.4	0.0	19.7	25.5	5.8
R14	51.1	54.2	3.1	49.1	51.1	2.0	98.5	100.5	2.0	85.8	85.8	0.0	5.3	7.4	2.1
R15	48.1	51.4	3.3	46.1	47.9	1.8	95.5	97.2	1.7	85.7	87.1	1.4	2.0	3.4	1.4
R16	47.9	50.8	2.9	46.3	47.4	1.1	95.7	96.8	1.1	88.3	87.9	-0.4	1.7	2.4	0.7
R17	46.8	49.4	2.6	44.9	46.0	1.1	94.2	95.3	1.1	84.9	84.1	-0.8	1.4	1.9	0.5
R18	45.7	48.1	2.4	43.4	44.7	1.3	92.7	94.1	1.4	82.8	82.8	0.0	1.3	1.8	0.5
R19	45.5	47.7	2.2	43.2	44.6	1.4	92.5	93.9	1.4	86.3	86.3	0.0	1.2	1.6	0.4
R20	45.0	47.2	2.2	42.8	44.1	1.3	92.2	93.5	1.3	84.5	84.5	0.0	1.1	1.4	0.3
R21	44.3	46.3	2.0	42.0	43.1	1.1	91.3	92.5	1.2	83.9	83.9	0.0	1.0	1.2	0.2
R22	43.7	45.4	1.7	41.0	42.0	1.0	90.4	91.4	1.0	80.0	79.3	-0.7	0.9	1.1	0.2
R23	43.0	44.5	1.5	40.1	41.0	0.9	89.4	90.4	1.0	76.9	76.9	0.0	0.8	0.9	0.1
S1	41.3	42.6	1.3	39.9	41.3	1.4	89.3	90.6	1.3	75.9	76.0	0.1	0.7	1.0	0.3
S2	42.1	43.6	1.5	41.0	42.5	1.5	90.3	91.8	1.5	78.1	79.0	0.9	0.9	1.3	0.4
S3	43.2	44.8	1.6	42.3	43.8	1.5	91.7	93.2	1.5	81.0	82.5	1.5	1.0	1.4	0.4
S4	44.4	45.7	1.3	43.7	44.9	1.2	93.0	94.2	1.2	85.6	85.8	0.2	1.1	1.5	0.4
S5	44.3	45.3	1.0	43.6	44.3	0.7	92.9	93.7	0.8	84.6	83.1	-1.5	1.0	1.4	0.4
S6	43.6	45.1	1.5	42.6	43.9	1.3	92.0	93.3	1.3	82.8	84.1	1.3	0.9	1.4	0.5
S7	44.4	46.1	1.7	43.3	44.7	1.4	92.7	94.1	1.4	85.9	85.9	0.0	1.0	1.3	0.3
S8	46.0	48.2	2.2	44.6	46.4	1.8	94.0	95.7	1.7	86.3	86.3	0.0	1.2	2.7	1.5
S9	50.1	53.3	3.2	48.6	51.1	2.5	97.9	100.5	2.6	87.2	88.4	1.2	5.1	8.3	3.2
S10	57.4	61.6	4.2	56.0	59.3	3.3	105.4	108.7	3.3	94.6	95.4	0.8	20.5	32.6	12.1
S11	67.2	68.0	0.8	64.9	65.3	0.4	114.3	114.6	0.3	96.8	96.9	0.1	51.2	65.3	14.1
S12	66.3	68.8	2.5	64.1	65.9	1.8	113.5	115.3	1.8	103.8	103.8	0.0	56.9	70.5	13.6
S13	58.0	61.2	3.2	56.3	58.5	2.2	105.6	107.9	2.3	95.9	95.9	0.0	21.5	28.2	6.7
S14	51.4	54.5	3.1	49.7	51.0	1.3	99.1	100.4	1.3	87.5	86.7	-0.8	5.3	7.1	1.8
S15	47.8	50.4	2.6	45.8	46.8	1.0	95.1	96.2	1.1	81.8	82.8	1.0	2.2	3.2	1.0
S16	46.9	49.6	2.7	45.2	46.1	0.9	94.5	95.5	1.0	86.3	86.7	0.4	1.6	1.9	0.3
S17	46.3	49.1	2.8	44.8	45.7	0.9	94.1	95.0	0.9	86.8	86.8	0.0	1.3	1.7	0.4
S18	44.9	47.5	2.6	43.0	44.1	1.1	92.4	93.5	1.1	86.0	86.0	0.0	0.9	1.4	0.5
S19	44.2	46.6	2.4	41.9	43.2	1.3	91.3	92.6	1.3	84.6	84.6	0.0	0.8	1.2	0.4
S20	43.8	46.2	2.4	41.6	43.0	1.4	90.9	92.4	1.5	84.8	84.8	0.0	0.7	1.1	0.4

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S21	43.2	45.5	2.3	41.0	42.3	1.3	90.4	91.7	1.3	83.8	83.8	0.0	0.6	0.9	0.3
S22	42.7	44.7	2.0	40.4	41.5	1.1	89.8	90.9	1.1	80.9	80.9	0.0	0.6	0.9	0.3
S23	42.1	43.9	1.8	39.6	40.6	1.0	88.9	90.0	1.1	78.3	77.5	-0.8	0.6	0.8	0.2
T1	40.6	42.0	1.4	39.1	40.6	1.5	88.5	89.9	1.4	76.5	76.5	0.0	0.6	0.8	0.2
T2	41.4	42.9	1.5	40.2	41.7	1.5	89.6	91.1	1.5	77.1	78.0	0.9	0.7	0.9	0.2
T3	42.5	44.0	1.5	41.6	43.0	1.4	90.9	92.4	1.5	80.4	81.8	1.4	0.8	1.1	0.3
T4	43.6	44.7	1.1	42.8	43.8	1.0	92.2	93.2	1.0	84.7	84.9	0.2	1.0	1.3	0.3
T5	43.5	44.5	1.0	42.7	43.4	0.7	92.0	92.8	0.8	83.8	82.6	-1.2	0.9	1.2	0.3
T6	43.3	44.7	1.4	42.3	43.4	1.1	91.6	92.8	1.2	83.8	84.4	0.6	0.9	1.2	0.3
T7	43.8	45.4	1.6	42.6	43.7	1.1	91.9	93.1	1.2	84.0	82.9	-1.1	0.8	1.0	0.2
T8	45.3	47.8	2.5	43.8	45.6	1.8	93.1	95.0	1.9	85.4	85.4	0.0	0.9	2.5	1.6
T9	50.0	53.7	3.7	48.5	51.2	2.7	97.8	100.6	2.8	83.3	83.3	0.0	5.1	8.3	3.2
T10	58.2	63.0	4.8	56.8	60.6	3.8	106.2	110.0	3.8	90.3	94.1	3.8	24.1	38.5	14.4
T11	70.0	70.2	0.2	67.6	67.4	-0.2	117.0	116.8	-0.2	104.6	104.4	-0.2	57.4	73.2	15.8
T12	69.5	71.8	2.3	67.5	69.1	1.6	116.9	118.5	1.6	121.2	121.2	0.0	63.2	76.7	13.5
T13	57.7	60.7	3.0	55.8	58.2	2.4	105.2	107.6	2.4	94.0	94.0	0.0	21.7	29.1	7.4
T14	51.3	54.3	3.0	49.4	50.7	1.3	98.7	100.1	1.4	86.4	86.7	0.3	4.7	6.0	1.3
T15	47.9	50.7	2.8	46.1	46.6	0.5	95.5	95.9	0.4	85.0	83.6	-1.4	1.8	2.4	0.6
T16	45.9	48.5	2.6	44.0	44.9	0.9	93.4	94.3	0.9	82.2	83.2	1.0	1.2	1.5	0.3
T17	45.8	48.5	2.7	44.2	45.2	1.0	93.6	94.5	0.9	87.3	87.3	0.0	1.0	1.4	0.4
T18	45.2	47.6	2.4	43.5	44.3	0.8	92.9	93.7	0.8	86.8	86.8	0.0	0.9	1.3	0.4
T19	44.0	46.2	2.2	41.8	42.8	1.0	91.2	92.1	0.9	83.1	83.1	0.0	0.7	1.1	0.4
T20	43.5	45.5	2.0	41.0	42.1	1.1	90.3	91.5	1.2	84.4	84.4	0.0	0.7	1.1	0.4
T21	42.7	44.8	2.1	40.2	41.4	1.2	89.6	90.8	1.2	83.0	83.0	0.0	0.5	0.7	0.2
T22	42.0	44.0	2.0	39.6	40.7	1.1	89.0	90.0	1.0	81.8	81.8	0.0	0.4	0.7	0.3
T23	41.5	43.3	1.8	39.0	39.9	0.9	88.3	89.3	1.0	79.2	78.7	-0.5	0.4	0.6	0.2
U1	39.9	41.2	1.3	38.3	39.7	1.4	87.6	89.0	1.4	74.9	75.0	0.1	0.3	0.5	0.2
U2	40.6	41.9	1.3	39.3	40.6	1.3	88.7	90.0	1.3	76.2	77.1	0.9	0.6	0.8	0.2
U3	41.7	43.0	1.3	40.7	41.9	1.2	90.1	91.3	1.2	79.2	80.4	1.2	0.7	0.9	0.2
U4	42.9	43.9	1.0	42.1	43.0	0.9	91.4	92.4	1.0	83.5	83.9	0.4	0.9	1.2	0.3
U5	43.0	44.0	1.0	42.2	43.0	0.8	91.5	92.3	0.8	83.5	82.8	-0.7	0.8	1.1	0.3

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
U6	42.9	44.2	1.3	41.9	42.9	1.0	91.2	92.3	1.1	82.8	83.4	0.6	0.7	1.0	0.3
U7	43.3	44.9	1.6	42.0	43.2	1.2	91.4	92.5	1.1	82.6	82.5	-0.1	0.7	0.9	0.2
U8	45.0	47.5	2.5	43.4	45.2	1.8	92.8	94.6	1.8	84.3	84.3	0.0	0.8	2.2	1.4
U9	49.9	53.5	3.6	48.2	51.0	2.8	97.6	100.4	2.8	83.4	83.4	0.0	4.7	8.5	3.8
U10	58.6	64.3	5.7	57.2	61.8	4.6	106.6	111.2	4.6	88.5	93.3	4.8	28.6	52.1	23.5
U11	73.2	73.9	0.7	70.8	71.2	0.4	120.2	120.5	0.3	117.7	102.2	-15.5	58.8	108.5	49.7
U12	74.0	76.6	2.6	71.7	73.9	2.2	121.0	123.3	2.3	121.6	121.6	0.0	67.8	77.8	10.0
U13	57.1	59.5	2.4	54.8	57.0	2.2	104.2	106.4	2.2	91.5	91.5	0.0	19.6	25.9	6.3
U14	50.2	52.8	2.6	47.9	49.2	1.3	97.3	98.6	1.3	83.4	84.4	1.0	3.4	4.4	1.0
U15	47.4	50.6	3.2	45.9	46.3	0.4	95.2	95.7	0.5	85.3	84.8	-0.5	1.5	1.6	0.1
U16	45.2	47.8	2.6	43.7	44.0	0.3	93.0	93.4	0.4	80.8	80.5	-0.3	1.3	1.4	0.1
U17	44.4	47.3	2.9	42.9	43.9	1.0	92.2	93.3	1.1	86.1	86.1	0.0	0.8	1.1	0.3
U18	44.4	47.1	2.7	42.9	43.8	0.9	92.3	93.2	0.9	85.9	85.9	0.0	0.8	1.0	0.2
U19	43.9	46.1	2.2	42.0	42.7	0.7	91.3	92.0	0.7	83.1	82.4	-0.7	0.7	0.9	0.2
U20	43.4	45.4	2.0	40.9	41.8	0.9	90.3	91.2	0.9	83.7	83.7	0.0	0.6	1.0	0.4
U21	42.6	44.5	1.9	40.0	40.9	0.9	89.3	90.3	1.0	81.7	81.7	0.0	0.5	0.7	0.2
U22	41.7	43.5	1.8	39.1	40.0	0.9	88.5	89.3	0.8	82.0	82.0	0.0	0.4	0.6	0.2
U23	41.0	42.7	1.7	38.4	39.2	0.8	87.8	88.5	0.7	79.0	78.9	-0.1	0.3	0.5	0.2
V1	39.3	40.4	1.1	37.6	38.7	1.1	86.9	88.1	1.2	74.3	74.4	0.1	0.2	0.3	0.1
V2	40.0	41.1	1.1	38.7	39.8	1.1	88.1	89.2	1.1	75.3	76.1	0.8	0.5	0.6	0.1
V3	41.1	42.2	1.1	40.0	41.1	1.1	89.4	90.5	1.1	77.6	78.8	1.2	0.7	0.8	0.1
V4	42.2	43.3	1.1	41.4	42.4	1.0	90.8	91.7	0.9	82.2	82.8	0.6	0.7	0.9	0.2
V5	42.7	43.6	0.9	41.9	42.6	0.7	91.2	92.0	0.8	83.1	82.6	-0.5	0.8	1.1	0.3
V6	42.6	43.9	1.3	41.7	42.7	1.0	91.0	92.0	1.0	85.4	86.9	1.5	0.9	1.2	0.3
V7	43.2	44.6	1.4	42.0	43.1	1.1	91.4	92.4	1.0	88.0	87.5	-0.5	0.9	1.1	0.2
V8	44.5	46.7	2.2	42.8	44.3	1.5	92.2	93.7	1.5	83.0	83.0	0.0	0.7	0.8	0.1
V9	48.8	52.1	3.3	46.8	49.4	2.6	96.2	98.8	2.6	83.2	83.2	0.0	3.2	6.3	3.1
V10	57.5	63.7	6.2	55.9	61.1	5.2	105.3	110.5	5.2	86.3	91.7	5.4	22.2	45.3	23.1
V11	87.4	75.2	-12.2	86.4	72.5	-13.9	135.8	121.9	-13.9	134.2	105.1	-29.1	70.5	100.4	29.9
V12	89.6	93.8	4.2	88.3	92.1	3.8	137.7	141.4	3.7	146.4	146.4	0.0	76.8	88.1	11.3
V13	55.8	57.4	1.6	52.8	54.3	1.5	102.1	103.6	1.5	85.0	85.0	0.0	21.8	25.4	3.6

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
V14	48.9	50.7	1.8	46.3	47.2	0.9	95.6	96.5	0.9	79.1	80.6	1.5	2.0	2.8	0.8
V15	46.6	49.8	3.2	44.8	45.5	0.7	94.2	94.9	0.7	84.0	84.2	0.2	1.3	1.5	0.2
V16	45.5	48.3	2.8	44.0	44.2	0.2	93.4	93.6	0.2	82.8	81.8	-1.0	1.5	1.6	0.1
V17	43.9	46.6	2.7	42.2	42.9	0.7	91.6	92.3	0.7	85.1	85.1	0.0	0.9	1.1	0.2
V18	43.6	46.3	2.7	42.0	43.0	1.0	91.4	92.3	0.9	85.0	85.0	0.0	0.7	1.0	0.3
V19	43.3	45.8	2.5	41.7	42.4	0.7	91.1	91.8	0.7	83.5	83.2	-0.3	0.6	0.8	0.2
V20	43.0	45.2	2.2	41.0	41.7	0.7	90.4	91.1	0.7	82.8	82.8	0.0	0.5	0.8	0.3
V21	42.5	44.3	1.8	39.9	40.7	0.8	89.3	90.1	0.8	81.6	81.6	0.0	0.4	0.6	0.2
V22	41.6	43.3	1.7	38.8	39.6	0.8	88.2	89.0	0.8	81.5	81.5	0.0	0.3	0.5	0.2
V23	40.9	42.4	1.5	38.1	38.7	0.6	87.4	88.1	0.7	79.9	79.9	0.0	0.3	0.4	0.1
W1	39.0	40.0	1.0	37.2	38.2	1.0	86.6	87.6	1.0	73.8	73.9	0.1	0.2	0.3	0.1
W2	39.8	40.7	0.9	38.4	39.4	1.0	87.8	88.8	1.0	74.5	75.3	0.8	0.4	0.5	0.1
W3	40.7	41.7	1.0	39.7	40.6	0.9	89.0	90.0	1.0	76.8	77.4	0.6	0.6	0.7	0.1
W4	41.8	42.8	1.0	40.9	41.9	1.0	90.3	91.2	0.9	81.0	81.6	0.6	0.8	0.9	0.1
W5	42.4	43.3	0.9	41.6	42.3	0.7	90.9	91.7	0.8	82.5	82.3	-0.2	0.8	1.0	0.2
W6	42.5	43.6	1.1	41.5	42.5	1.0	90.9	91.8	0.9	84.0	85.5	1.5	0.8	1.0	0.2
W7	43.1	44.4	1.3	41.9	42.8	0.9	91.3	92.2	0.9	87.5	87.3	-0.2	0.7	0.8	0.1
W8	44.3	46.1	1.8	42.4	43.6	1.2	91.8	93.0	1.2	84.4	82.8	-1.6	0.4	0.5	0.1
W9	48.0	50.9	2.9	45.7	48.0	2.3	95.1	97.3	2.2	82.8	82.8	0.0	2.1	4.2	2.1
W10	55.8	61.6	5.8	53.7	58.7	5.0	103.0	108.1	5.1	81.1	86.3	5.2	16.8	39.3	22.5
W11	85.8	74.5	-11.3	85.1	71.9	-13.2	134.5	121.3	-13.2	125.1	103.8	-21.3	62.8	83.7	20.9
W12	90.5	94.7	4.2	89.4	93.0	3.6	138.7	142.3	3.6	141.2	141.2	0.0	67.2	77.5	10.3
W13	53.3	55.0	1.7	50.7	52.2	1.5	100.1	101.6	1.5	79.8	79.8	0.0	8.2	10.3	2.1
W14	47.2	49.1	1.9	44.9	45.9	1.0	94.2	95.2	1.0	76.6	78.0	1.4	1.3	2.0	0.7
W15	45.2	48.4	3.2	43.5	44.3	0.8	92.9	93.7	0.8	82.4	84.1	1.7	1.0	1.1	0.1
W16	45.0	48.2	3.2	43.8	44.3	0.5	93.2	93.6	0.4	87.2	87.4	0.2	1.1	1.3	0.2
W17	44.0	46.5	2.5	42.6	43.1	0.5	92.0	92.5	0.5	84.4	84.2	-0.2	1.0	1.1	0.1
W18	43.1	45.6	2.5	41.5	42.3	0.8	90.9	91.7	0.8	84.3	84.3	0.0	0.8	1.0	0.2
W19	42.8	45.3	2.5	41.1	41.9	0.8	90.5	91.2	0.7	82.3	82.5	0.2	0.6	0.9	0.3
W20	42.8	45.1	2.3	40.9	41.6	0.7	90.3	90.9	0.6	82.4	82.0	-0.4	0.5	0.8	0.3
W21	42.3	44.3	2.0	40.1	40.7	0.6	89.4	90.0	0.6	81.6	81.6	0.0	0.5	0.6	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
W22	41.4	43.1	1.7	38.7	39.4	0.7	88.1	88.8	0.7	80.4	80.4	0.0	0.4	0.5	0.1
W23	40.7	42.2	1.5	37.9	38.4	0.5	87.2	87.8	0.6	80.0	80.0	0.0	0.3	0.3	0.0
X1	38.9	39.8	0.9	37.1	38.0	0.9	86.5	87.3	0.8	73.3	73.5	0.2	0.2	0.2	0.0
X2	39.6	40.5	0.9	38.2	39.0	0.8	87.5	88.4	0.9	73.8	74.5	0.7	0.4	0.4	0.0
X3	40.3	41.3	1.0	39.2	40.1	0.9	88.6	89.4	0.8	76.1	76.4	0.3	0.6	0.6	0.0
X4	41.2	42.1	0.9	40.2	41.1	0.9	89.6	90.5	0.9	79.5	80.4	0.9	0.7	0.8	0.1
X5	41.7	42.6	0.9	40.8	41.6	0.8	90.2	90.9	0.7	81.8	81.7	-0.1	0.7	0.9	0.2
X6	41.9	42.9	1.0	40.8	41.6	0.8	90.2	91.0	0.8	81.4	82.8	1.4	0.6	0.7	0.1
X7	42.7	44.0	1.3	41.3	42.3	1.0	90.7	91.6	0.9	86.1	86.3	0.2	0.6	0.7	0.1
X8	44.5	46.4	1.9	42.4	43.8	1.4	91.8	93.1	1.3	85.1	83.9	-1.2	0.4	0.6	0.2
X9	48.8	51.6	2.8	46.1	48.6	2.5	95.5	97.9	2.4	82.2	82.2	0.0	2.4	5.4	3.0
X10	56.7	62.4	5.7	54.4	59.6	5.2	103.7	109.0	5.3	86.7	92.4	5.7	17.2	42.4	25.2
X11	90.5	75.0	-15.5	89.8	71.8	-18.0	139.1	121.1	-18.0	131.5	105.5	-26.0	97.2	142.8	45.6
X12	95.9	100.3	4.4	94.7	98.3	3.6	144.0	147.7	3.7	140.0	140.0	0.0	80.2	100.3	20.1
X13	54.3	56.6	2.3	51.9	54.0	2.1	101.3	103.4	2.1	86.3	86.3	0.0	11.0	15.7	4.7
X14	47.1	48.9	1.8	44.7	46.0	1.3	94.1	95.3	1.2	76.7	78.7	2.0	1.1	2.1	1.0
X15	44.4	47.1	2.7	42.6	43.8	1.2	92.0	93.2	1.2	82.7	84.2	1.5	0.7	0.9	0.2
X16	45.3	48.1	2.8	44.5	45.0	0.5	93.8	94.4	0.6	87.7	88.0	0.3	1.1	1.1	0.0
X17	44.5	47.0	2.5	43.7	43.7	0.0	93.0	93.1	0.1	86.6	85.5	-1.1	0.8	1.0	0.2
X18	42.8	45.2	2.4	41.5	41.9	0.4	90.9	91.3	0.4	83.7	83.7	0.0	0.8	1.0	0.2
X19	42.0	44.5	2.5	40.4	41.1	0.7	89.8	90.5	0.7	79.8	80.6	0.8	0.6	0.8	0.2
X20	42.2	44.6	2.4	40.5	41.1	0.6	89.9	90.5	0.6	81.8	81.9	0.1	0.5	0.7	0.2
X21	42.1	44.2	2.1	40.1	40.6	0.5	89.4	90.0	0.6	81.2	81.2	0.0	0.5	0.6	0.1
X22	41.4	43.2	1.8	38.9	39.4	0.5	88.3	88.8	0.5	79.1	79.1	0.0	0.3	0.5	0.2
X23	40.4	42.0	1.6	37.8	38.2	0.4	87.2	87.6	0.4	79.6	79.6	0.0	0.3	0.5	0.2
Y1	38.6	39.4	0.8	36.7	37.5	0.8	86.1	86.9	0.8	72.9	73.1	0.2	0.2	0.2	0.0
Y2	39.4	40.1	0.7	37.7	38.4	0.7	87.1	87.8	0.7	74.0	74.0	0.0	0.3	0.3	0.0
Y3	40.0	40.7	0.7	38.6	39.3	0.7	88.0	88.7	0.7	75.4	75.7	0.3	0.5	0.5	0.0
Y4	40.6	41.4	0.8	39.5	40.3	0.8	88.9	89.6	0.7	78.0	79.0	1.0	0.6	0.6	0.0
Y5	41.1	42.0	0.9	40.1	40.8	0.7	89.5	90.2	0.7	80.8	80.9	0.1	0.6	0.7	0.1
Y6	41.5	42.5	1.0	40.3	41.1	0.8	89.7	90.5	0.8	80.3	80.5	0.2	0.5	0.6	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Y7	42.6	44.0	1.4	41.1	42.1	1.0	90.4	91.4	1.0	84.4	85.0	0.6	0.5	0.6	0.1
Y8	44.9	46.9	2.0	42.8	44.3	1.5	92.2	93.7	1.5	85.1	84.4	-0.7	0.5	1.0	0.5
Y9	49.9	52.8	2.9	47.2	49.8	2.6	96.6	99.2	2.6	81.3	81.3	0.0	3.1	6.5	3.4
Y10	64.2	66.4	2.2	57.8	61.7	3.9	107.2	111.0	3.8	90.1	95.0	4.9	33.4	64.7	31.3
Y11	74.4	74.8	0.4	72.6	72.1	-0.5	122.0	121.4	-0.6	116.0	102.1	-13.9	45.3	160.1	114.8
Y12	67.9	70.3	2.4	65.4	67.4	2.0	114.7	116.8	2.1	102.7	102.7	0.0	49.9	52.7	2.8
Y13	53.6	55.9	2.3	51.4	53.5	2.1	100.8	102.9	2.1	90.4	90.4	0.0	8.8	11.6	2.8
Y14	47.2	48.9	1.7	44.8	46.0	1.2	94.2	95.4	1.2	76.8	76.8	0.0	1.0	1.5	0.5
Y15	44.0	46.1	2.1	42.0	43.0	1.0	91.4	92.4	1.0	79.5	80.7	1.2	0.6	0.8	0.2
Y16	44.3	47.0	2.7	43.2	44.0	0.8	92.6	93.3	0.7	85.1	85.9	0.8	1.0	1.1	0.1
Y17	44.3	47.0	2.7	43.5	43.8	0.3	92.9	93.1	0.2	86.8	86.3	-0.5	0.7	0.8	0.1
Y18	43.1	45.4	2.3	42.0	42.2	0.2	91.4	91.5	0.1	83.2	83.2	0.0	0.7	0.9	0.2
Y19	41.6	44.0	2.4	40.1	40.7	0.6	89.5	90.0	0.5	79.1	79.1	0.0	0.6	0.8	0.2
Y20	41.6	44.0	2.4	39.9	40.6	0.7	89.3	89.9	0.6	79.9	80.3	0.4	0.5	0.7	0.2
Y21	41.6	43.8	2.2	39.8	40.4	0.6	89.2	89.8	0.6	80.9	80.7	-0.2	0.4	0.6	0.2
Y22	41.1	43.1	2.0	39.0	39.5	0.5	88.4	88.9	0.5	79.7	79.2	-0.5	0.3	0.5	0.2
Y23	40.2	41.9	1.7	37.9	38.2	0.3	87.2	87.6	0.4	78.9	78.9	0.0	0.3	0.4	0.1
Z1	38.4	39.3	0.9	36.4	37.2	0.8	85.7	86.5	0.8	72.5	72.6	0.1	0.2	0.2	0.0
Z2	39.2	39.8	0.6	37.4	38.0	0.6	86.8	87.3	0.5	74.1	74.1	0.0	0.3	0.3	0.0
Z3	39.8	40.4	0.6	38.2	38.8	0.6	87.6	88.1	0.5	74.7	75.0	0.3	0.5	0.5	0.0
Z4	40.1	40.9	0.8	38.9	39.5	0.6	88.3	88.9	0.6	76.6	77.6	1.0	0.6	0.6	0.0
Z5	40.5	41.4	0.9	39.5	40.1	0.6	88.8	89.5	0.7	79.6	79.9	0.3	0.5	0.6	0.1
Z6	41.0	42.0	1.0	39.8	40.6	0.8	89.2	89.9	0.7	79.8	79.3	-0.5	0.5	0.5	0.0
Z7	42.1	43.5	1.4	40.6	41.6	1.0	90.0	91.0	1.0	82.5	83.5	1.0	0.5	0.6	0.1
Z8	44.4	46.4	2.0	42.5	44.0	1.5	91.8	93.4	1.6	84.6	84.3	-0.3	0.8	1.3	0.5
Z9	48.8	51.7	2.9	46.6	49.0	2.4	95.9	98.4	2.5	81.9	82.5	0.6	2.2	4.1	1.9
Z10	55.5	59.8	4.3	54.0	57.6	3.6	103.4	107.0	3.6	92.2	95.8	3.6	12.2	18.2	6.0
Z11	68.4	65.2	-3.2	66.0	62.0	-4.0	115.3	111.3	-4.0	104.8	97.7	-7.1	33.8	39.4	5.6
Z12	64.8	67.2	2.4	62.3	64.2	1.9	111.7	113.6	1.9	97.8	97.8	0.0	38.6	47.0	8.4
Z13	52.4	54.9	2.5	50.5	52.7	2.2	99.8	102.0	2.2	92.6	92.6	0.0	5.8	7.6	1.8
Z14	46.6	48.2	1.6	44.2	45.5	1.3	93.6	94.8	1.2	79.4	79.4	0.0	1.1	1.5	0.4

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Z15	43.8	45.3	1.5	41.3	42.2	0.9	90.7	91.6	0.9	76.5	77.6	1.1	0.6	0.9	0.3
Z16	43.6	45.8	2.2	41.9	42.7	0.8	91.2	92.0	0.8	81.5	82.7	1.2	0.8	0.9	0.1
Z17	43.9	46.6	2.7	42.7	43.3	0.6	92.1	92.6	0.5	85.6	85.8	0.2	0.6	0.8	0.2
Z18	43.6	45.9	2.3	42.4	42.6	0.2	91.7	91.9	0.2	84.8	84.0	-0.8	0.7	0.9	0.2
Z19	42.2	44.3	2.1	40.5	40.8	0.3	89.9	90.2	0.3	79.8	78.8	-1.0	0.6	0.8	0.2
Z20	41.7	43.7	2.0	39.7	40.2	0.5	89.1	89.6	0.5	78.5	78.5	0.0	0.5	0.6	0.1
Z21	41.5	43.5	2.0	39.5	40.0	0.5	88.9	89.4	0.5	79.8	79.8	0.0	0.4	0.5	0.1
Z22	41.1	43.0	1.9	39.0	39.5	0.5	88.4	88.8	0.4	79.7	79.5	-0.2	0.4	0.5	0.1
Z23	40.4	42.1	1.7	38.1	38.4	0.3	87.5	87.8	0.3	78.3	77.9	-0.4	0.3	0.4	0.1
AA1	38.6	39.5	0.9	36.6	37.4	0.8	85.9	86.8	0.9	74.9	74.8	-0.1	0.2	0.2	0.0
AA2	39.3	39.9	0.6	37.4	37.9	0.5	86.7	87.3	0.6	74.1	73.9	-0.2	0.3	0.3	0.0
AA3	39.8	40.3	0.5	38.1	38.5	0.4	87.4	87.8	0.4	76.0	76.0	0.0	0.4	0.4	0.0
AA4	39.9	40.5	0.6	38.4	39.0	0.6	87.8	88.4	0.6	75.3	76.3	1.0	0.5	0.5	0.0
AA5	40.0	40.9	0.9	38.9	39.6	0.7	88.2	88.9	0.7	78.5	78.9	0.4	0.5	0.5	0.0
AA6	40.5	41.5	1.0	39.3	40.1	0.8	88.7	89.5	0.8	79.2	78.9	-0.3	0.5	0.6	0.1
AA7	41.5	42.9	1.4	40.1	41.2	1.1	89.5	90.5	1.0	80.4	81.6	1.2	0.6	0.7	0.1
AA8	43.5	45.5	2.0	41.8	43.3	1.5	91.2	92.7	1.5	83.6	83.7	0.1	0.7	1.2	0.5
AA9	47.2	50.2	3.0	45.5	48.0	2.5	94.9	97.4	2.5	82.7	85.6	2.9	1.7	2.9	1.2
AA10	54.2	58.2	4.0	52.8	56.1	3.3	102.2	105.5	3.3	94.7	95.6	0.9	6.9	12.5	5.6
AA11	65.8	63.8	-2.0	63.4	60.6	-2.8	112.7	109.9	-2.8	97.6	95.7	-1.9	31.7	36.9	5.2
AA12	63.1	65.4	2.3	60.6	62.4	1.8	110.0	111.8	1.8	96.0	96.0	0.0	33.2	42.5	9.3
AA13	51.9	54.4	2.5	49.9	52.1	2.2	99.3	101.5	2.2	94.3	94.3	0.0	5.4	6.8	1.4
AA14	47.5	48.5	1.0	44.4	45.4	1.0	93.8	94.7	0.9	81.4	81.4	0.0	1.5	1.8	0.3
AA15	45.7	46.3	0.6	42.4	42.9	0.5	91.8	92.2	0.4	79.0	79.0	0.0	1.2	1.3	0.1
AA16	44.8	45.8	1.0	41.7	42.1	0.4	91.0	91.4	0.4	78.5	79.6	1.1	1.0	1.0	0.0
AA17	44.8	46.6	1.8	42.5	42.9	0.4	91.8	92.3	0.5	83.6	84.2	0.6	1.0	1.1	0.1
AA18	44.6	46.4	1.8	42.7	42.9	0.2	92.1	92.3	0.2	85.0	84.6	-0.4	0.9	1.1	0.2
AA19	43.7	45.3	1.6	41.5	41.6	0.1	90.9	91.0	0.1	82.0	80.8	-1.2	0.8	1.0	0.2
AA20	42.9	44.2	1.3	40.3	40.5	0.2	89.7	89.9	0.2	77.4	77.4	0.0	0.7	0.8	0.1
AA21	42.3	43.7	1.4	39.7	40.1	0.4	89.1	89.4	0.3	79.0	79.0	0.0	0.6	0.6	0.0
AA22	41.8	43.3	1.5	39.2	39.6	0.4	88.6	89.0	0.4	78.7	78.8	0.1	0.4	0.5	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AA23	41.3	42.7	1.4	38.6	38.9	0.3	88.0	88.3	0.3	78.6	78.3	-0.3	0.4	0.4	0.0
AB1	38.8	39.9	1.1	36.7	37.8	1.1	86.1	87.1	1.0	77.8	78.0	0.2	0.2	0.2	0.0
AB2	39.7	40.4	0.7	37.7	38.4	0.7	87.1	87.8	0.7	78.5	78.6	0.1	0.3	0.3	0.0
AB3	40.3	40.8	0.5	38.5	39.0	0.5	87.9	88.4	0.5	78.8	78.8	0.0	0.4	0.4	0.0
AB4	40.3	40.9	0.6	38.8	39.4	0.6	88.2	88.7	0.5	78.3	78.0	-0.3	0.5	0.5	0.0
AB5	40.2	41.0	0.8	39.0	39.7	0.7	88.3	89.1	0.8	77.5	77.9	0.4	0.5	0.5	0.0
AB6	40.5	41.5	1.0	39.3	40.2	0.9	88.7	89.6	0.9	78.5	78.4	-0.1	0.5	0.6	0.1
AB7	41.3	42.8	1.5	40.0	41.2	1.2	89.4	90.6	1.2	78.5	79.6	1.1	0.5	0.6	0.1
AB8	43.5	45.5	2.0	42.0	43.8	1.8	91.4	93.2	1.8	82.4	83.0	0.6	0.7	1.1	0.4
AB9	47.4	50.1	2.7	46.0	48.3	2.3	95.4	97.6	2.2	88.3	89.6	1.3	1.8	3.2	1.4
AB10	53.1	56.7	3.6	51.5	54.3	2.8	100.9	103.7	2.8	91.5	90.9	-0.6	6.3	11.6	5.3
AB11	64.3	62.3	-2.0	61.7	59.1	-2.6	111.1	108.5	-2.6	94.2	92.2	-2.0	29.0	34.5	5.5
AB12	62.2	64.3	2.1	59.6	61.1	1.5	108.9	110.5	1.6	92.7	92.7	0.0	31.0	39.8	8.8
AB13	51.9	54.1	2.2	49.7	51.5	1.8	99.1	100.9	1.8	91.8	91.8	0.0	5.6	7.2	1.6
AB14	47.3	48.5	1.2	44.4	45.4	1.0	93.7	94.7	1.0	84.2	83.3	-0.9	1.7	2.1	0.4
AB15	45.4	46.1	0.7	42.0	42.6	0.6	91.4	92.0	0.6	79.3	78.6	-0.7	1.1	1.5	0.4
AB16	44.5	45.3	0.8	41.4	41.7	0.3	90.8	91.1	0.3	81.6	79.8	-1.8	1.0	1.2	0.2
AB17	44.3	45.8	1.5	41.6	42.1	0.5	90.9	91.5	0.6	81.3	81.6	0.3	0.9	1.1	0.2
AB18	44.3	46.1	1.8	42.1	42.6	0.5	91.5	91.9	0.4	84.0	84.2	0.2	0.9	1.1	0.2
AB19	43.9	45.5	1.6	41.8	42.0	0.2	91.2	91.4	0.2	83.2	82.6	-0.6	0.8	0.9	0.1
AB20	43.2	44.4	1.2	40.7	40.8	0.1	90.0	90.1	0.1	79.0	77.8	-1.2	0.6	0.7	0.1
AB21	42.2	43.5	1.3	39.5	39.8	0.3	88.9	89.2	0.3	78.1	78.1	0.0	0.5	0.6	0.1
AB22	41.7	43.0	1.3	39.0	39.4	0.4	88.3	88.7	0.4	77.9	77.9	0.0	0.4	0.5	0.1
AB23	41.2	42.5	1.3	38.5	38.8	0.3	87.8	88.2	0.4	78.0	77.9	-0.1	0.4	0.5	0.1
AC1	38.5	39.7	1.2	36.2	37.4	1.2	85.6	86.8	1.2	77.4	77.8	0.4	0.2	0.2	0.0
AC2	39.8	40.6	0.8	37.6	38.6	1.0	87.0	88.0	1.0	79.2	79.6	0.4	0.3	0.3	0.0
AC3	40.6	41.3	0.7	38.8	39.6	0.8	88.2	89.0	0.8	80.9	81.3	0.4	0.4	0.4	0.0
AC4	41.3	42.0	0.7	39.7	40.5	0.8	89.1	89.9	0.8	82.1	82.3	0.2	0.5	0.6	0.1
AC5	41.4	42.3	0.9	40.2	41.1	0.9	89.6	90.5	0.9	82.6	82.7	0.1	0.5	0.6	0.1
AC6	41.8	42.9	1.1	40.7	41.8	1.1	90.0	91.2	1.2	83.3	83.4	0.1	0.5	0.6	0.1
AC7	42.8	44.2	1.4	41.7	43.0	1.3	91.1	92.4	1.3	84.4	85.1	0.7	0.6	0.7	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AC8	44.6	46.4	1.8	43.4	45.0	1.6	92.7	94.4	1.7	86.7	87.1	0.4	0.9	1.4	0.5
AC9	47.2	49.5	2.3	45.8	47.6	1.8	95.2	96.9	1.7	87.6	87.2	-0.4	2.0	3.2	1.2
AC10	52.2	55.9	3.7	50.4	53.3	2.9	99.8	102.6	2.8	87.0	88.4	1.4	5.6	11.9	6.3
AC11	62.5	61.5	-1.0	59.8	58.5	-1.3	109.2	107.9	-1.3	91.1	90.0	-1.1	27.1	32.7	5.6
AC12	60.2	62.2	2.0	57.6	59.1	1.5	106.9	108.4	1.5	89.4	89.4	0.0	27.7	35.4	7.7
AC13	51.3	54.1	2.8	49.7	51.4	1.7	99.0	100.8	1.8	89.2	89.2	0.0	5.8	8.0	2.2
AC14	45.7	47.6	1.9	43.8	44.9	1.1	93.2	94.3	1.1	83.8	83.2	-0.6	1.2	1.7	0.5
AC15	43.3	44.5	1.2	41.0	41.5	0.5	90.3	90.8	0.5	84.3	83.3	-1.0	0.6	0.8	0.2
AC16	42.3	43.4	1.1	39.7	40.1	0.4	89.1	89.5	0.4	84.1	82.8	-1.3	0.6	0.6	0.0
AC17	41.9	43.7	1.8	39.5	40.2	0.7	88.9	89.5	0.6	80.2	79.6	-0.6	0.5	0.6	0.1
AC18	42.5	44.7	2.2	40.6	41.3	0.7	90.0	90.6	0.6	82.2	82.7	0.5	0.6	0.7	0.1
AC19	43.0	44.9	1.9	41.2	41.4	0.2	90.5	90.8	0.3	83.3	83.0	-0.3	0.6	0.7	0.1
AC20	42.6	44.0	1.4	40.4	40.5	0.1	89.8	89.8	0.0	80.9	79.8	-1.1	0.5	0.6	0.1
AC21	41.4	42.7	1.3	38.9	39.1	0.2	88.3	88.5	0.2	77.2	77.2	0.0	0.3	0.4	0.1
AC22	40.6	42.0	1.4	38.0	38.4	0.4	87.4	87.8	0.4	77.4	77.4	0.0	0.3	0.3	0.0
AC23	39.9	41.5	1.6	37.5	37.9	0.4	86.8	87.2	0.4	76.7	76.9	0.2	0.3	0.3	0.0
AD1	37.6	38.9	1.3	34.9	36.2	1.3	84.3	85.6	1.3	73.2	73.7	0.5	0.1	0.2	0.1
AD2	39.2	40.1	0.9	36.6	37.5	0.9	86.0	86.9	0.9	75.5	76.1	0.6	0.3	0.3	0.0
AD3	39.8	40.5	0.7	37.7	38.5	0.8	87.1	87.9	0.8	78.0	78.6	0.6	0.4	0.4	0.0
AD4	40.7	41.4	0.7	38.9	39.7	0.8	88.3	89.1	0.8	80.4	80.9	0.5	0.4	0.5	0.1
AD5	41.5	42.4	0.9	40.0	41.0	1.0	89.4	90.3	0.9	82.4	82.7	0.3	0.5	0.6	0.1
AD6	42.0	43.1	1.1	40.8	41.9	1.1	90.1	91.2	1.1	83.9	84.2	0.3	0.5	0.7	0.2
AD7	42.7	43.9	1.2	41.5	42.7	1.2	90.9	92.1	1.2	85.1	84.9	-0.2	0.6	0.8	0.2
AD8	43.8	45.2	1.4	42.5	43.6	1.1	91.9	92.9	1.0	84.1	83.4	-0.7	1.0	1.3	0.3
AD9	46.0	48.6	2.6	44.3	46.4	2.1	93.7	95.8	2.1	81.5	81.4	-0.1	1.7	2.8	1.1
AD10	52.0	55.4	3.4	50.0	52.6	2.6	99.4	102.0	2.6	86.6	87.0	0.4	5.3	11.9	6.6
AD11	61.0	60.2	-0.8	58.2	57.0	-1.2	107.6	106.4	-1.2	88.5	88.3	-0.2	24.3	29.9	5.6
AD12	59.1	61.0	1.9	56.4	57.8	1.4	105.7	107.2	1.5	87.6	87.6	0.0	26.0	33.0	7.0
AD13	51.6	54.9	3.3	50.0	51.9	1.9	99.4	101.3	1.9	87.3	87.3	0.0	5.9	8.4	2.5
AD14	46.5	48.7	2.2	44.9	46.0	1.1	94.3	95.4	1.1	84.4	84.2	-0.2	1.6	2.3	0.7
AD15	42.9	44.6	1.7	41.0	41.9	0.9	90.4	91.2	0.8	81.3	80.4	-0.9	0.7	1.0	0.3

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AD16	41.4	43.0	1.6	39.4	40.1	0.7	88.8	89.4	0.6	78.4	77.8	-0.6	0.5	0.7	0.2
AD17	40.9	42.8	1.9	38.9	39.6	0.7	88.3	89.0	0.7	78.9	78.9	0.0	0.5	0.6	0.1
AD18	41.4	43.6	2.2	39.6	40.3	0.7	89.0	89.7	0.7	79.5	80.5	1.0	0.5	0.6	0.1
AD19	42.0	44.2	2.2	40.3	40.8	0.5	89.7	90.1	0.4	82.3	82.5	0.2	0.5	0.6	0.1
AD20	42.0	43.7	1.7	40.0	40.3	0.3	89.4	89.6	0.2	81.7	81.1	-0.6	0.4	0.6	0.2
AD21	40.9	42.4	1.5	38.8	38.9	0.1	88.1	88.3	0.2	78.1	77.0	-1.1	0.3	0.4	0.1
AD22	39.8	41.4	1.6	37.5	37.8	0.3	86.8	87.2	0.4	76.9	76.9	0.0	0.2	0.3	0.1
AD23	39.0	40.7	1.7	36.6	37.1	0.5	86.0	86.4	0.4	75.7	75.7	0.0	0.2	0.3	0.1
AE1	37.4	38.7	1.3	34.5	35.8	1.3	83.9	85.2	1.3	69.3	69.3	0.0	0.1	0.2	0.1
AE2	39.1	40.0	0.9	36.2	37.0	0.8	85.5	86.4	0.9	70.9	71.6	0.7	0.3	0.3	0.0
AE3	39.2	39.9	0.7	36.8	37.4	0.6	86.1	86.8	0.7	72.6	72.6	0.0	0.3	0.4	0.1
AE4	39.3	40.1	0.8	37.3	38.1	0.8	86.7	87.5	0.8	75.0	75.0	0.0	0.4	0.4	0.0
AE5	40.2	41.1	0.9	38.4	39.3	0.9	87.8	88.6	0.8	79.4	79.4	0.0	0.4	0.5	0.1
AE6	41.3	42.2	0.9	39.7	40.4	0.7	89.0	89.8	0.8	81.5	81.5	0.0	0.5	0.7	0.2
AE7	42.3	43.2	0.9	40.7	41.4	0.7	90.0	90.8	0.8	81.4	81.4	0.0	0.8	0.9	0.1
AE8	43.5	45.1	1.6	41.7	43.0	1.3	91.0	92.4	1.4	82.6	82.6	0.0	0.9	1.3	0.4
AE9	46.6	48.8	2.2	44.6	46.5	1.9	94.0	95.9	1.9	84.3	84.4	0.1	1.7	2.7	1.0
AE10	51.6	54.9	3.3	49.5	52.0	2.5	98.9	101.4	2.5	85.8	86.2	0.4	4.8	11.6	6.8
AE11	59.6	59.2	-0.4	56.8	55.9	-0.9	106.2	105.2	-1.0	86.5	86.2	-0.3	23.4	25.9	2.5
AE12	58.0	59.8	1.8	55.3	56.6	1.3	104.7	106.0	1.3	86.5	86.5	0.0	26.1	31.8	5.7
AE13	50.2	52.7	2.5	48.4	50.1	1.7	97.8	99.5	1.7	86.2	86.2	0.0	3.7	5.3	1.6
AE14	47.9	51.5	3.6	46.5	48.2	1.7	95.9	97.5	1.6	85.4	84.9	-0.5	3.2	4.5	1.3
AE15	44.2	46.2	2.0	42.7	43.5	0.8	92.0	92.9	0.9	84.5	84.3	-0.2	1.0	1.3	0.3
AE16	42.5	44.1	1.6	40.8	41.4	0.6	90.1	90.8	0.7	83.4	83.0	-0.4	0.7	0.8	0.1
AE17	41.4	43.2	1.8	39.6	40.3	0.7	89.0	89.7	0.7	81.8	81.3	-0.5	0.6	0.7	0.1
AE18	41.1	43.3	2.2	39.2	40.1	0.9	88.6	89.4	0.8	79.7	79.2	-0.5	0.6	0.7	0.1
AE19	41.7	43.9	2.2	39.8	40.6	0.8	89.1	89.9	0.8	80.7	81.1	0.4	0.5	0.6	0.1
AE20	42.0	43.8	1.8	40.0	40.4	0.4	89.4	89.8	0.4	81.5	81.2	-0.3	0.5	0.6	0.1
AE21	41.2	42.7	1.5	39.2	39.4	0.2	88.6	88.7	0.1	79.6	78.7	-0.9	0.4	0.5	0.1
AE22	40.0	41.4	1.4	37.7	37.9	0.2	87.1	87.3	0.2	76.3	76.3	0.0	0.3	0.4	0.1
AE23	38.9	40.4	1.5	36.5	36.9	0.4	85.9	86.2	0.3	75.5	75.5	0.0	0.2	0.3	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AF1	37.8	39.2	1.4	35.1	36.4	1.3	84.5	85.7	1.2	73.3	73.3	0.0	0.2	0.2	0.0
AF2	39.7	40.7	1.0	36.7	37.6	0.9	86.0	87.0	1.0	74.8	74.8	0.0	0.3	0.3	0.0
AF3	40.0	40.6	0.6	37.3	37.9	0.6	86.7	87.3	0.6	76.4	76.4	0.0	0.3	0.4	0.1
AF4	39.7	40.5	0.8	37.6	38.3	0.7	86.9	87.7	0.8	77.8	78.2	0.4	0.4	0.4	0.0
AF5	40.1	41.0	0.9	38.3	39.2	0.9	87.7	88.6	0.9	79.8	80.2	0.4	0.5	0.5	0.0
AF6	41.1	42.0	0.9	39.4	40.1	0.7	88.8	89.5	0.7	81.4	81.7	0.3	0.6	0.7	0.1
AF7	42.0	43.1	1.1	40.2	41.1	0.9	89.6	90.5	0.9	82.6	82.8	0.2	0.6	0.7	0.1
AF8	43.4	44.9	1.5	41.5	42.9	1.4	90.9	92.2	1.3	83.0	82.7	-0.3	0.8	1.1	0.3
AF9	45.9	48.2	2.3	44.1	46.1	2.0	93.5	95.4	1.9	82.7	83.7	1.0	1.5	2.5	1.0
AF10	50.9	54.2	3.3	48.7	51.3	2.6	98.1	100.7	2.6	85.2	85.2	0.0	4.4	10.7	6.3
AF11	58.5	58.2	-0.3	55.6	54.8	-0.8	105.0	104.2	-0.8	85.3	85.3	0.0	21.0	22.4	1.4
AF12	56.6	58.5	1.9	54.1	55.5	1.4	103.5	104.9	1.4	85.4	85.4	0.0	21.8	27.6	5.8
AF13	49.3	51.6	2.3	47.4	49.0	1.6	96.8	98.4	1.6	85.4	85.4	0.0	2.9	4.0	1.1
AF14	46.1	48.2	2.1	44.5	45.5	1.0	93.9	94.9	1.0	84.6	84.6	0.0	1.4	2.0	0.6
AF15	45.6	48.8	3.2	44.1	45.3	1.2	93.4	94.7	1.3	83.5	82.4	-1.1	2.2	3.0	0.8
AF16	43.5	46.2	2.7	41.8	42.9	1.1	91.2	92.2	1.0	81.7	81.7	0.0	0.9	1.1	0.2
AF17	42.1	44.1	2.0	40.1	41.0	0.9	89.5	90.4	0.9	81.6	81.4	-0.2	0.6	0.8	0.2
AF18	41.7	43.6	1.9	39.6	40.5	0.9	89.0	89.8	0.8	80.7	80.4	-0.3	0.6	0.7	0.1
AF19	42.0	44.0	2.0	39.8	40.7	0.9	89.2	90.1	0.9	79.6	79.3	-0.3	0.5	0.6	0.1
AF20	42.2	43.8	1.6	40.1	40.5	0.4	89.4	89.9	0.5	80.5	80.5	0.0	0.5	0.6	0.1
AF21	41.6	43.1	1.5	39.6	39.9	0.3	89.0	89.2	0.2	79.9	79.4	-0.5	0.4	0.5	0.1
AF22	40.6	41.9	1.3	38.4	38.6	0.2	87.8	88.0	0.2	77.1	76.2	-0.9	0.4	0.4	0.0
AF23	39.4	40.6	1.2	37.0	37.2	0.2	86.4	86.6	0.2	75.3	75.3	0.0	0.3	0.3	0.0
AG1	38.6	39.7	1.1	35.9	37.0	1.1	85.3	86.3	1.0	76.6	76.8	0.2	0.2	0.3	0.1
AG2	40.2	41.4	1.2	37.3	38.3	1.0	86.7	87.7	1.0	77.6	77.8	0.2	0.3	0.3	0.0
AG3	41.0	41.6	0.6	38.2	38.8	0.6	87.5	88.2	0.7	78.5	78.7	0.2	0.4	0.4	0.0
AG4	40.6	41.2	0.6	38.3	38.9	0.6	87.7	88.3	0.6	79.2	79.3	0.1	0.4	0.4	0.0
AG5	40.3	41.1	0.8	38.5	39.2	0.7	87.8	88.6	0.8	79.5	79.3	-0.2	0.4	0.4	0.0
AG6	40.4	41.4	1.0	38.6	39.6	1.0	88.0	89.0	1.0	78.4	78.1	-0.3	0.4	0.5	0.1
AG7	41.1	42.5	1.4	39.3	40.6	1.3	88.7	90.0	1.3	78.3	79.3	1.0	0.4	0.5	0.1
AG8	42.8	44.6	1.8	41.0	42.6	1.6	90.4	92.0	1.6	81.6	82.2	0.6	0.7	0.9	0.2

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AG9	45.6	47.8	2.2	43.7	45.5	1.8	93.1	94.9	1.8	83.8	83.9	0.1	1.4	2.2	0.8
AG10	50.6	53.8	3.2	48.3	50.7	2.4	97.7	100.1	2.4	84.0	84.3	0.3	4.0	9.8	5.8
AG11	56.9	57.0	0.1	54.1	53.6	-0.5	103.5	103.0	-0.5	84.4	84.4	0.0	17.9	18.2	0.3
AG12	55.3	57.3	2.0	52.7	54.3	1.6	102.1	103.7	1.6	84.6	84.6	0.0	18.1	23.0	4.9
AG13	48.6	50.9	2.3	46.7	48.3	1.6	96.1	97.7	1.6	84.5	84.5	0.0	2.4	3.5	1.1
AG14	44.9	47.0	2.1	43.2	44.4	1.2	92.6	93.8	1.2	84.2	84.2	0.0	1.1	1.5	0.4
AG15	43.8	45.1	1.3	42.1	42.4	0.3	91.5	91.8	0.3	83.5	83.3	-0.2	0.8	1.0	0.2
AG16	43.0	44.5	1.5	41.3	41.5	0.2	90.6	90.8	0.2	81.1	79.9	-1.2	0.6	0.8	0.2
AG17	42.6	45.3	2.7	40.8	41.7	0.9	90.2	91.1	0.9	79.3	79.1	-0.2	0.7	0.9	0.2
AG18	42.3	45.1	2.8	40.3	41.5	1.2	89.7	90.9	1.2	78.7	78.4	-0.3	0.6	0.9	0.3
AG19	42.3	44.8	2.5	40.1	41.2	1.1	89.5	90.6	1.1	78.0	77.8	-0.2	0.5	0.8	0.3
AG20	42.0	43.9	1.9	39.9	40.5	0.6	89.3	89.9	0.6	79.0	79.3	0.3	0.5	0.6	0.1
AG21	41.5	43.2	1.7	39.6	40.0	0.4	89.0	89.3	0.3	79.6	79.4	-0.2	0.4	0.5	0.1
AG22	40.7	42.3	1.6	38.7	39.0	0.3	88.1	88.4	0.3	78.1	77.6	-0.5	0.4	0.4	0.0
AG23	39.6	40.9	1.3	37.3	37.6	0.3	86.7	87.0	0.3	75.2	75.1	-0.1	0.3	0.4	0.1
AH1	38.4	39.3	0.9	35.7	36.6	0.9	85.0	86.0	1.0	74.9	74.8	-0.1	0.2	0.2	0.0
AH2	39.7	41.1	1.4	36.8	38.0	1.2	86.1	87.4	1.3	74.7	74.9	0.2	0.3	0.3	0.0
AH3	41.3	42.2	0.9	38.2	39.0	0.8	87.6	88.4	0.8	75.9	76.2	0.3	0.4	0.4	0.0
AH4	41.2	41.9	0.7	38.5	39.1	0.6	87.9	88.5	0.6	77.1	77.3	0.2	0.4	0.4	0.0
AH5	40.6	41.5	0.9	38.3	39.2	0.9	87.7	88.6	0.9	78.2	78.5	0.3	0.4	0.4	0.0
AH6	40.6	41.9	1.3	38.6	39.9	1.3	88.0	89.2	1.2	79.5	79.8	0.3	0.4	0.5	0.1
AH7	41.4	42.9	1.5	39.6	40.9	1.3	89.0	90.3	1.3	81.0	81.4	0.4	0.4	0.5	0.1
AH8	43.0	44.7	1.7	41.1	42.5	1.4	90.5	91.9	1.4	82.2	82.1	-0.1	0.7	1.0	0.3
AH9	45.9	48.1	2.2	43.8	45.5	1.7	93.2	94.8	1.6	83.0	84.9	1.9	1.4	2.1	0.7
AH10	50.9	53.6	2.7	48.3	50.4	2.1	97.7	99.8	2.1	88.6	88.8	0.2	4.3	9.3	5.0
AH11	55.4	55.8	0.4	52.8	52.5	-0.3	102.1	101.9	-0.2	88.7	88.7	0.0	14.6	13.1	-1.5
AH12	54.1	55.9	1.8	51.5	52.8	1.3	100.9	102.2	1.3	88.6	89.0	0.4	10.5	13.0	2.5
AH13	48.6	50.6	2.0	46.8	48.0	1.2	96.2	97.4	1.2	88.8	88.8	0.0	2.5	3.1	0.6
AH14	44.2	46.5	2.3	42.5	44.0	1.5	91.9	93.4	1.5	89.1	89.1	0.0	1.0	1.4	0.4
AH15	42.4	44.1	1.7	40.9	41.7	0.8	90.2	91.1	0.9	84.6	84.6	0.0	0.7	0.9	0.2
AH16	41.7	42.9	1.2	40.1	40.4	0.3	89.5	89.7	0.2	81.7	81.1	-0.6	0.6	0.7	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AH17	40.8	42.2	1.4	38.9	39.3	0.4	88.2	88.6	0.4	78.2	76.8	-1.4	0.4	0.5	0.1
AH18	40.7	42.6	1.9	38.2	39.2	1.0	87.6	88.5	0.9	76.8	76.8	0.0	0.3	0.4	0.1
AH19	41.3	43.1	1.8	38.7	39.5	0.8	88.1	88.8	0.7	75.7	75.7	0.0	0.4	0.6	0.2
AH20	41.2	43.4	2.2	39.1	39.9	0.8	88.5	89.3	0.8	77.2	77.8	0.6	0.4	0.6	0.2
AH21	41.2	43.6	2.4	39.4	40.2	0.8	88.8	89.5	0.7	78.8	78.8	0.0	0.4	0.6	0.2
AH22	40.8	42.9	2.1	38.9	39.6	0.7	88.3	89.0	0.7	78.4	78.0	-0.4	0.4	0.5	0.1
AH23	39.7	41.6	1.9	37.7	38.3	0.6	87.1	87.6	0.5	76.2	75.4	-0.8	0.3	0.4	0.1
AI1	37.8	38.6	0.8	34.8	35.7	0.9	84.2	85.1	0.9	73.9	73.9	0.0	0.2	0.2	0.0
AI2	38.8	40.1	1.3	35.9	37.0	1.1	85.3	86.4	1.1	74.6	74.6	0.0	0.2	0.2	0.0
AI3	41.1	42.4	1.3	37.9	38.9	1.0	87.2	88.3	1.1	74.4	74.4	0.0	0.4	0.5	0.1
AI4	42.1	43.0	0.9	38.8	39.6	0.8	88.2	89.0	0.8	76.1	76.3	0.2	0.4	0.5	0.1
AI5	42.0	42.9	0.9	39.1	39.8	0.7	88.5	89.2	0.7	76.8	77.0	0.2	0.4	0.5	0.1
AI6	42.0	43.1	1.1	39.4	40.3	0.9	88.8	89.6	0.8	77.9	78.1	0.2	0.5	0.5	0.0
AI7	42.7	44.0	1.3	40.2	41.2	1.0	89.6	90.6	1.0	79.5	79.5	0.0	0.6	0.7	0.1
AI8	44.6	46.2	1.6	42.0	43.2	1.2	91.3	92.6	1.3	81.4	81.4	0.0	1.0	1.4	0.4
AI9	47.5	49.4	1.9	44.8	46.3	1.5	94.2	95.7	1.5	83.3	85.1	1.8	2.1	3.1	1.0
AI10	50.7	52.7	2.0	48.3	49.9	1.6	97.6	99.2	1.6	88.4	88.4	0.0	4.1	8.0	3.9
AI11	54.2	54.7	0.5	51.9	51.8	-0.1	101.3	101.1	-0.2	88.5	88.5	0.0	10.3	10.0	-0.3
AI12	53.2	55.0	1.8	50.8	52.0	1.2	100.2	101.4	1.2	88.8	88.8	0.0	8.0	10.1	2.1
AI13	49.6	51.0	1.4	47.7	48.4	0.7	97.0	97.7	0.7	88.5	88.5	0.0	3.6	4.1	0.5
AI14	45.2	46.9	1.7	43.2	44.3	1.1	92.6	93.6	1.0	88.3	88.3	0.0	1.2	1.6	0.4
AI15	42.7	44.4	1.7	40.7	41.8	1.1	90.1	91.2	1.1	85.3	85.3	0.0	0.6	0.8	0.2
AI16	42.1	43.4	1.3	40.1	40.7	0.6	89.5	90.1	0.6	80.3	80.3	0.0	0.5	0.7	0.2
AI17	41.9	43.1	1.2	39.6	40.1	0.5	89.0	89.4	0.4	79.4	78.6	-0.8	0.5	0.7	0.2
AI18	41.4	42.3	0.9	38.8	39.0	0.2	88.1	88.4	0.3	77.5	76.8	-0.7	0.5	0.5	0.0
AI19	40.3	41.3	1.0	37.9	38.1	0.2	87.3	87.5	0.2	76.7	75.6	-1.1	0.2	0.3	0.1
AI20	40.1	41.6	1.5	38.0	38.3	0.3	87.4	87.7	0.3	75.4	75.8	0.4	0.3	0.4	0.1
AI21	40.0	41.8	1.8	38.0	38.5	0.5	87.4	87.9	0.5	77.6	77.8	0.2	0.3	0.4	0.1
AI22	39.8	41.6	1.8	37.8	38.3	0.5	87.2	87.7	0.5	78.0	77.9	-0.1	0.3	0.3	0.0
AI23	39.2	41.1	1.9	37.2	37.8	0.6	86.6	87.2	0.6	76.8	76.3	-0.5	0.2	0.3	0.1
AJ1	37.6	38.4	0.8	34.4	35.3	0.9	83.8	84.6	0.8	71.7	71.7	0.0	0.1	0.1	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AJ2	37.9	38.8	0.9	35.0	35.8	0.8	84.4	85.2	0.8	73.9	73.9	0.0	0.2	0.2	0.0
AJ3	39.2	40.5	1.3	36.1	37.1	1.0	85.5	86.5	1.0	75.7	75.7	0.0	0.2	0.2	0.0
AJ4	41.3	42.7	1.4	37.9	39.0	1.1	87.3	88.4	1.1	76.6	76.6	0.0	0.3	0.5	0.2
AJ5	43.0	44.2	1.2	39.5	40.4	0.9	88.9	89.8	0.9	77.6	77.6	0.0	0.7	1.0	0.3
AJ6	43.9	45.0	1.1	40.5	41.3	0.8	89.9	90.6	0.7	78.7	78.7	0.0	0.8	1.3	0.5
AJ7	44.8	46.0	1.2	41.5	42.3	0.8	90.8	91.7	0.9	79.5	79.7	0.2	1.1	1.7	0.6
AJ8	46.0	47.1	1.1	42.6	43.6	1.0	92.0	92.9	0.9	80.3	80.6	0.3	1.6	2.2	0.6
AJ9	46.8	48.0	1.2	44.0	45.2	1.2	93.4	94.6	1.2	83.2	84.9	1.7	1.9	2.4	0.5
AJ10	49.4	51.7	2.3	47.3	49.0	1.7	96.6	98.3	1.7	87.3	87.3	0.0	3.2	6.1	2.9
AJ11	52.9	53.6	0.7	50.7	50.7	0.0	100.0	100.0	0.0	87.4	87.4	0.0	7.7	7.6	-0.1
AJ12	52.0	53.7	1.7	49.6	50.7	1.1	99.0	100.1	1.1	87.6	87.6	0.0	5.4	7.0	1.6
AJ13	48.6	50.4	1.8	46.8	47.8	1.0	96.2	97.2	1.0	87.2	87.2	0.0	2.8	3.4	0.6
AJ14	45.7	47.1	1.4	43.5	44.3	0.8	92.9	93.7	0.8	86.8	86.8	0.0	1.9	2.0	0.1
AJ15	43.9	45.1	1.2	41.3	42.1	0.8	90.7	91.5	0.8	85.6	85.6	0.0	1.1	1.3	0.2
AJ16	42.9	43.8	0.9	40.4	40.8	0.4	89.8	90.2	0.4	79.3	79.3	0.0	0.9	0.9	0.0
AJ17	42.0	42.7	0.7	39.8	39.8	0.0	89.2	89.2	0.0	78.8	78.6	-0.2	0.6	0.5	-0.1
AJ18	40.9	41.6	0.7	38.9	38.7	-0.2	88.3	88.1	-0.2	77.2	76.5	-0.7	0.4	0.4	0.0
AJ19	40.2	41.0	0.8	38.2	38.1	-0.1	87.5	87.4	-0.1	76.0	75.7	-0.3	0.3	0.3	0.0
AJ20	39.7	41.0	1.3	37.6	37.8	0.2	86.9	87.2	0.3	75.1	74.8	-0.3	0.3	0.3	0.0
AJ21	39.4	41.1	1.7	37.2	37.7	0.5	86.6	87.1	0.5	76.1	76.5	0.4	0.3	0.3	0.0
AJ22	39.0	40.7	1.7	36.9	37.5	0.6	86.3	86.9	0.6	77.3	77.3	0.0	0.2	0.3	0.1
AJ23	38.5	40.3	1.8	36.5	37.1	0.6	85.9	86.4	0.5	76.9	76.6	-0.3	0.2	0.3	0.1
AK1	37.8	38.6	0.8	34.5	35.2	0.7	83.9	84.6	0.7	72.8	73.0	0.2	0.1	0.1	0.0
AK2	37.8	38.4	0.6	34.6	35.2	0.6	83.9	84.6	0.7	73.9	74.2	0.3	0.1	0.1	0.0
AK3	37.8	38.7	0.9	34.9	35.6	0.7	84.2	85.0	0.8	75.1	75.3	0.2	0.1	0.1	0.0
AK4	38.9	40.0	1.1	35.9	36.7	0.8	85.3	86.1	0.8	76.2	76.3	0.1	0.2	0.2	0.0
AK5	40.3	41.5	1.2	37.2	38.0	0.8	86.6	87.4	0.8	77.0	77.2	0.2	0.3	0.3	0.0
AK6	41.6	42.7	1.1	38.4	39.2	0.8	87.7	88.6	0.9	77.6	77.6	0.0	0.4	0.4	0.0
AK7	42.6	43.6	1.0	39.4	40.2	0.8	88.8	89.6	0.8	77.8	77.7	-0.1	0.6	0.7	0.1
AK8	43.3	44.6	1.3	40.5	41.8	1.3	89.9	91.1	1.2	77.0	78.4	1.4	0.6	0.7	0.1
AK9	45.4	47.4	2.0	43.1	44.8	1.7	92.4	94.2	1.8	83.0	84.6	1.6	1.4	2.3	0.9

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AK10	48.7	50.5	1.8	46.4	47.8	1.4	95.8	97.2	1.4	86.3	86.3	0.0	2.5	4.7	2.2
AK11	51.6	52.4	0.8	49.4	49.5	0.1	98.7	98.9	0.2	86.4	86.4	0.0	5.8	5.9	0.1
AK12	51.1	52.8	1.7	48.7	49.7	1.0	98.1	99.1	1.0	86.5	86.5	0.0	4.5	5.9	1.4
AK13	47.3	49.3	2.0	45.6	46.8	1.2	95.0	96.2	1.2	86.0	86.0	0.0	1.6	2.3	0.7
AK14	44.6	46.1	1.5	42.8	43.5	0.7	92.2	92.8	0.6	85.4	85.4	0.0	1.5	1.5	0.0
AK15	43.1	44.2	1.1	40.9	41.5	0.6	90.3	90.8	0.5	85.4	85.4	0.0	1.2	1.1	-0.1
AK16	42.0	42.9	0.9	39.9	40.1	0.2	89.3	89.5	0.2	80.0	80.0	0.0	0.8	0.7	-0.1
AK17	41.4	42.2	0.8	39.4	39.5	0.1	88.8	88.9	0.1	77.1	77.4	0.3	0.7	0.6	-0.1
AK18	40.9	41.6	0.7	39.0	38.9	-0.1	88.3	88.2	-0.1	77.3	76.9	-0.4	0.6	0.5	-0.1
AK19	39.9	40.8	0.9	37.8	37.8	0.0	87.2	87.2	0.0	75.3	75.3	0.0	0.2	0.3	0.1
AK20	38.9	40.2	1.3	36.6	37.0	0.4	86.0	86.4	0.4	74.3	74.3	0.0	0.2	0.2	0.0
AK21	38.4	40.1	1.7	36.1	36.8	0.7	85.5	86.2	0.7	74.3	74.9	0.6	0.2	0.3	0.1
AK22	38.1	39.9	1.8	36.0	36.8	0.8	85.4	86.2	0.8	76.2	76.4	0.2	0.2	0.3	0.1
AK23	38.1	39.8	1.7	36.0	36.7	0.7	85.4	86.1	0.7	76.6	76.4	-0.2	0.2	0.3	0.1
AL1	36.9	37.8	0.9	33.7	34.5	0.8	83.1	83.9	0.8	73.2	73.2	0.0	0.1	0.1	0.0
AL2	37.9	38.8	0.9	34.4	35.2	0.8	83.8	84.6	0.8	73.5	73.5	0.0	0.1	0.1	0.0
AL3	38.2	39.0	0.8	34.7	35.5	0.8	84.1	84.9	0.8	73.7	73.7	0.0	0.1	0.1	0.0
AL4	38.2	39.2	1.0	35.0	35.9	0.9	84.3	85.3	1.0	73.4	73.2	-0.2	0.1	0.1	0.0
AL5	38.7	40.0	1.3	35.6	36.8	1.2	85.0	86.1	1.1	73.0	73.2	0.2	0.1	0.2	0.1
AL6	39.8	41.2	1.4	36.8	38.1	1.3	86.2	87.5	1.3	73.9	74.2	0.3	0.2	0.3	0.1
AL7	41.3	42.9	1.6	38.4	39.9	1.5	87.8	89.3	1.5	75.2	75.5	0.3	0.3	0.5	0.2
AL8	43.3	45.1	1.8	40.5	42.1	1.6	89.9	91.5	1.6	77.1	78.5	1.4	0.9	1.7	0.8
AL9	45.0	46.4	1.4	42.5	43.9	1.4	91.9	93.2	1.3	83.0	84.2	1.2	1.4	1.7	0.3
AL10	47.1	49.1	2.0	45.2	46.6	1.4	94.5	95.9	1.4	85.5	85.5	0.0	1.3	2.7	1.4
AL11	50.4	51.4	1.0	48.2	48.5	0.3	97.6	97.9	0.3	85.6	85.6	0.0	4.6	4.9	0.3
AL12	50.1	51.7	1.6	47.7	48.7	1.0	97.1	98.0	0.9	85.6	85.6	0.0	3.6	4.7	1.1
AL13	46.7	48.7	2.0	44.7	45.9	1.2	94.1	95.3	1.2	85.3	85.3	0.0	1.4	2.2	0.8
AL14	43.9	45.4	1.5	42.1	42.8	0.7	91.5	92.2	0.7	84.6	84.6	0.0	0.9	1.3	0.4
AL15	41.3	42.8	1.5	39.4	40.1	0.7	88.7	89.5	0.8	85.1	85.1	0.0	0.4	0.5	0.1
AL16	40.3	41.5	1.2	38.2	38.8	0.6	87.5	88.2	0.7	80.7	80.7	0.0	0.3	0.4	0.1
AL17	39.9	40.9	1.0	37.8	38.1	0.3	87.2	87.5	0.3	75.3	75.3	0.0	0.2	0.3	0.1

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AL18	39.4	40.4	1.0	37.4	37.6	0.2	86.7	87.0	0.3	76.3	76.3	0.0	0.2	0.3	0.1
AL19	38.8	39.9	1.1	36.6	36.9	0.3	86.0	86.3	0.3	75.6	75.1	-0.5	0.2	0.2	0.0
AL20	37.9	39.1	1.2	35.6	36.0	0.4	84.9	85.3	0.4	73.0	72.5	-0.5	0.2	0.2	0.0
AL21	37.1	38.7	1.6	34.9	35.6	0.7	84.2	85.0	0.8	72.5	73.1	0.6	0.2	0.2	0.0
AL22	37.1	38.9	1.8	35.0	35.9	0.9	84.4	85.3	0.9	75.0	75.3	0.3	0.2	0.2	0.0
AL23	37.3	39.0	1.7	35.2	36.0	0.8	84.6	85.4	0.8	76.0	76.0	0.0	0.2	0.2	0.0
AM1	35.6	36.4	0.8	32.5	33.3	0.8	81.9	82.7	0.8	70.1	70.3	0.2	0.1	0.1	0.0
AM2	36.4	37.4	1.0	33.1	34.2	1.1	82.5	83.5	1.0	70.9	71.1	0.2	0.1	0.1	0.0
AM3	37.9	38.9	1.0	34.3	35.4	1.1	83.6	84.8	1.2	71.7	71.9	0.2	0.1	0.1	0.0
AM4	39.1	40.2	1.1	35.4	36.7	1.3	84.7	86.0	1.3	72.6	72.8	0.2	0.1	0.1	0.0
AM5	40.0	41.4	1.4	36.4	37.8	1.4	85.8	87.2	1.4	73.5	73.7	0.2	0.2	0.3	0.1
AM6	40.9	42.4	1.5	37.5	39.0	1.5	86.9	88.4	1.5	74.5	74.7	0.2	0.3	0.6	0.3
AM7	41.8	43.1	1.3	38.8	40.0	1.2	88.1	89.4	1.3	75.7	75.7	0.0	0.6	1.0	0.4
AM8	42.2	43.4	1.2	39.6	40.6	1.0	88.9	90.0	1.1	77.5	78.6	1.1	0.6	0.6	0.0
AM9	43.2	44.8	1.6	41.2	42.5	1.3	90.5	91.8	1.3	82.8	83.7	0.9	0.6	0.8	0.2
AM10	46.1	48.1	2.0	44.2	45.6	1.4	93.6	94.9	1.3	84.6	84.7	0.1	1.2	2.3	1.1
AM11	49.2	50.4	1.2	47.1	47.5	0.4	96.5	96.9	0.4	84.7	84.8	0.1	3.7	4.1	0.4
AM12	49.3	50.8	1.5	46.9	47.7	0.8	96.3	97.1	0.8	84.8	84.8	0.0	3.5	4.3	0.8
AM13	45.8	47.7	1.9	43.9	44.9	1.0	93.3	94.3	1.0	84.6	84.6	0.0	1.0	1.6	0.6
AM14	43.5	45.2	1.7	41.7	42.6	0.9	91.1	92.0	0.9	84.1	84.1	0.0	0.8	1.3	0.5
AM15	41.2	42.6	1.4	38.9	39.8	0.9	88.3	89.1	0.8	84.5	84.5	0.0	0.5	0.7	0.2
AM16	39.9	41.2	1.3	37.4	38.2	0.8	86.8	87.6	0.8	81.3	81.3	0.0	0.3	0.4	0.1
AM17	39.2	40.3	1.1	36.7	37.2	0.5	86.1	86.6	0.5	75.9	75.9	0.0	0.2	0.3	0.1
AM18	38.7	39.7	1.0	36.3	36.7	0.4	85.7	86.1	0.4	74.3	74.7	0.4	0.2	0.2	0.0
AM19	38.0	38.9	0.9	35.8	36.0	0.2	85.1	85.4	0.3	75.1	74.9	-0.2	0.2	0.2	0.0
AM20	37.0	38.1	1.1	34.9	35.2	0.3	84.2	84.5	0.3	73.8	73.1	-0.7	0.2	0.2	0.0
AM21	36.4	37.7	1.3	34.2	34.8	0.6	83.6	84.2	0.6	71.3	71.5	0.2	0.2	0.2	0.0
AM22	36.5	38.0	1.5	34.3	35.1	0.8	83.6	84.4	0.8	73.5	74.1	0.6	0.2	0.2	0.0
AM23	36.6	38.0	1.4	34.4	35.1	0.7	83.8	84.5	0.7	75.1	75.2	0.1	0.1	0.1	0.0
AN1	35.4	36.0	0.6	32.2	32.9	0.7	81.6	82.2	0.6	68.5	68.6	0.1	0.1	0.1	0.0
AN2	35.6	36.3	0.7	32.4	33.3	0.9	81.7	82.6	0.9	69.3	69.4	0.1	0.1	0.1	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AN3	36.2	37.0	0.8	33.0	34.0	1.0	82.4	83.4	1.0	70.1	70.1	0.0	0.1	0.1	0.0
AN4	37.1	38.0	0.9	33.9	35.0	1.1	83.3	84.3	1.0	71.5	71.5	0.0	0.1	0.1	0.0
AN5	38.0	39.1	1.1	35.1	36.1	1.0	84.4	85.5	1.1	73.8	73.8	0.0	0.1	0.1	0.0
AN6	38.8	39.8	1.0	36.2	37.1	0.9	85.5	86.5	1.0	75.5	75.5	0.0	0.2	0.2	0.0
AN7	39.4	40.4	1.0	36.9	37.7	0.8	86.3	87.1	0.8	76.2	76.2	0.0	0.3	0.2	-0.1
AN8	40.2	41.6	1.4	38.0	39.1	1.1	87.4	88.4	1.0	77.2	78.6	1.4	0.3	0.4	0.1
AN9	42.5	44.2	1.7	40.4	41.8	1.4	89.8	91.1	1.3	82.4	83.1	0.7	0.6	0.9	0.3
AN10	45.3	47.2	1.9	43.4	44.7	1.3	92.8	94.1	1.3	83.8	83.8	0.0	0.9	1.5	0.6
AN11	48.0	49.2	1.2	45.9	46.4	0.5	95.3	95.7	0.4	83.8	83.9	0.1	2.5	2.5	0.0
AN12	48.3	49.9	1.6	45.9	46.8	0.9	95.3	96.2	0.9	83.9	83.9	0.0	2.7	3.8	1.1
AN13	45.3	47.1	1.8	43.3	44.1	0.8	92.7	93.5	0.8	83.8	83.8	0.0	0.9	1.1	0.2
AN14	43.0	44.8	1.8	41.2	42.2	1.0	90.5	91.6	1.1	83.5	83.5	0.0	0.7	1.1	0.4
AN15	40.2	41.8	1.6	38.2	39.0	0.8	87.6	88.4	0.8	83.7	83.7	0.0	0.3	0.4	0.1
AN16	38.6	40.0	1.4	36.4	37.2	0.8	85.8	86.6	0.8	81.9	81.9	0.0	0.2	0.3	0.1
AN17	37.8	38.9	1.1	35.5	36.1	0.6	84.9	85.4	0.5	76.6	76.6	0.0	0.2	0.2	0.0
AN18	37.3	38.3	1.0	35.1	35.5	0.4	84.5	84.9	0.4	74.1	74.0	-0.1	0.2	0.2	0.0
AN19	37.0	38.0	1.0	34.9	35.2	0.3	84.3	84.6	0.3	73.9	73.8	-0.1	0.2	0.2	0.0
AN20	36.7	37.8	1.1	34.7	34.9	0.2	84.1	84.3	0.2	73.7	73.4	-0.3	0.2	0.2	0.0
AN21	36.5	37.6	1.1	34.3	34.7	0.4	83.7	84.1	0.4	72.2	71.7	-0.5	0.2	0.2	0.0
AN22	36.3	37.5	1.2	34.0	34.5	0.5	83.3	83.9	0.6	71.9	72.5	0.6	0.1	0.1	0.0
AN23	36.0	37.0	1.0	33.8	34.3	0.5	83.1	83.6	0.5	74.1	74.3	0.2	0.1	0.1	0.0
AO1	36.2	36.7	0.5	32.8	33.3	0.5	82.1	82.7	0.6	71.0	71.0	0.0	0.1	0.1	0.0
AO2	36.0	36.5	0.5	32.8	33.3	0.5	82.2	82.7	0.5	71.5	71.5	0.0	0.1	0.1	0.0
AO3	35.7	36.3	0.6	32.8	33.3	0.5	82.2	82.7	0.5	72.3	72.3	0.0	0.1	0.1	0.0
AO4	36.1	36.7	0.6	33.5	34.0	0.5	82.8	83.4	0.6	73.7	73.7	0.0	0.1	0.1	0.0
AO5	36.8	37.5	0.7	34.3	34.9	0.6	83.7	84.3	0.6	74.3	74.3	0.0	0.1	0.1	0.0
AO6	37.5	38.2	0.7	35.0	35.5	0.5	84.3	84.9	0.6	74.4	74.6	0.2	0.1	0.1	0.0
AO7	38.4	39.5	1.1	35.8	36.6	0.8	85.2	86.0	0.8	75.2	75.3	0.1	0.2	0.2	0.0
AO8	40.1	41.4	1.3	37.5	38.7	1.2	86.9	88.1	1.2	77.2	78.5	1.3	0.3	0.5	0.2
AO9	42.1	43.6	1.5	40.0	41.3	1.3	89.3	90.6	1.3	81.9	82.5	0.6	0.5	0.7	0.2
AO10	44.6	46.3	1.7	42.7	43.8	1.1	92.0	93.2	1.2	83.0	83.0	0.0	0.8	1.1	0.3

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AO11	46.7	48.0	1.3	44.7	45.2	0.5	94.1	94.6	0.5	82.9	83.0	0.1	1.8	1.8	0.0
AO12	46.8	48.6	1.8	44.6	45.5	0.9	94.0	94.9	0.9	83.1	83.1	0.0	1.5	2.2	0.7
AO13	44.8	46.6	1.8	42.8	43.6	0.8	92.1	92.9	0.8	83.1	83.1	0.0	1.1	1.3	0.2
AO14	42.8	44.4	1.6	40.8	41.7	0.9	90.2	91.1	0.9	82.9	82.9	0.0	0.6	0.9	0.3
AO15	40.4	41.7	1.3	38.4	39.0	0.6	87.7	88.4	0.7	82.7	82.7	0.0	0.3	0.4	0.1
AO16	38.1	39.5	1.4	35.9	36.7	0.8	85.2	86.1	0.9	81.8	81.8	0.0	0.1	0.2	0.1
AO17	37.0	38.2	1.2	34.7	35.4	0.7	84.1	84.7	0.6	77.2	77.2	0.0	0.1	0.1	0.0
AO18	36.5	37.6	1.1	34.2	34.7	0.5	83.5	84.0	0.5	73.3	73.3	0.0	0.1	0.1	0.0
AO19	36.4	37.6	1.2	34.2	34.6	0.4	83.6	84.0	0.4	72.9	72.9	0.0	0.1	0.1	0.0
AO20	36.6	37.7	1.1	34.3	34.7	0.4	83.7	84.0	0.3	72.9	73.0	0.1	0.2	0.2	0.0
AO21	36.4	37.4	1.0	34.1	34.4	0.3	83.5	83.7	0.2	72.5	72.1	-0.4	0.2	0.2	0.0
AO22	35.9	36.7	0.8	33.6	33.8	0.2	82.9	83.2	0.3	72.0	71.8	-0.2	0.1	0.2	0.1
AO23	35.2	36.1	0.9	33.1	33.4	0.3	82.4	82.8	0.4	72.8	73.2	0.4	0.1	0.1	0.0
AP1	35.7	36.2	0.5	32.4	32.8	0.4	81.7	82.1	0.4	71.2	71.2	0.0	0.1	0.1	0.0
AP2	36.5	37.0	0.5	33.2	33.7	0.5	82.6	83.1	0.5	71.9	71.9	0.0	0.1	0.1	0.0
AP3	36.5	37.1	0.6	33.4	34.0	0.6	82.8	83.3	0.5	72.6	72.6	0.0	0.1	0.1	0.0
AP4	36.6	37.2	0.6	33.7	34.3	0.6	83.1	83.7	0.6	72.4	72.4	0.0	0.1	0.1	0.0
AP5	36.9	37.6	0.7	34.0	34.6	0.6	83.4	84.0	0.6	72.3	72.3	0.0	0.1	0.1	0.0
AP6	37.6	38.4	0.8	34.5	35.3	0.8	83.9	84.7	0.8	72.3	72.1	-0.2	0.1	0.1	0.0
AP7	38.7	39.6	0.9	35.7	36.7	1.0	85.1	86.1	1.0	72.6	73.7	1.1	0.1	0.1	0.0
AP8	39.9	41.0	1.1	37.3	38.5	1.2	86.7	87.8	1.1	77.2	78.4	1.2	0.3	0.4	0.1
AP9	41.4	42.8	1.4	39.3	40.5	1.2	88.7	89.9	1.2	81.4	81.8	0.4	0.4	0.5	0.1
AP10	43.4	45.3	1.9	41.5	42.8	1.3	90.9	92.1	1.2	82.1	82.1	0.0	0.5	0.7	0.2
AP11	45.8	47.1	1.3	43.7	44.2	0.5	93.0	93.6	0.6	82.1	82.2	0.1	1.3	1.3	0.0
AP12	45.5	47.2	1.7	43.3	44.2	0.9	92.7	93.5	0.8	82.3	82.3	0.0	0.9	1.3	0.4
AP13	43.4	45.6	2.2	41.6	42.6	1.0	91.0	91.9	0.9	82.3	82.3	0.0	0.5	0.7	0.2
AP14	42.3	44.0	1.7	40.3	41.2	0.9	89.7	90.6	0.9	82.2	82.2	0.0	0.6	0.8	0.2
AP15	40.9	42.0	1.1	38.7	39.2	0.5	88.0	88.6	0.6	81.7	81.7	0.0	0.4	0.3	-0.1
AP16	38.6	39.8	1.2	36.1	36.8	0.7	85.5	86.1	0.6	81.5	81.5	0.0	0.1	0.2	0.1
AP17	37.1	38.3	1.2	34.5	35.2	0.7	83.9	84.6	0.7	77.7	77.7	0.0	0.1	0.1	0.0
AP18	36.3	37.4	1.1	33.6	34.3	0.7	83.0	83.6	0.6	73.1	73.1	0.0	0.1	0.1	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AP19	36.0	37.1	1.1	33.3	33.9	0.6	82.7	83.3	0.6	72.6	72.6	0.0	0.1	0.1	0.0
AP20	35.8	36.8	1.0	33.3	33.7	0.4	82.7	83.1	0.4	71.5	71.8	0.3	0.1	0.1	0.0
AP21	35.3	36.2	0.9	33.0	33.3	0.3	82.4	82.6	0.2	72.1	72.0	-0.1	0.1	0.1	0.0
AP22	34.7	35.5	0.8	32.6	32.7	0.1	81.9	82.1	0.2	71.1	70.6	-0.5	0.1	0.1	0.0
AP23	34.2	35.1	0.9	32.2	32.5	0.3	81.5	81.9	0.4	71.3	71.9	0.6	0.1	0.1	0.0
AQ1	34.2	34.7	0.5	31.2	31.6	0.4	80.6	81.0	0.4	69.5	69.4	-0.1	0.1	0.0	-0.1
AQ2	35.8	36.4	0.6	32.7	33.3	0.6	82.1	82.7	0.6	69.5	69.3	-0.2	0.1	0.0	-0.1
AQ3	36.3	37.0	0.7	33.3	34.0	0.7	82.7	83.4	0.7	69.5	69.5	0.0	0.1	0.0	-0.1
AQ4	36.4	37.0	0.6	33.4	34.0	0.6	82.7	83.4	0.7	68.5	68.7	0.2	0.1	0.0	-0.1
AQ5	36.8	37.4	0.6	33.7	34.4	0.7	83.0	83.8	0.8	69.2	69.4	0.2	0.1	0.0	-0.1
AQ6	37.3	38.0	0.7	34.3	35.1	0.8	83.7	84.5	0.8	70.0	70.2	0.2	0.1	0.1	0.0
AQ7	37.9	38.7	0.8	35.1	36.1	1.0	84.5	85.5	1.0	72.7	73.8	1.1	0.1	0.1	0.0
AQ8	38.7	39.8	1.1	36.4	37.5	1.1	85.8	86.9	1.1	77.1	78.2	1.1	0.2	0.3	0.1
AQ9	40.4	41.9	1.5	38.5	39.7	1.2	87.9	89.1	1.2	80.6	80.9	0.3	0.3	0.4	0.1
AQ10	42.9	44.6	1.7	40.9	42.1	1.2	90.3	91.5	1.2	81.2	81.1	-0.1	0.4	0.6	0.2
AQ11	44.8	46.2	1.4	42.7	43.3	0.6	92.1	92.7	0.6	81.1	81.2	0.1	0.9	0.9	0.0
AQ12	44.3	45.9	1.6	42.1	42.9	0.8	91.5	92.2	0.7	81.2	81.2	0.0	0.6	0.8	0.2
AQ13	42.3	44.7	2.4	40.7	41.6	0.9	90.1	91.0	0.9	81.2	81.2	0.0	0.4	0.6	0.2
AQ14	40.9	43.1	2.2	39.2	40.2	1.0	88.6	89.6	1.0	81.2	81.2	0.0	0.3	0.5	0.2
AQ15	40.6	41.8	1.2	38.6	39.2	0.6	88.0	88.6	0.6	80.4	80.4	0.0	0.4	0.5	0.1
AQ16	38.7	39.6	0.9	36.4	36.7	0.3	85.8	86.1	0.3	80.9	80.9	0.0	0.2	0.2	0.0
AQ17	36.9	37.9	1.0	34.4	34.8	0.4	83.8	84.2	0.4	78.1	78.1	0.0	0.1	0.1	0.0
AQ18	35.6	36.4	0.8	32.9	33.3	0.4	82.3	82.7	0.4	73.7	73.7	0.0	0.0	0.1	0.1
AQ19	34.5	35.5	1.0	31.9	32.4	0.5	81.3	81.8	0.5	72.2	72.2	0.0	0.1	0.1	0.0
AQ20	34.0	35.0	1.0	31.7	32.1	0.4	81.0	81.4	0.4	71.0	71.0	0.0	0.1	0.1	0.0
AQ21	33.7	34.7	1.0	31.6	31.9	0.3	81.0	81.3	0.3	71.1	71.2	0.1	0.1	0.1	0.0
AQ22	33.6	34.5	0.9	31.6	31.8	0.2	81.0	81.1	0.1	71.0	70.8	-0.2	0.1	0.1	0.0
AQ23	33.4	34.3	0.9	31.4	31.7	0.3	80.8	81.0	0.2	69.9	70.4	0.5	0.1	0.1	0.0
AR1	33.1	33.8	0.7	30.4	31.1	0.7	79.8	80.5	0.7	65.5	66.0	0.5	0.0	0.0	0.0
AR2	34.7	35.3	0.6	31.9	32.6	0.7	81.2	82.0	0.8	67.4	67.7	0.3	0.0	0.0	0.0
AR3	36.1	36.7	0.6	33.0	33.7	0.7	82.4	83.1	0.7	68.2	68.3	0.1	0.0	0.0	0.0

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AR4	36.7	37.3	0.6	33.5	34.2	0.7	82.8	83.6	0.8	68.8	68.9	0.1	0.0	0.0	0.0
AR5	36.8	37.5	0.7	33.6	34.4	0.8	83.0	83.8	0.8	69.4	69.5	0.1	0.0	0.0	0.0
AR6	36.8	37.6	0.8	33.9	34.7	0.8	83.3	84.1	0.8	70.0	70.1	0.1	0.1	0.1	0.0
AR7	37.3	38.3	1.0	34.7	35.7	1.0	84.1	85.0	0.9	72.8	73.8	1.0	0.1	0.1	0.0
AR8	38.6	39.8	1.2	36.3	37.4	1.1	85.7	86.8	1.1	77.0	78.0	1.0	0.2	0.3	0.1
AR9	40.4	41.9	1.5	38.4	39.6	1.2	87.8	88.9	1.1	79.9	80.1	0.2	0.3	0.4	0.1
AR10	42.3	43.9	1.6	40.3	41.5	1.2	89.7	90.8	1.1	80.2	80.1	-0.1	0.4	0.5	0.1
AR11	43.9	45.3	1.4	41.8	42.5	0.7	91.1	91.8	0.7	80.2	80.2	0.0	0.6	0.7	0.1
AR12	43.4	45.0	1.6	41.3	41.9	0.6	90.7	91.3	0.6	80.3	80.3	0.0	0.5	0.6	0.1
AR13	41.5	43.7	2.2	39.8	40.7	0.9	89.2	90.0	0.8	80.4	80.4	0.0	0.3	0.5	0.2
AR14	40.1	42.6	2.5	38.6	39.7	1.1	88.0	89.0	1.0	80.3	80.3	0.0	0.3	0.4	0.1
AR15	39.4	41.4	2.0	37.8	38.8	1.0	87.1	88.1	1.0	79.2	79.2	0.0	0.2	0.4	0.2
AR16	38.8	39.7	0.9	36.7	37.0	0.3	86.1	86.4	0.3	80.1	80.1	0.0	0.2	0.2	0.0
AR17	37.1	37.7	0.6	34.9	34.9	0.0	84.3	84.3	0.0	78.4	78.4	0.0	0.1	0.1	0.0
AR18	35.2	35.8	0.6	32.9	33.0	0.1	82.3	82.3	0.0	74.2	74.2	0.0	0.1	0.1	0.0
AR19	33.6	34.4	0.8	31.4	31.5	0.1	80.8	80.9	0.1	71.1	71.1	0.0	0.0	0.0	0.0
AR20	32.8	33.7	0.9	30.7	30.9	0.2	80.1	80.3	0.2	69.8	69.8	0.0	0.1	0.1	0.0
AR21	32.7	33.7	1.0	30.7	30.9	0.2	80.1	80.3	0.2	69.5	69.8	0.3	0.1	0.1	0.0
AR22	32.8	33.8	1.0	30.9	31.0	0.1	80.3	80.4	0.1	70.3	70.3	0.0	0.1	0.1	0.0
AR23	32.9	33.8	0.9	31.0	31.1	0.1	80.4	80.5	0.1	69.9	69.6	-0.3	0.1	0.1	0.0
AS1	33.2	33.8	0.6	30.5	31.1	0.6	79.9	80.5	0.6	67.0	67.2	0.2	0.0	0.0	0.0
AS2	34.3	34.8	0.5	31.3	31.9	0.6	80.7	81.3	0.6	67.9	68.1	0.2	0.0	0.0	0.0
AS3	35.2	35.7	0.5	32.0	32.7	0.7	81.4	82.0	0.6	68.8	69.0	0.2	0.0	0.0	0.0
AS4	35.9	36.6	0.7	32.7	33.4	0.7	82.1	82.8	0.7	69.7	69.9	0.2	0.0	0.0	0.0
AS5	36.4	37.2	0.8	33.3	34.1	0.8	82.7	83.4	0.7	70.5	70.7	0.2	0.1	0.0	-0.1
AS6	37.0	37.8	0.8	34.0	34.8	0.8	83.3	84.2	0.9	71.3	71.5	0.2	0.1	0.1	0.0
AS7	37.7	38.7	1.0	34.9	35.9	1.0	84.3	85.3	1.0	72.9	73.8	0.9	0.1	0.1	0.0
AS8	38.7	39.9	1.2	36.2	37.4	1.2	85.6	86.8	1.2	76.8	77.8	1.0	0.2	0.2	0.0
AS9	39.8	41.3	1.5	37.8	39.0	1.2	87.1	88.4	1.3	79.2	79.4	0.2	0.3	0.4	0.1
AS10	41.3	42.9	1.6	39.4	40.5	1.1	88.7	89.9	1.2	79.4	79.3	-0.1	0.4	0.5	0.1
AS11	42.7	44.3	1.6	40.7	41.5	0.8	90.0	90.8	0.8	79.4	79.4	0.0	0.4	0.6	0.2

Table I-5 (*continued*)
REGULARLY SPACED POINT RESULTS – EXISTING (2006) BASELINE AND FUTURE (2012) BASELINE
Port Columbus International Airport

GRID ID	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change	Existing (2006) Baseline	Future (2012) Baseline	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AS12	42.6	44.3	1.7	40.6	41.2	0.6	89.9	90.5	0.6	79.5	79.5	0.0	0.4	0.6	0.2
AS13	40.7	42.8	2.1	39.0	39.7	0.7	88.4	89.1	0.7	79.5	79.5	0.0	0.3	0.4	0.1
AS14	39.3	41.9	2.6	37.8	38.8	1.0	87.1	88.2	1.1	79.5	79.5	0.0	0.2	0.3	0.1
AS15	38.7	41.3	2.6	37.2	38.5	1.3	86.6	87.9	1.3	78.6	78.6	0.0	0.2	0.2	0.0
AS16	38.2	40.0	1.8	36.4	37.2	0.8	85.8	86.6	0.8	79.4	79.4	0.0	0.1	0.1	0.0
AS17	37.6	38.7	1.1	35.5	35.8	0.3	84.9	85.2	0.3	78.3	78.3	0.0	0.1	0.1	0.0
AS18	36.1	36.8	0.7	33.9	33.9	0.0	83.3	83.3	0.0	74.7	74.7	0.0	0.1	0.1	0.0
AS19	34.2	34.9	0.7	32.1	32.0	-0.1	81.5	81.4	-0.1	71.9	71.9	0.0	0.0	0.0	0.0
AS20	32.9	33.8	0.9	30.9	30.9	0.0	80.3	80.3	0.0	71.5	71.5	0.0	0.0	0.0	0.0
AS21	32.5	33.4	0.9	30.5	30.6	0.1	79.9	79.9	0.0	70.8	70.8	0.0	0.1	0.0	-0.1
AS22	32.5	33.5	1.0	30.7	30.6	-0.1	80.0	80.0	0.0	69.9	69.9	0.0	0.1	0.1	0.0
AS23	32.6	33.4	0.8	30.7	30.7	0.0	80.1	80.0	-0.1	69.4	69.3	-0.1	0.1	0.1	0.0

Source: Landrum & Brown, 2007.

Table I-6
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
A1	38.8	38.2	-0.6	33.8	33.2	-0.6	83.2	82.6	-0.6	70.4	70.4	0.0	0.2	0.1	-0.1
A2	38.5	37.8	-0.7	33.7	33.1	-0.6	83.1	82.5	-0.6	71.6	71.6	0.0	0.2	0.1	-0.1
A3	38.5	37.9	-0.6	33.9	33.4	-0.5	83.3	82.8	-0.5	71.0	71.0	0.0	0.1	0.1	0.0
A4	38.7	38.1	-0.6	34.2	33.7	-0.5	83.6	83.1	-0.5	71.8	71.8	0.0	0.1	0.1	0.0
A5	38.9	38.5	-0.4	34.4	34.1	-0.3	83.8	83.5	-0.3	71.5	71.5	0.0	0.1	0.1	0.0
A6	39.2	38.9	-0.3	34.6	34.3	-0.3	83.9	83.7	-0.2	68.6	68.6	0.0	0.1	0.1	0.0
A7	39.9	39.6	-0.3	35.2	35.0	-0.2	84.6	84.3	-0.3	70.3	70.3	0.0	0.0	0.0	0.0
A8	40.9	40.5	-0.4	36.4	36.0	-0.4	85.7	85.4	-0.3	72.8	72.8	0.0	0.1	0.1	0.0
A9	42.2	41.7	-0.5	37.8	37.3	-0.5	87.2	86.7	-0.5	72.0	72.0	0.0	0.2	0.2	0.0
A10	43.8	43.2	-0.6	39.3	38.9	-0.4	88.7	88.3	-0.4	72.8	72.8	0.0	0.3	0.3	0.0
A11	44.8	44.4	-0.4	40.4	40.0	-0.4	89.7	89.4	-0.3	72.9	72.9	0.0	0.5	0.4	-0.1
A12	44.8	44.3	-0.5	40.3	40.0	-0.3	89.7	89.3	-0.4	72.9	72.9	0.0	0.5	0.4	-0.1
A13	43.7	43.2	-0.5	39.4	39.0	-0.4	88.8	88.4	-0.4	72.6	72.6	0.0	0.3	0.3	0.0
A14	42.2	41.8	-0.4	38.1	37.8	-0.3	87.5	87.2	-0.3	72.6	73.0	0.4	0.2	0.2	0.0
A15	40.7	40.5	-0.2	36.7	36.6	-0.1	86.0	86.0	0.0	72.1	73.2	1.1	0.1	0.1	0.0
A16	39.3	39.5	0.2	35.2	35.6	0.4	84.6	84.9	0.3	71.2	73.0	1.8	0.1	0.1	0.0
A17	38.1	38.6	0.5	33.9	34.6	0.7	83.3	84.0	0.7	72.2	72.7	0.5	0.1	0.1	0.0
A18	36.6	37.5	0.9	32.3	33.5	1.2	81.7	82.8	1.1	70.3	72.7	2.4	0.0	0.1	0.1
A19	34.8	35.9	1.1	30.5	31.9	1.4	79.9	81.2	1.3	65.8	72.6	6.8	0.0	0.0	0.0
A20	33.4	34.5	1.1	28.9	30.3	1.4	78.3	79.7	1.4	62.2	72.3	10.1	0.0	0.0	0.0
A21	32.7	33.5	0.8	27.8	29.0	1.2	77.2	78.4	1.2	60.8	72.0	11.2	0.0	0.0	0.0
A22	32.7	33.2	0.5	27.3	28.3	1.0	76.7	77.7	1.0	59.5	69.7	10.2	0.0	0.0	0.0
A23	33.1	33.4	0.3	27.4	28.1	0.7	76.8	77.5	0.7	59.2	66.1	6.9	0.0	0.0	0.0
B1	39.6	39.1	-0.5	34.5	34.0	-0.5	83.9	83.3	-0.6	71.8	71.8	0.0	0.2	0.1	-0.1
B2	39.8	39.3	-0.5	34.8	34.3	-0.5	84.2	83.7	-0.5	71.4	71.4	0.0	0.2	0.2	0.0
B3	39.4	38.8	-0.6	34.7	34.2	-0.5	84.1	83.5	-0.6	72.3	72.3	0.0	0.2	0.1	-0.1
B4	39.2	38.5	-0.7	34.8	34.2	-0.6	84.1	83.6	-0.5	71.4	71.4	0.0	0.2	0.1	-0.1
B5	39.1	38.5	-0.6	34.8	34.3	-0.5	84.2	83.7	-0.5	72.7	72.7	0.0	0.2	0.1	-0.1
B6	39.4	38.9	-0.5	35.2	34.8	-0.4	84.5	84.1	-0.4	71.4	71.4	0.0	0.1	0.1	0.0
B7	40.3	39.9	-0.4	35.9	35.6	-0.3	85.2	85.0	-0.2	70.1	70.1	0.0	0.1	0.1	0.0
B8	41.6	41.2	-0.4	37.1	36.8	-0.3	86.5	86.2	-0.3	73.3	73.3	0.0	0.1	0.1	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
B9	43.1	42.6	-0.5	38.5	38.1	-0.4	87.9	87.5	-0.4	72.5	72.5	0.0	0.2	0.2	0.0
B10	44.6	44.1	-0.5	40.0	39.6	-0.4	89.4	89.0	-0.4	73.5	73.5	0.0	0.4	0.3	-0.1
B11	45.6	45.2	-0.4	41.1	40.7	-0.4	90.4	90.1	-0.3	73.5	73.5	0.0	0.5	0.5	0.0
B12	45.3	44.8	-0.5	40.9	40.6	-0.3	90.3	89.9	-0.4	73.5	73.5	0.0	0.5	0.4	-0.1
B13	44.1	43.6	-0.5	39.9	39.5	-0.4	89.3	88.9	-0.4	73.1	73.1	0.0	0.4	0.3	-0.1
B14	42.5	42.1	-0.4	38.5	38.2	-0.3	87.8	87.5	-0.3	73.2	73.9	0.7	0.2	0.2	0.0
B15	40.9	40.8	-0.1	37.0	36.9	-0.1	86.3	86.3	0.0	72.3	73.9	1.6	0.1	0.1	0.0
B16	39.7	39.9	0.2	35.6	36.0	0.4	85.0	85.4	0.4	72.5	73.6	1.1	0.1	0.1	0.0
B17	38.4	39.0	0.6	34.2	35.1	0.9	83.6	84.4	0.8	72.5	73.6	1.1	0.1	0.1	0.0
B18	36.9	37.8	0.9	32.6	33.8	1.2	82.0	83.1	1.1	69.3	73.4	4.1	0.0	0.1	0.1
B19	35.8	36.7	0.9	31.2	32.4	1.2	80.5	81.8	1.3	66.9	73.0	6.1	0.0	0.0	0.0
B20	35.1	35.9	0.8	30.2	31.3	1.1	79.5	80.7	1.2	65.6	73.1	7.5	0.0	0.0	0.0
B21	35.1	35.6	0.5	29.6	30.6	1.0	79.0	79.9	0.9	64.1	72.1	8.0	0.0	0.0	0.0
B22	35.4	35.7	0.3	29.6	30.3	0.7	78.9	79.7	0.8	62.5	68.6	6.1	0.0	0.0	0.0
B23	35.6	35.8	0.2	29.6	30.2	0.6	78.9	79.6	0.7	63.6	65.0	1.4	0.0	0.0	0.0
C1	39.2	38.6	-0.6	34.4	33.9	-0.5	83.8	83.2	-0.6	72.4	72.4	0.0	0.2	0.1	-0.1
C2	40.3	39.8	-0.5	35.4	34.9	-0.5	84.8	84.3	-0.5	72.2	72.2	0.0	0.2	0.2	0.0
C3	40.6	40.1	-0.5	35.7	35.3	-0.4	85.1	84.6	-0.5	72.7	72.7	0.0	0.2	0.2	0.0
C4	40.4	39.9	-0.5	35.8	35.3	-0.5	85.2	84.7	-0.5	72.7	72.7	0.0	0.2	0.2	0.0
C5	40.1	39.5	-0.6	35.8	35.3	-0.5	85.2	84.7	-0.5	72.9	72.9	0.0	0.2	0.2	0.0
C6	40.1	39.5	-0.6	36.0	35.5	-0.5	85.4	84.9	-0.5	73.3	73.3	0.0	0.2	0.1	-0.1
C7	40.6	40.1	-0.5	36.5	36.1	-0.4	85.9	85.5	-0.4	71.1	71.1	0.0	0.2	0.1	-0.1
C8	42.0	41.6	-0.4	37.8	37.5	-0.3	87.1	86.8	-0.3	73.8	73.8	0.0	0.2	0.1	-0.1
C9	43.7	43.3	-0.4	39.3	38.9	-0.4	88.6	88.3	-0.3	73.5	73.5	0.0	0.3	0.2	-0.1
C10	45.4	45.0	-0.4	40.8	40.5	-0.3	90.2	89.8	-0.4	74.2	74.2	0.0	0.4	0.4	0.0
C11	46.4	46.0	-0.4	41.8	41.5	-0.3	91.2	90.9	-0.3	74.2	74.2	0.0	0.6	0.6	0.0
C12	45.9	45.4	-0.5	41.6	41.2	-0.4	90.9	90.6	-0.3	74.3	74.3	0.0	0.6	0.5	-0.1
C13	44.5	44.0	-0.5	40.5	40.1	-0.4	89.8	89.4	-0.4	73.7	73.7	0.0	0.4	0.4	0.0
C14	42.9	42.5	-0.4	38.9	38.6	-0.3	88.3	88.0	-0.3	74.1	74.8	0.7	0.2	0.2	0.0
C15	41.4	41.3	-0.1	37.4	37.5	0.1	86.8	86.8	0.0	72.3	74.6	2.3	0.2	0.2	0.0
C16	40.2	40.4	0.2	36.1	36.5	0.4	85.4	85.9	0.5	73.7	74.6	0.9	0.1	0.1	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
C17	38.9	39.6	0.7	34.6	35.5	0.9	84.0	84.9	0.9	72.5	74.3	1.8	0.1	0.1	0.0
C18	37.9	38.7	0.8	33.2	34.3	1.1	82.6	83.7	1.1	69.4	74.2	4.8	0.1	0.1	0.0
C19	37.4	38.1	0.7	32.3	33.3	1.0	81.7	82.7	1.0	68.5	74.1	5.6	0.0	0.0	0.0
C20	37.3	37.7	0.4	31.8	32.6	0.8	81.1	82.0	0.9	67.6	73.8	6.2	0.0	0.0	0.0
C21	36.9	37.2	0.3	31.1	31.9	0.8	80.5	81.2	0.7	66.4	71.2	4.8	0.0	0.0	0.0
C22	36.1	36.3	0.2	30.2	30.9	0.7	79.6	80.2	0.6	64.9	67.7	2.8	0.0	0.0	0.0
C23	35.0	35.2	0.2	29.2	29.8	0.6	78.5	79.1	0.6	63.2	63.7	0.5	0.0	0.0	0.0
D1	38.6	38.0	-0.6	34.2	33.7	-0.5	83.6	83.1	-0.5	72.0	72.0	0.0	0.1	0.1	0.0
D2	40.0	39.3	-0.7	35.6	35.0	-0.6	84.9	84.4	-0.5	73.5	73.5	0.0	0.2	0.2	0.0
D3	40.8	40.2	-0.6	36.3	35.8	-0.5	85.7	85.2	-0.5	72.1	72.1	0.0	0.2	0.2	0.0
D4	41.3	40.8	-0.5	36.8	36.3	-0.5	86.1	85.7	-0.4	73.9	73.9	0.0	0.3	0.2	-0.1
D5	41.7	41.2	-0.5	37.2	36.8	-0.4	86.6	86.2	-0.4	72.8	72.8	0.0	0.2	0.2	0.0
D6	41.7	41.2	-0.5	37.4	37.0	-0.4	86.8	86.4	-0.4	74.3	74.3	0.0	0.2	0.2	0.0
D7	41.7	41.2	-0.5	37.7	37.3	-0.4	87.1	86.7	-0.4	73.5	73.5	0.0	0.2	0.2	0.0
D8	42.5	42.0	-0.5	38.5	38.1	-0.4	87.9	87.5	-0.4	74.3	74.3	0.0	0.2	0.2	0.0
D9	44.2	43.8	-0.4	40.0	39.7	-0.3	89.4	89.1	-0.3	74.4	74.4	0.0	0.3	0.3	0.0
D10	46.2	45.8	-0.4	41.6	41.4	-0.2	91.0	90.7	-0.3	74.9	74.9	0.0	0.5	0.5	0.0
D11	47.3	46.9	-0.4	42.7	42.4	-0.3	92.0	91.7	-0.3	75.1	75.1	0.0	0.8	0.7	-0.1
D12	46.7	46.2	-0.5	42.4	42.0	-0.4	91.7	91.4	-0.3	75.0	75.0	0.0	0.8	0.7	-0.1
D13	45.2	44.7	-0.5	41.1	40.8	-0.3	90.5	90.1	-0.4	74.8	74.8	0.0	0.5	0.5	0.0
D14	43.5	43.1	-0.4	39.5	39.2	-0.3	88.8	88.6	-0.2	74.9	75.7	0.8	0.3	0.3	0.0
D15	42.1	42.1	0.0	38.0	38.1	0.1	87.4	87.5	0.1	73.0	75.4	2.4	0.2	0.2	0.0
D16	41.2	41.6	0.4	36.8	37.3	0.5	86.2	86.7	0.5	74.6	75.4	0.8	0.1	0.2	0.1
D17	40.3	40.9	0.6	35.6	36.4	0.8	84.9	85.8	0.9	71.9	75.2	3.3	0.1	0.1	0.0
D18	39.4	40.0	0.6	34.4	35.3	0.9	83.7	84.7	1.0	71.1	75.1	4.0	0.1	0.1	0.0
D19	38.5	39.0	0.5	33.3	34.2	0.9	82.7	83.6	0.9	70.1	74.6	4.5	0.0	0.1	0.1
D20	37.4	37.8	0.4	32.1	32.9	0.8	81.5	82.3	0.8	69.0	73.9	4.9	0.0	0.0	0.0
D21	35.9	36.2	0.3	30.6	31.3	0.7	80.0	80.7	0.7	67.9	70.3	2.4	0.0	0.0	0.0
D22	34.2	34.4	0.2	29.0	29.6	0.6	78.4	79.0	0.6	66.7	67.5	0.8	0.0	0.0	0.0
D23	32.8	33.0	0.2	27.8	28.3	0.5	77.1	77.6	0.5	65.5	66.0	0.5	0.0	0.0	0.0
E1	37.6	36.9	-0.7	33.8	33.3	-0.5	83.2	82.7	-0.5	72.3	72.3	0.0	0.1	0.1	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
E2	39.7	39.0	-0.7	35.8	35.2	-0.6	85.1	84.6	-0.5	74.3	74.3	0.0	0.2	0.2	0.0
E3	40.9	40.2	-0.7	36.9	36.4	-0.5	86.3	85.8	-0.5	75.2	75.2	0.0	0.3	0.2	-0.1
E4	41.4	40.8	-0.6	37.5	37.0	-0.5	86.8	86.3	-0.5	76.0	76.0	0.0	0.3	0.3	0.0
E5	42.1	41.6	-0.5	38.0	37.6	-0.4	87.4	87.0	-0.4	76.9	76.9	0.0	0.4	0.3	-0.1
E6	43.0	42.6	-0.4	38.7	38.3	-0.4	88.1	87.7	-0.4	76.7	76.7	0.0	0.4	0.3	-0.1
E7	43.5	43.0	-0.5	39.2	38.8	-0.4	88.6	88.2	-0.4	77.9	77.9	0.0	0.4	0.3	-0.1
E8	43.8	43.3	-0.5	39.7	39.3	-0.4	89.1	88.7	-0.4	77.2	77.2	0.0	0.4	0.3	-0.1
E9	44.9	44.4	-0.5	40.8	40.4	-0.4	90.2	89.8	-0.4	75.7	75.7	0.0	0.5	0.5	0.0
E10	46.9	46.5	-0.4	42.5	42.3	-0.2	91.9	91.6	-0.3	76.0	76.0	0.0	0.7	0.7	0.0
E11	48.2	47.8	-0.4	43.6	43.4	-0.2	93.0	92.7	-0.3	75.9	75.9	0.0	1.2	1.1	-0.1
E12	47.5	47.1	-0.4	43.3	43.0	-0.3	92.6	92.4	-0.2	75.9	75.9	0.0	1.0	1.0	0.0
E13	46.0	45.5	-0.5	41.9	41.6	-0.3	91.3	91.0	-0.3	75.9	75.9	0.0	0.6	0.6	0.0
E14	44.4	44.1	-0.3	40.2	40.1	-0.1	89.6	89.4	-0.2	75.5	76.5	1.0	0.4	0.4	0.0
E15	43.4	43.4	0.0	39.0	39.2	0.2	88.4	88.5	0.1	74.7	76.4	1.7	0.3	0.3	0.0
E16	42.3	42.7	0.4	37.7	38.3	0.6	87.1	87.7	0.6	74.9	76.1	1.2	0.2	0.3	0.1
E17	40.7	41.4	0.7	36.2	37.1	0.9	85.6	86.4	0.8	72.5	76.1	3.6	0.2	0.2	0.0
E18	39.0	39.7	0.7	34.5	35.4	0.9	83.9	84.8	0.9	71.9	75.7	3.8	0.1	0.1	0.0
E19	37.4	37.9	0.5	33.0	33.8	0.8	82.3	83.1	0.8	70.9	75.6	4.7	0.1	0.1	0.0
E20	35.9	36.3	0.4	31.6	32.2	0.6	80.9	81.6	0.7	70.0	73.1	3.1	0.0	0.0	0.0
E21	34.6	34.9	0.3	30.3	30.8	0.5	79.6	80.2	0.6	69.2	71.7	2.5	0.0	0.0	0.0
E22	33.2	33.4	0.2	29.0	29.4	0.4	78.4	78.8	0.4	68.4	70.2	1.8	0.0	0.0	0.0
E23	32.1	32.3	0.2	27.9	28.2	0.3	77.3	77.6	0.3	67.7	68.7	1.0	0.0	0.0	0.0
F1	36.7	36.1	-0.6	33.9	33.4	-0.5	83.3	82.8	-0.5	75.1	75.1	0.0	0.1	0.1	0.0
F2	39.1	38.4	-0.7	36.0	35.4	-0.6	85.3	84.8	-0.5	77.2	77.2	0.0	0.2	0.2	0.0
F3	41.0	40.2	-0.8	37.6	36.9	-0.7	86.9	86.3	-0.6	78.2	78.2	0.0	0.3	0.3	0.0
F4	41.7	41.0	-0.7	38.4	37.8	-0.6	87.7	87.1	-0.6	79.0	79.0	0.0	0.4	0.4	0.0
F5	42.3	41.6	-0.7	38.9	38.4	-0.5	88.3	87.7	-0.6	80.0	80.0	0.0	0.5	0.4	-0.1
F6	43.2	42.7	-0.5	39.7	39.2	-0.5	89.1	88.6	-0.5	80.5	80.5	0.0	0.5	0.4	-0.1
F7	44.4	44.0	-0.4	40.6	40.2	-0.4	90.0	89.5	-0.5	81.3	81.3	0.0	0.5	0.4	-0.1
F8	45.6	45.2	-0.4	41.5	41.1	-0.4	90.8	90.4	-0.4	81.3	81.3	0.0	0.7	0.6	-0.1
F9	46.2	45.8	-0.4	42.1	41.7	-0.4	91.5	91.1	-0.4	80.5	80.5	0.0	0.7	0.6	-0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
F10	47.8	47.4	-0.4	43.5	43.2	-0.3	92.9	92.6	-0.3	78.9	78.9	0.0	1.1	1.0	-0.1
F11	49.0	48.7	-0.3	44.6	44.3	-0.3	94.0	93.7	-0.3	77.1	77.1	0.0	1.8	1.8	0.0
F12	48.5	48.2	-0.3	44.3	44.1	-0.2	93.7	93.4	-0.3	76.8	76.8	0.0	1.6	1.5	-0.1
F13	47.0	46.6	-0.4	42.8	42.5	-0.3	92.2	91.9	-0.3	76.7	76.7	0.0	1.0	0.9	-0.1
F14	45.4	45.1	-0.3	41.2	41.1	-0.1	90.6	90.5	-0.1	75.9	77.1	1.2	0.6	0.6	0.0
F15	43.8	43.9	0.1	39.8	40.0	0.2	89.2	89.4	0.2	76.2	77.4	1.2	0.4	0.4	0.0
F16	42.1	42.6	0.5	38.2	38.8	0.6	87.6	88.2	0.6	74.6	77.0	2.4	0.3	0.4	0.1
F17	40.2	40.9	0.7	36.5	37.2	0.7	85.9	86.6	0.7	73.6	76.7	3.1	0.2	0.3	0.1
F18	38.4	39.1	0.7	34.8	35.5	0.7	84.2	84.9	0.7	73.0	76.5	3.5	0.2	0.2	0.0
F19	36.9	37.4	0.5	33.4	33.9	0.5	82.8	83.3	0.5	72.4	75.7	3.3	0.1	0.1	0.0
F20	35.7	36.0	0.3	32.2	32.6	0.4	81.6	82.0	0.4	71.8	72.1	0.3	0.1	0.1	0.0
F21	34.7	34.9	0.2	31.2	31.5	0.3	80.5	80.8	0.3	71.2	72.0	0.8	0.0	0.0	0.0
F22	33.7	33.8	0.1	30.1	30.3	0.2	79.5	79.7	0.2	70.5	71.7	1.2	0.0	0.0	0.0
F23	32.8	32.9	0.1	29.0	29.2	0.2	78.4	78.6	0.2	69.9	71.1	1.2	0.0	0.0	0.0
G1	36.7	36.1	-0.6	34.7	34.2	-0.5	84.0	83.6	-0.4	76.8	76.8	0.0	0.1	0.1	0.0
G2	38.7	38.1	-0.6	36.3	35.8	-0.5	85.7	85.2	-0.5	78.0	78.0	0.0	0.3	0.3	0.0
G3	40.9	40.2	-0.7	38.1	37.4	-0.7	87.4	86.8	-0.6	78.7	78.7	0.0	0.4	0.3	-0.1
G4	42.3	41.6	-0.7	39.3	38.7	-0.6	88.7	88.0	-0.7	79.3	79.3	0.0	0.5	0.4	-0.1
G5	43.0	42.3	-0.7	40.0	39.4	-0.6	89.4	88.8	-0.6	80.0	80.0	0.0	0.6	0.5	-0.1
G6	43.7	43.1	-0.6	40.8	40.3	-0.5	90.2	89.7	-0.5	81.2	81.2	0.0	0.7	0.6	-0.1
G7	44.8	44.2	-0.6	41.7	41.2	-0.5	91.1	90.6	-0.5	82.2	82.2	0.0	0.7	0.6	-0.1
G8	46.2	45.7	-0.5	42.7	42.3	-0.4	92.1	91.7	-0.4	82.9	82.9	0.0	0.9	0.8	-0.1
G9	47.8	47.4	-0.4	43.8	43.4	-0.4	93.2	92.8	-0.4	83.2	83.2	0.0	1.5	1.4	-0.1
G10	49.0	48.7	-0.3	44.8	44.5	-0.3	94.2	93.9	-0.3	83.3	83.3	0.0	1.6	1.5	-0.1
G11	50.1	49.8	-0.3	45.7	45.5	-0.2	95.1	94.9	-0.2	81.4	81.4	0.0	2.6	2.6	0.0
G12	49.6	49.3	-0.3	45.4	45.2	-0.2	94.8	94.6	-0.2	77.7	77.7	0.0	2.3	2.2	-0.1
G13	47.7	47.3	-0.4	43.8	43.5	-0.3	93.1	92.8	-0.3	77.4	77.4	0.0	1.3	1.2	-0.1
G14	45.7	45.5	-0.2	42.0	41.9	-0.1	91.4	91.3	-0.1	76.8	78.2	1.4	0.8	0.8	0.0
G15	44.0	44.2	0.2	40.5	40.7	0.2	89.9	90.1	0.2	77.2	78.0	0.8	0.6	0.6	0.0
G16	42.2	42.7	0.5	38.9	39.4	0.5	88.3	88.8	0.5	74.9	77.6	2.7	0.4	0.5	0.1
G17	40.5	41.1	0.6	37.3	37.9	0.6	86.7	87.3	0.6	73.9	77.5	3.6	0.3	0.4	0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
G18	39.0	39.5	0.5	36.0	36.5	0.5	85.4	85.8	0.4	73.0	77.3	4.3	0.2	0.3	0.1
G19	37.8	38.1	0.3	34.8	35.1	0.3	84.2	84.5	0.3	72.2	74.8	2.6	0.2	0.2	0.0
G20	36.8	37.0	0.2	33.8	33.9	0.1	83.1	83.3	0.2	71.3	71.9	0.6	0.2	0.2	0.0
G21	36.0	36.0	0.0	32.8	32.9	0.1	82.2	82.3	0.1	70.3	70.4	0.1	0.1	0.1	0.0
G22	35.0	35.1	0.1	31.7	31.8	0.1	81.1	81.2	0.1	69.3	69.3	0.0	0.1	0.1	0.0
G23	34.1	34.1	0.0	30.6	30.7	0.1	80.0	80.1	0.1	68.6	69.5	0.9	0.0	0.0	0.0
H1	37.2	36.7	-0.5	35.6	35.1	-0.5	84.9	84.5	-0.4	77.0	77.0	0.0	0.2	0.2	0.0
H2	38.8	38.2	-0.6	36.9	36.4	-0.5	86.3	85.8	-0.5	77.2	77.2	0.0	0.3	0.3	0.0
H3	40.8	40.2	-0.6	38.5	37.9	-0.6	87.9	87.3	-0.6	78.0	78.0	0.0	0.5	0.4	-0.1
H4	43.2	42.5	-0.7	40.3	39.7	-0.6	89.6	89.1	-0.5	79.1	79.1	0.0	0.6	0.5	-0.1
H5	44.4	43.8	-0.6	41.4	40.9	-0.5	90.8	90.3	-0.5	80.5	80.5	0.0	0.8	0.7	-0.1
H6	45.0	44.4	-0.6	42.1	41.7	-0.4	91.5	91.1	-0.4	81.6	81.6	0.0	1.0	0.9	-0.1
H7	45.8	45.3	-0.5	43.0	42.6	-0.4	92.4	92.0	-0.4	82.6	82.6	0.0	1.2	1.1	-0.1
H8	47.0	46.5	-0.5	44.0	43.6	-0.4	93.3	93.0	-0.3	83.2	83.2	0.0	1.4	1.2	-0.2
H9	48.6	48.2	-0.4	45.1	44.8	-0.3	94.5	94.1	-0.4	83.9	83.9	0.0	1.6	1.5	-0.1
H10	50.5	50.2	-0.3	46.4	46.2	-0.2	95.8	95.5	-0.3	84.1	84.1	0.0	2.9	2.7	-0.2
H11	51.5	51.2	-0.3	47.2	47.0	-0.2	96.6	96.4	-0.2	84.6	84.6	0.0	4.1	4.0	-0.1
H12	50.7	50.4	-0.3	46.6	46.4	-0.2	96.0	95.8	-0.2	81.7	81.7	0.0	3.3	3.1	-0.2
H13	48.3	47.9	-0.4	44.7	44.4	-0.3	94.1	93.8	-0.3	78.4	78.4	0.0	1.8	1.7	-0.1
H14	46.2	46.0	-0.2	42.8	42.7	-0.1	92.2	92.1	-0.1	77.4	79.2	1.8	1.1	1.1	0.0
H15	44.5	44.8	0.3	41.3	41.5	0.2	90.6	90.9	0.3	77.4	79.0	1.6	0.7	0.8	0.1
H16	42.9	43.4	0.5	39.7	40.2	0.5	89.1	89.6	0.5	76.1	78.8	2.7	0.6	0.6	0.0
H17	41.5	41.9	0.4	38.4	38.9	0.5	87.8	88.2	0.4	75.0	78.5	3.5	0.5	0.5	0.0
H18	40.4	40.6	0.2	37.4	37.6	0.2	86.7	87.0	0.3	73.8	77.8	4.0	0.4	0.4	0.0
H19	39.3	39.4	0.1	36.3	36.4	0.1	85.7	85.8	0.1	72.4	75.3	2.9	0.3	0.3	0.0
H20	38.4	38.4	0.0	35.4	35.4	0.0	84.7	84.8	0.1	70.9	74.7	3.8	0.3	0.3	0.0
H21	37.5	37.5	0.0	34.5	34.5	0.0	83.9	83.8	-0.1	70.5	73.5	3.0	0.2	0.2	0.0
H22	36.7	36.6	-0.1	33.5	33.5	0.0	82.9	82.9	0.0	69.9	71.7	1.8	0.2	0.2	0.0
H23	35.7	35.6	-0.1	32.4	32.4	0.0	81.8	81.8	0.0	69.2	69.9	0.7	0.1	0.1	0.0
I1	37.9	37.4	-0.5	36.5	36.0	-0.5	85.8	85.4	-0.4	76.3	76.3	0.0	0.3	0.2	-0.1
I2	39.5	39.0	-0.5	37.8	37.3	-0.5	87.2	86.7	-0.5	76.9	76.9	0.0	0.4	0.3	-0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
I3	41.6	41.1	-0.5	39.5	39.1	-0.4	88.9	88.4	-0.5	78.5	78.5	0.0	0.7	0.6	-0.1
I4	43.7	43.2	-0.5	41.3	40.8	-0.5	90.6	90.2	-0.4	80.1	80.1	0.0	0.9	0.8	-0.1
I5	45.1	44.5	-0.6	42.5	42.0	-0.5	91.9	91.4	-0.5	80.9	80.9	0.0	1.2	1.0	-0.2
I6	45.7	45.0	-0.7	43.3	42.7	-0.6	92.6	92.1	-0.5	81.9	81.9	0.0	1.4	1.2	-0.2
I7	46.4	45.7	-0.7	44.1	43.5	-0.6	93.4	92.8	-0.6	82.9	82.9	0.0	1.6	1.4	-0.2
I8	47.3	46.7	-0.6	44.8	44.3	-0.5	94.2	93.7	-0.5	83.6	83.6	0.0	1.8	1.5	-0.3
I9	48.9	48.3	-0.6	46.0	45.5	-0.5	95.4	94.9	-0.5	84.2	84.2	0.0	2.3	2.1	-0.2
I10	51.3	51.0	-0.3	47.6	47.3	-0.3	97.0	96.7	-0.3	85.2	85.2	0.0	3.7	3.4	-0.3
I11	53.1	52.9	-0.2	48.9	48.8	-0.1	98.3	98.2	-0.1	85.4	85.4	0.0	6.4	6.3	-0.1
I12	51.7	51.3	-0.4	47.9	47.6	-0.3	97.3	97.0	-0.3	85.6	85.6	0.0	4.4	4.1	-0.3
I13	49.0	48.6	-0.4	45.7	45.3	-0.4	95.0	94.7	-0.3	82.1	82.1	0.0	2.3	2.1	-0.2
I14	47.1	46.9	-0.2	43.7	43.7	0.0	93.1	93.1	0.0	78.9	80.1	1.2	1.5	1.5	0.0
I15	45.5	45.8	0.3	42.1	42.5	0.4	91.5	91.9	0.4	78.4	80.0	1.6	1.1	1.2	0.1
I16	44.0	44.5	0.5	40.7	41.3	0.6	90.1	90.6	0.5	77.4	79.7	2.3	0.8	1.0	0.2
I17	42.8	43.1	0.3	39.6	40.0	0.4	89.0	89.4	0.4	76.4	79.1	2.7	0.7	0.7	0.0
I18	41.8	41.9	0.1	38.6	38.8	0.2	88.0	88.2	0.2	75.4	77.2	1.8	0.5	0.5	0.0
I19	40.8	40.7	-0.1	37.6	37.7	0.1	87.0	87.0	0.0	74.5	74.5	0.0	0.4	0.4	0.0
I20	39.9	39.8	-0.1	36.8	36.7	-0.1	86.1	86.1	0.0	73.8	73.8	0.0	0.4	0.3	-0.1
I21	39.1	38.9	-0.2	36.0	35.9	-0.1	85.3	85.2	-0.1	72.8	73.6	0.8	0.3	0.3	0.0
I22	38.2	38.1	-0.1	35.1	35.0	-0.1	84.4	84.3	-0.1	71.6	73.6	2.0	0.3	0.2	-0.1
I23	37.3	37.1	-0.2	34.1	34.0	-0.1	83.4	83.3	-0.1	70.3	73.0	2.7	0.2	0.2	0.0
J1	38.9	38.4	-0.5	37.5	37.0	-0.5	86.9	86.4	-0.5	76.0	76.0	0.0	0.4	0.3	-0.1
J2	40.8	40.3	-0.5	39.2	38.8	-0.4	88.6	88.1	-0.5	77.9	77.9	0.0	0.6	0.5	-0.1
J3	42.8	42.3	-0.5	41.0	40.5	-0.5	90.3	89.9	-0.4	79.0	79.0	0.0	0.8	0.7	-0.1
J4	44.2	43.6	-0.6	42.5	42.0	-0.5	91.9	91.3	-0.6	80.5	80.5	0.0	1.2	1.0	-0.2
J5	45.9	45.2	-0.7	44.1	43.4	-0.7	93.4	92.8	-0.6	82.0	82.0	0.0	1.6	1.3	-0.3
J6	47.1	46.4	-0.7	45.2	44.5	-0.7	94.5	93.9	-0.6	82.9	82.9	0.0	1.9	1.7	-0.2
J7	47.7	47.0	-0.7	45.9	45.2	-0.7	95.2	94.6	-0.6	83.1	83.1	0.0	2.2	1.9	-0.3
J8	48.5	47.8	-0.7	46.4	45.8	-0.6	95.8	95.2	-0.6	84.0	84.0	0.0	2.4	2.1	-0.3
J9	49.6	49.0	-0.6	47.2	46.6	-0.6	96.6	96.0	-0.6	85.1	85.1	0.0	3.0	2.6	-0.4
J10	52.1	51.7	-0.4	48.8	48.4	-0.4	98.2	97.8	-0.4	86.2	86.2	0.0	4.8	4.3	-0.5

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
J11	54.2	53.9	-0.3	50.3	50.1	-0.2	99.7	99.4	-0.3	86.7	86.7	0.0	8.7	8.4	-0.3
J12	53.1	52.8	-0.3	49.4	49.2	-0.2	98.8	98.6	-0.2	87.1	87.1	0.0	6.4	6.0	-0.4
J13	50.2	49.9	-0.3	46.9	46.7	-0.2	96.3	96.0	-0.3	85.3	85.3	0.0	3.3	3.1	-0.2
J14	48.1	48.0	-0.1	44.7	44.8	0.1	94.1	94.2	0.1	80.4	81.3	0.9	2.2	2.2	0.0
J15	46.1	46.5	0.4	42.8	43.3	0.5	92.2	92.6	0.4	78.5	81.1	2.6	1.4	1.5	0.1
J16	44.8	45.2	0.4	41.6	42.0	0.4	91.0	91.4	0.4	78.7	80.8	2.1	1.0	1.1	0.1
J17	44.1	44.3	0.2	40.8	41.1	0.3	90.2	90.4	0.2	77.6	80.5	2.9	0.9	1.0	0.1
J18	43.3	43.4	0.1	40.0	40.2	0.2	89.4	89.5	0.1	76.6	77.6	1.0	0.8	0.8	0.0
J19	42.4	42.4	0.0	39.1	39.2	0.1	88.5	88.6	0.1	76.0	76.2	0.2	0.6	0.6	0.0
J20	41.4	41.3	-0.1	38.2	38.2	0.0	87.6	87.6	0.0	74.4	74.4	0.0	0.5	0.4	-0.1
J21	40.4	40.2	-0.2	37.2	37.1	-0.1	86.5	86.4	-0.1	72.8	72.8	0.0	0.4	0.4	0.0
J22	39.4	39.2	-0.2	36.2	36.0	-0.2	85.5	85.4	-0.1	72.1	72.1	0.0	0.3	0.3	0.0
J23	38.5	38.3	-0.2	35.3	35.1	-0.2	84.6	84.5	-0.1	71.9	71.9	0.0	0.3	0.2	-0.1
K1	40.1	39.6	-0.5	38.7	38.2	-0.5	88.1	87.6	-0.5	76.3	76.3	0.0	0.5	0.5	0.0
K2	42.3	41.9	-0.4	40.8	40.4	-0.4	90.2	89.7	-0.5	78.3	78.3	0.0	0.9	0.8	-0.1
K3	44.0	43.5	-0.5	42.6	42.1	-0.5	92.0	91.5	-0.5	81.1	81.1	0.0	1.1	1.0	-0.1
K4	45.3	44.7	-0.6	44.0	43.5	-0.5	93.4	92.8	-0.6	82.7	82.7	0.0	1.6	1.4	-0.2
K5	46.8	46.1	-0.7	45.5	44.9	-0.6	94.8	94.2	-0.6	83.5	83.5	0.0	2.2	1.9	-0.3
K6	48.4	47.7	-0.7	46.8	46.2	-0.6	96.1	95.5	-0.6	84.2	84.2	0.0	2.8	2.4	-0.4
K7	49.3	48.6	-0.7	47.7	47.1	-0.6	97.1	96.5	-0.6	85.2	85.2	0.0	3.4	2.9	-0.5
K8	50.0	49.3	-0.7	48.4	47.8	-0.6	97.7	97.1	-0.6	86.1	86.1	0.0	3.9	3.4	-0.5
K9	51.2	50.5	-0.7	49.1	48.5	-0.6	98.5	97.9	-0.6	86.4	86.4	0.0	4.6	4.0	-0.6
K10	53.2	52.7	-0.5	50.3	49.8	-0.5	99.6	99.2	-0.4	87.4	87.4	0.0	7.0	6.3	-0.7
K11	55.3	55.0	-0.3	51.7	51.4	-0.3	101.1	100.7	-0.4	88.0	88.0	0.0	11.1	10.6	-0.5
K12	54.6	54.3	-0.3	51.1	50.9	-0.2	100.5	100.3	-0.2	88.4	88.4	0.0	9.0	8.6	-0.4
K13	51.2	50.9	-0.3	48.1	47.8	-0.3	97.5	97.2	-0.3	87.0	87.0	0.0	4.5	4.1	-0.4
K14	49.1	49.1	0.0	46.1	46.1	0.0	95.5	95.5	0.0	81.7	82.3	0.6	2.7	2.7	0.0
K15	47.9	48.2	0.3	44.9	45.1	0.2	94.3	94.5	0.2	81.6	82.2	0.6	1.7	1.9	0.2
K16	47.2	47.3	0.1	44.2	44.2	0.0	93.5	93.6	0.1	82.5	82.5	0.0	1.4	1.5	0.1
K17	46.6	46.5	-0.1	43.5	43.4	-0.1	92.8	92.7	-0.1	82.3	82.3	0.0	1.3	1.3	0.0
K18	45.7	45.5	-0.2	42.5	42.3	-0.2	91.8	91.7	-0.1	82.2	82.2	0.0	1.1	1.0	-0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
K19	44.6	44.4	-0.2	41.3	41.1	-0.2	90.7	90.5	-0.2	81.0	81.0	0.0	0.9	0.8	-0.1
K20	43.5	43.3	-0.2	40.2	40.1	-0.1	89.5	89.4	-0.1	79.1	79.1	0.0	0.8	0.7	-0.1
K21	42.3	42.1	-0.2	38.9	38.8	-0.1	88.3	88.2	-0.1	77.2	77.2	0.0	0.6	0.5	-0.1
K22	40.8	40.6	-0.2	37.5	37.3	-0.2	86.8	86.7	-0.1	75.3	75.3	0.0	0.4	0.3	-0.1
K23	39.7	39.5	-0.2	36.4	36.2	-0.2	85.7	85.6	-0.1	72.3	72.3	0.0	0.2	0.2	0.0
L1	41.4	40.9	-0.5	40.1	39.6	-0.5	89.5	89.0	-0.5	77.4	77.4	0.0	0.8	0.7	-0.1
L2	43.4	43.0	-0.4	42.1	41.6	-0.5	91.5	91.0	-0.5	80.6	80.6	0.0	1.1	0.9	-0.2
L3	45.0	44.5	-0.5	43.8	43.3	-0.5	93.1	92.6	-0.5	81.8	81.8	0.0	1.6	1.4	-0.2
L4	46.2	45.6	-0.6	45.0	44.5	-0.5	94.4	93.9	-0.5	81.7	81.7	0.0	2.1	1.8	-0.3
L5	47.4	46.8	-0.6	46.3	45.7	-0.6	95.6	95.1	-0.5	82.7	82.7	0.0	2.6	2.3	-0.3
L6	48.7	48.1	-0.6	47.5	46.8	-0.7	96.8	96.2	-0.6	84.4	84.4	0.0	3.1	2.7	-0.4
L7	50.2	49.5	-0.7	48.7	48.1	-0.6	98.0	97.4	-0.6	85.5	85.5	0.0	3.7	3.2	-0.5
L8	51.0	50.3	-0.7	49.5	48.9	-0.6	98.9	98.3	-0.6	86.5	86.5	0.0	4.6	4.0	-0.6
L9	52.4	51.8	-0.6	50.6	50.0	-0.6	100.0	99.4	-0.6	87.8	87.8	0.0	6.2	5.4	-0.8
L10	54.3	53.8	-0.5	51.6	51.1	-0.5	101.0	100.5	-0.5	87.8	87.8	0.0	10.1	9.2	-0.9
L11	56.6	56.3	-0.3	53.1	52.8	-0.3	102.5	102.1	-0.4	87.7	87.7	0.0	14.7	13.9	-0.8
L12	56.0	55.7	-0.3	52.7	52.4	-0.3	102.1	101.8	-0.3	86.9	86.9	0.0	13.4	12.9	-0.5
L13	52.8	52.4	-0.4	49.9	49.5	-0.4	99.3	98.9	-0.4	83.5	83.7	0.2	6.5	5.8	-0.7
L14	51.2	51.1	-0.1	48.2	48.2	0.0	97.6	97.5	-0.1	85.0	85.0	0.0	3.9	3.8	-0.1
L15	50.3	50.3	0.0	47.4	47.3	-0.1	96.7	96.7	0.0	86.8	86.8	0.0	2.8	2.8	0.0
L16	49.5	49.3	-0.2	46.5	46.3	-0.2	95.9	95.7	-0.2	86.4	86.4	0.0	2.4	2.3	-0.1
L17	48.7	48.3	-0.4	45.6	45.3	-0.3	95.0	94.6	-0.4	85.6	85.6	0.0	2.2	2.0	-0.2
L18	47.7	47.3	-0.4	44.6	44.3	-0.3	94.0	93.6	-0.4	84.7	84.7	0.0	1.9	1.7	-0.2
L19	46.6	46.2	-0.4	43.5	43.1	-0.4	92.8	92.5	-0.3	83.9	83.9	0.0	1.6	1.4	-0.2
L20	45.5	45.1	-0.4	42.3	42.0	-0.3	91.7	91.4	-0.3	82.8	82.8	0.0	1.2	1.1	-0.1
L21	44.3	44.0	-0.3	41.0	40.7	-0.3	90.4	90.1	-0.3	81.4	81.4	0.0	0.9	0.8	-0.1
L22	42.7	42.5	-0.2	39.4	39.2	-0.2	88.7	88.5	-0.2	78.9	78.9	0.0	0.6	0.6	0.0
L23	41.3	41.1	-0.2	37.9	37.7	-0.2	87.3	87.1	-0.2	75.3	75.3	0.0	0.5	0.4	-0.1
M1	42.4	41.9	-0.5	41.3	40.7	-0.6	90.6	90.1	-0.5	79.0	79.0	0.0	0.9	0.8	-0.1
M2	44.2	43.7	-0.5	43.0	42.5	-0.5	92.3	91.9	-0.4	80.6	80.6	0.0	1.5	1.3	-0.2
M3	45.5	45.0	-0.5	44.4	43.9	-0.5	93.8	93.2	-0.6	80.2	80.2	0.0	2.0	1.8	-0.2

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
M4	46.7	46.1	-0.6	45.7	45.1	-0.6	95.1	94.5	-0.6	82.0	82.0	0.0	2.3	2.0	-0.3
M5	48.1	47.4	-0.7	47.1	46.5	-0.6	96.5	95.9	-0.6	84.8	84.8	0.0	2.9	2.5	-0.4
M6	49.3	48.7	-0.6	48.4	47.8	-0.6	97.7	97.1	-0.6	86.4	86.4	0.0	3.5	3.0	-0.5
M7	50.7	50.1	-0.6	49.6	48.9	-0.7	98.9	98.3	-0.6	87.6	87.6	0.0	4.3	3.7	-0.6
M8	51.7	51.1	-0.6	50.2	49.6	-0.6	99.6	99.0	-0.6	87.8	87.8	0.0	4.9	4.3	-0.6
M9	52.9	52.2	-0.7	51.2	50.6	-0.6	100.5	100.0	-0.5	87.8	87.8	0.0	7.2	6.3	-0.9
M10	55.4	55.0	-0.4	52.8	52.3	-0.5	102.1	101.7	-0.4	84.7	84.7	0.0	13.2	12.1	-1.1
M11	58.1	57.8	-0.3	54.7	54.4	-0.3	104.1	103.8	-0.3	84.3	84.3	0.0	20.4	19.6	-0.8
M12	57.7	57.3	-0.4	54.4	54.1	-0.3	103.8	103.5	-0.3	84.6	84.6	0.0	20.0	19.4	-0.6
M13	54.6	54.2	-0.4	51.6	51.2	-0.4	101.0	100.6	-0.4	84.4	84.5	0.1	8.9	8.1	-0.8
M14	52.7	52.6	-0.1	49.4	49.3	-0.1	98.8	98.7	-0.1	88.5	88.5	0.0	5.1	5.0	-0.1
M15	51.6	51.4	-0.2	48.4	48.2	-0.2	97.8	97.6	-0.2	87.2	87.2	0.0	3.6	3.5	-0.1
M16	50.5	50.1	-0.4	47.3	47.0	-0.3	96.7	96.4	-0.3	83.8	83.8	0.0	3.0	2.8	-0.2
M17	49.4	48.9	-0.5	46.2	45.8	-0.4	95.6	95.2	-0.4	82.8	82.8	0.0	2.7	2.4	-0.3
M18	48.3	47.9	-0.4	45.2	44.8	-0.4	94.6	94.1	-0.5	82.0	82.0	0.0	2.2	2.0	-0.2
M19	47.4	46.9	-0.5	44.2	43.8	-0.4	93.6	93.2	-0.4	82.3	82.3	0.0	1.8	1.6	-0.2
M20	46.5	46.0	-0.5	43.3	42.9	-0.4	92.7	92.3	-0.4	82.4	82.4	0.0	1.5	1.4	-0.1
M21	45.5	45.1	-0.4	42.3	42.0	-0.3	91.7	91.3	-0.4	82.2	82.2	0.0	1.2	1.1	-0.1
M22	44.3	44.0	-0.3	41.1	40.8	-0.3	90.5	90.1	-0.4	81.0	81.0	0.0	0.9	0.9	0.0
M23	43.0	42.7	-0.3	39.7	39.4	-0.3	89.1	88.7	-0.4	78.4	78.4	0.0	0.7	0.7	0.0
N1	43.0	42.5	-0.5	41.9	41.4	-0.5	91.3	90.8	-0.5	79.3	79.3	0.0	1.3	1.1	-0.2
N2	44.7	44.2	-0.5	43.5	43.0	-0.5	92.9	92.4	-0.5	79.5	79.5	0.0	1.7	1.5	-0.2
N3	46.0	45.5	-0.5	45.0	44.4	-0.6	94.4	93.8	-0.6	81.9	81.9	0.0	2.1	1.8	-0.3
N4	47.4	46.8	-0.6	46.5	45.9	-0.6	95.9	95.3	-0.6	84.4	84.4	0.0	2.6	2.2	-0.4
N5	48.5	47.8	-0.7	47.6	46.9	-0.7	96.9	96.3	-0.6	85.0	85.0	0.0	3.1	2.7	-0.4
N6	49.2	48.6	-0.6	48.3	47.7	-0.6	97.7	97.0	-0.7	85.4	85.4	0.0	3.6	3.1	-0.5
N7	50.2	49.6	-0.6	49.1	48.5	-0.6	98.5	97.9	-0.6	85.8	85.8	0.0	4.3	3.7	-0.6
N8	51.8	51.1	-0.7	50.2	49.5	-0.7	99.5	98.9	-0.6	87.3	87.3	0.0	5.5	4.7	-0.8
N9	53.5	52.9	-0.6	51.8	51.2	-0.6	101.2	100.6	-0.6	84.1	84.1	0.0	8.3	7.2	-1.1
N10	56.3	55.9	-0.4	53.9	53.5	-0.4	103.3	102.8	-0.5	84.7	84.7	0.0	16.2	14.9	-1.3
N11	59.4	59.1	-0.3	56.2	55.9	-0.3	105.6	105.3	-0.3	85.4	85.4	0.0	26.0	24.9	-1.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
N12	59.3	59.0	-0.3	56.1	55.8	-0.3	105.4	105.1	-0.3	85.6	85.6	0.0	26.7	25.7	-1.0
N13	56.3	55.9	-0.4	53.1	52.7	-0.4	102.4	102.0	-0.4	85.3	85.6	0.3	12.2	11.1	-1.1
N14	53.9	53.7	-0.2	50.3	50.2	-0.1	99.7	99.6	-0.1	84.3	85.3	1.0	6.9	6.7	-0.2
N15	52.1	51.9	-0.2	48.8	48.6	-0.2	98.1	98.0	-0.1	88.6	88.6	0.0	4.5	4.3	-0.2
N16	51.1	50.7	-0.4	48.0	47.6	-0.4	97.3	97.0	-0.3	87.8	87.8	0.0	3.6	3.3	-0.3
N17	49.9	49.5	-0.4	46.8	46.3	-0.5	96.1	95.7	-0.4	86.3	86.3	0.0	2.8	2.6	-0.2
N18	48.7	48.2	-0.5	45.5	45.1	-0.4	94.9	94.4	-0.5	84.7	84.7	0.0	2.2	2.0	-0.2
N19	47.5	47.0	-0.5	44.3	43.9	-0.4	93.7	93.2	-0.5	80.4	80.4	0.0	1.9	1.7	-0.2
N20	46.6	46.2	-0.4	43.4	43.0	-0.4	92.8	92.4	-0.4	78.4	78.4	0.0	1.7	1.5	-0.2
N21	45.9	45.5	-0.4	42.6	42.2	-0.4	92.0	91.6	-0.4	80.4	80.4	0.0	1.4	1.3	-0.1
N22	45.1	44.7	-0.4	41.9	41.5	-0.4	91.2	90.8	-0.4	80.9	80.9	0.0	1.2	1.1	-0.1
N23	44.1	43.7	-0.4	40.9	40.5	-0.4	90.2	89.8	-0.4	79.9	79.9	0.0	1.0	0.9	-0.1
O1	43.5	43.0	-0.5	42.3	41.8	-0.5	91.7	91.2	-0.5	78.7	78.7	0.0	1.4	1.2	-0.2
O2	45.1	44.6	-0.5	44.0	43.5	-0.5	93.4	92.9	-0.5	79.4	79.4	0.0	1.8	1.6	-0.2
O3	46.5	45.9	-0.6	45.5	44.9	-0.6	94.9	94.3	-0.6	83.1	83.1	0.0	2.3	2.0	-0.3
O4	47.4	46.8	-0.6	46.5	45.8	-0.7	95.8	95.2	-0.6	83.6	83.6	0.0	2.6	2.3	-0.3
O5	47.8	47.2	-0.6	46.8	46.2	-0.6	96.2	95.5	-0.7	84.0	84.0	0.0	3.0	2.6	-0.4
O6	48.2	47.5	-0.7	47.1	46.4	-0.7	96.4	95.8	-0.6	84.2	84.2	0.0	3.2	2.8	-0.4
O7	49.1	48.4	-0.7	47.8	47.2	-0.6	97.2	96.6	-0.6	87.5	87.5	0.0	3.9	3.3	-0.6
O8	50.8	50.2	-0.6	49.3	48.6	-0.7	98.6	98.0	-0.6	87.1	87.1	0.0	5.0	4.3	-0.7
O9	53.9	53.2	-0.7	51.9	51.3	-0.6	101.3	100.6	-0.7	85.2	85.2	0.0	9.1	7.9	-1.2
O10	57.3	56.8	-0.5	55.0	54.6	-0.4	104.4	103.9	-0.5	85.6	85.6	0.0	19.4	17.6	-1.8
O11	60.9	60.5	-0.4	57.7	57.4	-0.3	107.1	106.8	-0.3	86.3	86.3	0.0	31.8	30.3	-1.5
O12	61.0	60.7	-0.3	57.6	57.3	-0.3	107.0	106.7	-0.3	86.7	86.7	0.0	34.6	33.0	-1.6
O13	57.5	57.2	-0.3	54.4	54.0	-0.4	103.7	103.4	-0.3	86.5	86.8	0.3	15.7	14.4	-1.3
O14	54.5	54.4	-0.1	51.1	51.1	0.0	100.5	100.4	-0.1	85.8	86.3	0.5	8.1	7.8	-0.3
O15	52.6	52.3	-0.3	49.3	49.1	-0.2	98.7	98.5	-0.2	85.6	85.6	0.0	5.1	4.8	-0.3
O16	51.5	51.1	-0.4	48.4	48.1	-0.3	97.8	97.5	-0.3	84.6	84.7	0.1	3.7	3.4	-0.3
O17	50.5	50.1	-0.4	47.4	47.1	-0.3	96.8	96.5	-0.3	85.2	85.2	0.0	3.1	2.8	-0.3
O18	49.5	49.1	-0.4	46.4	46.0	-0.4	95.8	95.4	-0.4	87.7	87.7	0.0	2.4	2.2	-0.2
O19	48.2	47.8	-0.4	45.1	44.7	-0.4	94.5	94.1	-0.4	84.5	84.5	0.0	2.0	1.8	-0.2

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
O20	46.8	46.3	-0.5	43.5	43.1	-0.4	92.9	92.5	-0.4	81.0	81.0	0.0	1.7	1.6	-0.1
O21	45.8	45.3	-0.5	42.4	42.0	-0.4	91.8	91.4	-0.4	77.1	77.1	0.0	1.5	1.3	-0.2
O22	45.2	44.7	-0.5	41.9	41.4	-0.5	91.2	90.8	-0.4	79.1	79.1	0.0	1.2	1.1	-0.1
O23	44.6	44.1	-0.5	41.2	40.8	-0.4	90.6	90.2	-0.4	79.6	79.6	0.0	1.0	0.9	-0.1
P1	43.8	43.3	-0.5	42.6	42.1	-0.5	92.0	91.5	-0.5	78.1	78.1	0.0	1.4	1.2	-0.2
P2	45.2	44.7	-0.5	44.1	43.6	-0.5	93.5	93.0	-0.5	81.0	81.0	0.0	1.8	1.6	-0.2
P3	46.2	45.7	-0.5	45.3	44.7	-0.6	94.7	94.1	-0.6	82.9	82.9	0.0	2.3	2.0	-0.3
P4	46.8	46.2	-0.6	45.9	45.3	-0.6	95.2	94.6	-0.6	81.6	81.6	0.0	2.3	2.0	-0.3
P5	47.1	46.5	-0.6	46.0	45.4	-0.6	95.4	94.8	-0.6	84.3	84.3	0.0	2.6	2.2	-0.4
P6	47.9	47.3	-0.6	46.9	46.3	-0.6	96.3	95.6	-0.7	85.4	85.4	0.0	2.8	2.4	-0.4
P7	49.0	48.3	-0.7	47.9	47.2	-0.7	97.2	96.6	-0.6	85.9	85.9	0.0	3.1	2.7	-0.4
P8	50.7	50.0	-0.7	49.3	48.7	-0.6	98.7	98.0	-0.7	85.6	85.6	0.0	5.0	4.4	-0.6
P9	53.9	53.3	-0.6	51.9	51.3	-0.6	101.3	100.7	-0.6	85.3	85.3	0.0	9.7	8.5	-1.2
P10	58.5	57.9	-0.6	56.0	55.5	-0.5	105.4	104.9	-0.5	86.6	86.6	0.0	22.7	20.5	-2.2
P11	62.4	62.0	-0.4	59.3	59.0	-0.3	108.7	108.3	-0.4	87.9	87.9	0.0	40.1	37.7	-2.4
P12	62.6	62.2	-0.4	59.1	58.8	-0.3	108.5	108.2	-0.3	88.1	88.1	0.0	41.5	39.0	-2.5
P13	58.7	58.4	-0.3	55.7	55.4	-0.3	105.1	104.8	-0.3	87.8	88.9	1.1	19.6	18.1	-1.5
P14	55.9	55.7	-0.2	52.7	52.6	-0.1	102.0	101.9	-0.1	87.1	87.4	0.3	9.7	9.4	-0.3
P15	53.7	53.5	-0.2	50.5	50.4	-0.1	99.9	99.7	-0.2	86.6	86.7	0.1	5.2	5.0	-0.2
P16	51.8	51.5	-0.3	48.7	48.5	-0.2	98.1	97.9	-0.2	85.7	85.8	0.1	3.4	3.3	-0.1
P17	50.5	50.2	-0.3	47.5	47.3	-0.2	96.9	96.6	-0.3	84.4	84.7	0.3	2.9	2.7	-0.2
P18	49.7	49.4	-0.3	46.8	46.5	-0.3	96.1	95.8	-0.3	87.7	87.7	0.0	2.5	2.3	-0.2
P19	48.8	48.4	-0.4	45.8	45.5	-0.3	95.2	94.9	-0.3	87.3	87.3	0.0	1.9	1.8	-0.1
P20	47.4	47.0	-0.4	44.3	43.9	-0.4	93.6	93.3	-0.3	85.2	85.2	0.0	1.6	1.5	-0.1
P21	45.9	45.5	-0.4	42.6	42.2	-0.4	92.0	91.6	-0.4	79.6	79.6	0.0	1.4	1.3	-0.1
P22	45.0	44.6	-0.4	41.6	41.2	-0.4	91.0	90.6	-0.4	77.0	77.0	0.0	1.3	1.1	-0.2
P23	44.4	44.0	-0.4	41.0	40.6	-0.4	90.4	89.9	-0.5	78.3	78.3	0.0	1.0	0.9	-0.1
Q1	43.7	43.2	-0.5	42.5	42.0	-0.5	91.9	91.3	-0.6	77.4	77.4	0.0	1.3	1.2	-0.1
Q2	44.8	44.3	-0.5	43.7	43.2	-0.5	93.1	92.6	-0.5	80.6	80.6	0.0	1.7	1.5	-0.2
Q3	45.6	45.0	-0.6	44.6	44.1	-0.5	94.0	93.4	-0.6	82.0	82.0	0.0	1.9	1.7	-0.2
Q4	46.6	46.0	-0.6	45.7	45.1	-0.6	95.1	94.5	-0.6	85.4	85.4	0.0	2.1	1.8	-0.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Q5	47.5	46.9	-0.6	46.6	46.0	-0.6	96.0	95.4	-0.6	88.3	88.3	0.0	2.4	2.1	-0.3
Q6	47.5	46.8	-0.7	46.4	45.8	-0.6	95.8	95.2	-0.6	85.0	85.0	0.0	2.1	1.8	-0.3
Q7	48.1	47.4	-0.7	46.9	46.2	-0.7	96.2	95.6	-0.6	86.8	86.8	0.0	2.2	1.9	-0.3
Q8	50.0	49.4	-0.6	48.5	47.9	-0.6	97.9	97.3	-0.6	87.8	87.8	0.0	3.8	3.3	-0.5
Q9	53.8	53.2	-0.6	52.0	51.4	-0.6	101.4	100.8	-0.6	86.6	86.6	0.0	9.9	8.7	-1.2
Q10	59.5	58.9	-0.6	57.1	56.6	-0.5	106.4	105.9	-0.5	88.9	88.9	0.0	25.9	23.2	-2.7
Q11	63.9	63.5	-0.4	60.9	60.5	-0.4	110.3	109.9	-0.4	90.1	90.1	0.0	47.8	44.5	-3.3
Q12	64.0	63.6	-0.4	60.7	60.4	-0.3	110.1	109.8	-0.3	91.9	91.9	0.0	51.0	47.5	-3.5
Q13	59.8	59.6	-0.2	57.0	56.8	-0.2	106.4	106.1	-0.3	90.4	91.5	1.1	23.2	21.8	-1.4
Q14	56.0	55.8	-0.2	52.9	52.8	-0.1	102.3	102.2	-0.1	89.2	89.7	0.5	9.2	9.1	-0.1
Q15	53.3	53.1	-0.2	49.9	49.8	-0.1	99.3	99.1	-0.2	86.4	86.4	0.0	4.5	4.4	-0.1
Q16	51.2	51.0	-0.2	47.9	47.7	-0.2	97.2	97.1	-0.1	85.3	85.3	0.0	2.9	2.8	-0.1
Q17	49.6	49.4	-0.2	46.5	46.4	-0.1	95.9	95.7	-0.2	83.4	83.7	0.3	2.2	2.2	0.0
Q18	48.9	48.7	-0.2	46.0	45.8	-0.2	95.4	95.2	-0.2	87.7	87.7	0.0	2.0	1.9	-0.1
Q19	48.5	48.2	-0.3	45.6	45.4	-0.2	95.0	94.7	-0.3	87.4	87.4	0.0	1.8	1.7	-0.1
Q20	47.6	47.2	-0.4	44.6	44.3	-0.3	93.9	93.6	-0.3	85.6	85.6	0.0	1.6	1.4	-0.2
Q21	46.4	46.0	-0.4	43.2	42.9	-0.3	92.6	92.2	-0.4	82.5	82.5	0.0	1.3	1.2	-0.1
Q22	45.2	44.9	-0.3	41.8	41.5	-0.3	91.2	90.9	-0.3	77.5	77.5	0.0	1.1	1.0	-0.1
Q23	44.4	44.0	-0.4	40.9	40.5	-0.4	90.3	89.9	-0.4	76.4	76.4	0.0	1.0	0.9	-0.1
R1	43.1	42.7	-0.4	41.9	41.4	-0.5	91.2	90.8	-0.4	76.7	76.7	0.0	1.1	1.0	-0.1
R2	44.1	43.7	-0.4	43.0	42.5	-0.5	92.4	91.9	-0.5	80.0	80.0	0.0	1.5	1.3	-0.2
R3	45.2	44.7	-0.5	44.3	43.7	-0.6	93.6	93.1	-0.5	81.6	81.6	0.0	1.7	1.5	-0.2
R4	46.5	46.0	-0.5	45.7	45.1	-0.6	95.1	94.5	-0.6	86.4	86.4	0.0	1.9	1.7	-0.2
R5	46.8	46.1	-0.7	45.9	45.3	-0.6	95.2	94.6	-0.6	86.2	86.2	0.0	1.7	1.5	-0.2
R6	45.9	45.3	-0.6	44.7	44.1	-0.6	94.1	93.5	-0.6	84.0	84.0	0.0	1.4	1.2	-0.2
R7	46.6	46.0	-0.6	45.2	44.6	-0.6	94.5	94.0	-0.5	86.0	86.0	0.0	1.6	1.4	-0.2
R8	48.8	48.3	-0.5	47.2	46.7	-0.5	96.6	96.1	-0.5	87.3	87.3	0.0	2.9	2.6	-0.3
R9	53.3	52.8	-0.5	51.2	50.8	-0.4	100.6	100.1	-0.5	89.3	89.3	0.0	9.1	8.0	-1.1
R10	60.2	59.7	-0.5	57.8	57.3	-0.5	107.2	106.7	-0.5	90.4	90.4	0.0	28.7	25.7	-3.0
R11	65.7	65.3	-0.4	62.7	62.3	-0.4	112.1	111.7	-0.4	93.6	93.6	0.0	55.8	51.7	-4.1
R12	66.0	65.6	-0.4	63.1	62.7	-0.4	112.4	112.1	-0.3	95.7	95.7	0.0	60.2	55.9	-4.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
R13	60.4	60.3	-0.1	57.9	57.8	-0.1	107.2	107.1	-0.1	94.4	94.7	0.3	25.5	23.9	-1.6
R14	54.2	54.2	0.0	51.1	51.1	0.0	100.5	100.5	0.0	85.8	91.4	5.6	7.4	7.3	-0.1
R15	51.4	51.3	-0.1	47.9	47.8	-0.1	97.2	97.2	0.0	87.1	87.7	0.6	3.4	3.3	-0.1
R16	50.8	50.6	-0.2	47.4	47.3	-0.1	96.8	96.6	-0.2	87.9	87.9	0.0	2.4	2.3	-0.1
R17	49.4	49.2	-0.2	46.0	45.8	-0.2	95.3	95.2	-0.1	84.1	84.1	0.0	1.9	1.9	0.0
R18	48.1	47.9	-0.2	44.7	44.6	-0.1	94.1	94.0	-0.1	82.8	82.8	0.0	1.8	1.8	0.0
R19	47.7	47.6	-0.1	44.6	44.4	-0.2	93.9	93.8	-0.1	86.3	86.3	0.0	1.6	1.6	0.0
R20	47.2	47.0	-0.2	44.1	43.9	-0.2	93.5	93.3	-0.2	84.5	84.5	0.0	1.4	1.3	-0.1
R21	46.3	46.0	-0.3	43.1	42.8	-0.3	92.5	92.2	-0.3	83.9	83.9	0.0	1.2	1.2	0.0
R22	45.4	45.1	-0.3	42.0	41.7	-0.3	91.4	91.1	-0.3	79.3	79.3	0.0	1.1	1.0	-0.1
R23	44.5	44.1	-0.4	41.0	40.6	-0.4	90.4	90.0	-0.4	76.9	76.9	0.0	0.9	0.9	0.0
S1	42.6	42.2	-0.4	41.3	40.8	-0.5	90.6	90.2	-0.4	76.0	76.0	0.0	1.0	0.9	-0.1
S2	43.6	43.1	-0.5	42.5	42.0	-0.5	91.8	91.3	-0.5	79.0	79.0	0.0	1.3	1.1	-0.2
S3	44.8	44.3	-0.5	43.8	43.3	-0.5	93.2	92.6	-0.6	82.5	82.5	0.0	1.4	1.2	-0.2
S4	45.7	45.2	-0.5	44.9	44.3	-0.6	94.2	93.7	-0.5	85.8	85.8	0.0	1.5	1.3	-0.2
S5	45.3	44.7	-0.6	44.3	43.7	-0.6	93.7	93.1	-0.6	83.1	83.1	0.0	1.4	1.2	-0.2
S6	45.1	44.6	-0.5	43.9	43.4	-0.5	93.3	92.8	-0.5	84.1	84.1	0.0	1.4	1.2	-0.2
S7	46.1	45.6	-0.5	44.7	44.2	-0.5	94.1	93.5	-0.6	85.9	85.9	0.0	1.3	1.2	-0.1
S8	48.2	47.8	-0.4	46.4	45.9	-0.5	95.7	95.3	-0.4	86.3	86.3	0.0	2.7	2.4	-0.3
S9	53.3	52.8	-0.5	51.1	50.6	-0.5	100.5	100.0	-0.5	88.4	88.4	0.0	8.3	7.3	-1.0
S10	61.6	61.1	-0.5	59.3	58.8	-0.5	108.7	108.2	-0.5	95.4	95.4	0.0	32.6	29.2	-3.4
S11	68.0	67.6	-0.4	65.3	64.8	-0.5	114.6	114.2	-0.4	96.9	96.9	0.0	65.3	60.2	-5.1
S12	68.8	68.5	-0.3	65.9	65.6	-0.3	115.3	114.9	-0.4	103.8	103.8	0.0	70.5	65.4	-5.1
S13	61.2	61.0	-0.2	58.5	58.4	-0.1	107.9	107.8	-0.1	95.9	98.2	2.3	28.2	26.3	-1.9
S14	54.5	54.3	-0.2	51.0	50.8	-0.2	100.4	100.2	-0.2	86.7	86.7	0.0	7.1	6.8	-0.3
S15	50.4	50.2	-0.2	46.8	46.6	-0.2	96.2	96.0	-0.2	82.8	82.8	0.0	3.2	3.0	-0.2
S16	49.6	49.3	-0.3	46.1	45.9	-0.2	95.5	95.3	-0.2	86.7	86.7	0.0	1.9	1.9	0.0
S17	49.1	48.8	-0.3	45.7	45.5	-0.2	95.0	94.9	-0.1	86.8	86.8	0.0	1.7	1.6	-0.1
S18	47.5	47.3	-0.2	44.1	44.0	-0.1	93.5	93.3	-0.2	86.0	86.0	0.0	1.4	1.3	-0.1
S19	46.6	46.4	-0.2	43.2	43.1	-0.1	92.6	92.5	-0.1	84.6	84.6	0.0	1.2	1.2	0.0
S20	46.2	46.0	-0.2	43.0	42.8	-0.2	92.4	92.2	-0.2	84.8	84.8	0.0	1.1	1.0	-0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
S21	45.5	45.2	-0.3	42.3	42.1	-0.2	91.7	91.4	-0.3	83.8	83.8	0.0	0.9	0.9	0.0
S22	44.7	44.5	-0.2	41.5	41.2	-0.3	90.9	90.6	-0.3	80.9	80.9	0.0	0.9	0.8	-0.1
S23	43.9	43.6	-0.3	40.6	40.3	-0.3	90.0	89.7	-0.3	77.5	77.9	0.4	0.8	0.7	-0.1
T1	42.0	41.6	-0.4	40.6	40.1	-0.5	89.9	89.5	-0.4	76.5	76.5	0.0	0.8	0.7	-0.1
T2	42.9	42.5	-0.4	41.7	41.2	-0.5	91.1	90.6	-0.5	78.0	78.0	0.0	0.9	0.8	-0.1
T3	44.0	43.5	-0.5	43.0	42.5	-0.5	92.4	91.8	-0.6	81.8	81.8	0.0	1.1	1.0	-0.1
T4	44.7	44.2	-0.5	43.8	43.3	-0.5	93.2	92.7	-0.5	84.9	84.9	0.0	1.3	1.2	-0.1
T5	44.5	44.0	-0.5	43.4	42.9	-0.5	92.8	92.3	-0.5	82.6	82.6	0.0	1.2	1.1	-0.1
T6	44.7	44.2	-0.5	43.4	42.9	-0.5	92.8	92.3	-0.5	84.4	84.4	0.0	1.2	1.0	-0.2
T7	45.4	45.0	-0.4	43.7	43.3	-0.4	93.1	92.7	-0.4	82.9	82.9	0.0	1.0	0.8	-0.2
T8	47.8	47.5	-0.3	45.6	45.2	-0.4	95.0	94.6	-0.4	85.4	85.4	0.0	2.5	2.2	-0.3
T9	53.7	53.3	-0.4	51.2	50.9	-0.3	100.6	100.2	-0.4	83.3	83.3	0.0	8.3	7.6	-0.7
T10	63.0	62.6	-0.4	60.6	60.2	-0.4	110.0	109.5	-0.5	94.1	94.1	0.0	38.5	35.1	-3.4
T11	70.2	69.7	-0.5	67.4	66.9	-0.5	116.8	116.3	-0.5	104.4	104.4	0.0	73.2	67.7	-5.5
T12	71.8	71.5	-0.3	69.1	68.8	-0.3	118.5	118.1	-0.4	121.2	121.2	0.0	76.7	71.7	-5.0
T13	60.7	60.4	-0.3	58.2	58.0	-0.2	107.6	107.3	-0.3	94.0	95.6	1.6	29.1	27.0	-2.1
T14	54.3	54.0	-0.3	50.7	50.4	-0.3	100.1	99.8	-0.3	86.7	86.7	0.0	6.0	5.6	-0.4
T15	50.7	50.4	-0.3	46.6	46.3	-0.3	95.9	95.7	-0.2	83.6	83.6	0.0	2.4	2.2	-0.2
T16	48.5	48.2	-0.3	44.9	44.7	-0.2	94.3	94.0	-0.3	83.2	83.2	0.0	1.5	1.5	0.0
T17	48.5	48.3	-0.2	45.2	44.9	-0.3	94.5	94.3	-0.2	87.3	87.3	0.0	1.4	1.3	-0.1
T18	47.6	47.4	-0.2	44.3	44.1	-0.2	93.7	93.4	-0.3	86.8	86.8	0.0	1.3	1.2	-0.1
T19	46.2	46.1	-0.1	42.8	42.7	-0.1	92.1	92.0	-0.1	83.1	83.1	0.0	1.1	1.1	0.0
T20	45.5	45.4	-0.1	42.1	42.0	-0.1	91.5	91.4	-0.1	84.4	84.4	0.0	1.1	1.0	-0.1
T21	44.8	44.6	-0.2	41.4	41.2	-0.2	90.8	90.6	-0.2	83.0	83.0	0.0	0.7	0.7	0.0
T22	44.0	43.8	-0.2	40.7	40.4	-0.3	90.0	89.8	-0.2	81.8	81.8	0.0	0.7	0.6	-0.1
T23	43.3	43.0	-0.3	39.9	39.6	-0.3	89.3	89.0	-0.3	78.7	78.7	0.0	0.6	0.5	-0.1
U1	41.2	41.0	-0.2	39.7	39.3	-0.4	89.0	88.6	-0.4	75.0	75.0	0.0	0.5	0.4	-0.1
U2	41.9	41.6	-0.3	40.6	40.2	-0.4	90.0	89.6	-0.4	77.1	77.1	0.0	0.8	0.7	-0.1
U3	43.0	42.6	-0.4	41.9	41.5	-0.4	91.3	90.8	-0.5	80.4	80.4	0.0	0.9	0.8	-0.1
U4	43.9	43.5	-0.4	43.0	42.5	-0.5	92.4	91.9	-0.5	83.9	83.9	0.0	1.2	1.0	-0.2
U5	44.0	43.5	-0.5	43.0	42.5	-0.5	92.3	91.8	-0.5	82.8	82.8	0.0	1.1	0.9	-0.2

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
U6	44.2	43.7	-0.5	42.9	42.4	-0.5	92.3	91.8	-0.5	83.4	83.4	0.0	1.0	0.8	-0.2
U7	44.9	44.6	-0.3	43.2	42.8	-0.4	92.5	92.1	-0.4	82.5	82.5	0.0	0.9	0.8	-0.1
U8	47.5	47.3	-0.2	45.2	45.0	-0.2	94.6	94.3	-0.3	84.3	84.3	0.0	2.2	2.0	-0.2
U9	53.5	53.4	-0.1	51.0	50.8	-0.2	100.4	100.2	-0.2	83.4	83.4	0.0	8.5	8.1	-0.4
U10	64.3	64.1	-0.2	61.8	61.6	-0.2	111.2	111.0	-0.2	93.3	93.3	0.0	52.1	53.0	0.9
U11	73.9	74.1	0.2	71.2	71.4	0.2	120.5	120.8	0.3	102.2	102.2	0.0	108.5	116.8	8.3
U12	76.6	76.4	-0.2	73.9	73.7	-0.2	123.3	123.1	-0.2	121.6	121.6	0.0	77.8	73.2	-4.6
U13	59.5	59.3	-0.2	57.0	56.8	-0.2	106.4	106.1	-0.3	91.5	91.5	0.0	25.9	24.9	-1.0
U14	52.8	52.6	-0.2	49.2	49.0	-0.2	98.6	98.3	-0.3	84.4	84.4	0.0	4.4	4.1	-0.3
U15	50.6	50.3	-0.3	46.3	46.0	-0.3	95.7	95.4	-0.3	84.8	84.8	0.0	1.6	1.5	-0.1
U16	47.8	47.6	-0.2	44.0	43.8	-0.2	93.4	93.2	-0.2	80.5	80.5	0.0	1.4	1.3	-0.1
U17	47.3	47.1	-0.2	43.9	43.7	-0.2	93.3	93.1	-0.2	86.1	86.1	0.0	1.1	1.0	-0.1
U18	47.1	46.9	-0.2	43.8	43.6	-0.2	93.2	93.0	-0.2	85.9	85.9	0.0	1.0	1.0	0.0
U19	46.1	46.0	-0.1	42.7	42.5	-0.2	92.0	91.9	-0.1	82.4	82.4	0.0	0.9	0.9	0.0
U20	45.4	45.3	-0.1	41.8	41.7	-0.1	91.2	91.1	-0.1	83.7	83.7	0.0	1.0	1.0	0.0
U21	44.5	44.3	-0.2	40.9	40.8	-0.1	90.3	90.2	-0.1	81.7	81.7	0.0	0.7	0.7	0.0
U22	43.5	43.3	-0.2	40.0	39.8	-0.2	89.3	89.1	-0.2	82.0	82.0	0.0	0.6	0.5	-0.1
U23	42.7	42.5	-0.2	39.2	38.9	-0.3	88.5	88.3	-0.2	78.9	78.9	0.0	0.5	0.5	0.0
V1	40.4	40.3	-0.1	38.7	38.5	-0.2	88.1	87.8	-0.3	74.4	74.4	0.0	0.3	0.3	0.0
V2	41.1	41.0	-0.1	39.8	39.5	-0.3	89.2	88.8	-0.4	76.1	76.1	0.0	0.6	0.6	0.0
V3	42.2	41.9	-0.3	41.1	40.7	-0.4	90.5	90.1	-0.4	78.8	78.8	0.0	0.8	0.7	-0.1
V4	43.3	42.9	-0.4	42.4	41.9	-0.5	91.7	91.3	-0.4	82.8	82.8	0.0	0.9	0.8	-0.1
V5	43.6	43.2	-0.4	42.6	42.2	-0.4	92.0	91.6	-0.4	82.6	82.6	0.0	1.1	0.9	-0.2
V6	43.9	43.4	-0.5	42.7	42.2	-0.5	92.0	91.6	-0.4	86.9	86.9	0.0	1.2	1.0	-0.2
V7	44.6	44.3	-0.3	43.1	42.7	-0.4	92.4	92.0	-0.4	87.5	87.5	0.0	1.1	1.0	-0.1
V8	46.7	46.5	-0.2	44.3	44.1	-0.2	93.7	93.5	-0.2	83.0	83.0	0.0	0.8	0.8	0.0
V9	52.1	52.0	-0.1	49.4	49.3	-0.1	98.8	98.6	-0.2	83.2	83.2	0.0	6.3	6.1	-0.2
V10	63.7	63.5	-0.2	61.1	60.9	-0.2	110.5	110.3	-0.2	91.7	91.7	0.0	45.3	44.9	-0.4
V11	75.2	75.1	-0.1	72.5	72.5	0.0	121.9	121.8	-0.1	105.1	105.1	0.0	100.4	105.0	4.6
V12	93.8	94.9	1.1	92.1	93.3	1.2	141.4	142.7	1.3	146.4	146.4	0.0	88.1	85.5	-2.6
V13	57.4	57.2	-0.2	54.3	54.1	-0.2	103.6	103.5	-0.1	85.0	85.0	0.0	25.4	24.5	-0.9

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
V14	50.7	50.5	-0.2	47.2	47.0	-0.2	96.5	96.4	-0.1	80.6	80.6	0.0	2.8	2.7	-0.1
V15	49.8	49.6	-0.2	45.5	45.2	-0.3	94.9	94.6	-0.3	84.2	84.2	0.0	1.5	1.4	-0.1
V16	48.3	48.1	-0.2	44.2	44.0	-0.2	93.6	93.4	-0.2	81.8	81.8	0.0	1.6	1.5	-0.1
V17	46.6	46.4	-0.2	42.9	42.8	-0.1	92.3	92.2	-0.1	85.1	85.1	0.0	1.1	1.0	-0.1
V18	46.3	46.2	-0.1	43.0	42.8	-0.2	92.3	92.1	-0.2	85.0	85.0	0.0	1.0	1.0	0.0
V19	45.8	45.7	-0.1	42.4	42.2	-0.2	91.8	91.6	-0.2	83.2	83.2	0.0	0.8	0.8	0.0
V20	45.2	45.1	-0.1	41.7	41.6	-0.1	91.1	91.0	-0.1	82.8	82.8	0.0	0.8	0.7	-0.1
V21	44.3	44.2	-0.1	40.7	40.6	-0.1	90.1	90.0	-0.1	81.6	81.6	0.0	0.6	0.6	0.0
V22	43.3	43.1	-0.2	39.6	39.4	-0.2	89.0	88.8	-0.2	81.5	81.5	0.0	0.5	0.5	0.0
V23	42.4	42.2	-0.2	38.7	38.5	-0.2	88.1	87.9	-0.2	79.9	79.9	0.0	0.4	0.4	0.0
W1	40.0	40.0	0.0	38.2	38.1	-0.1	87.6	87.4	-0.2	73.9	73.9	0.0	0.3	0.2	-0.1
W2	40.7	40.7	0.0	39.4	39.2	-0.2	88.8	88.5	-0.3	75.3	75.3	0.0	0.5	0.5	0.0
W3	41.7	41.6	-0.1	40.6	40.3	-0.3	90.0	89.7	-0.3	77.4	77.4	0.0	0.7	0.7	0.0
W4	42.8	42.5	-0.3	41.9	41.5	-0.4	91.2	90.9	-0.3	81.6	81.6	0.0	0.9	0.9	0.0
W5	43.3	42.9	-0.4	42.3	41.9	-0.4	91.7	91.3	-0.4	82.3	82.3	0.0	1.0	0.9	-0.1
W6	43.6	43.3	-0.3	42.5	42.1	-0.4	91.8	91.4	-0.4	85.5	85.5	0.0	1.0	0.9	-0.1
W7	44.4	44.1	-0.3	42.8	42.5	-0.3	92.2	91.9	-0.3	87.3	87.3	0.0	0.8	0.7	-0.1
W8	46.1	46.0	-0.1	43.6	43.5	-0.1	93.0	92.9	-0.1	82.8	82.8	0.0	0.5	0.5	0.0
W9	50.9	50.9	0.0	48.0	48.0	0.0	97.3	97.4	0.1	82.8	82.8	0.0	4.2	4.2	0.0
W10	61.6	61.6	0.0	58.7	58.8	0.1	108.1	108.1	0.0	86.3	86.3	0.0	39.3	39.8	0.5
W11	74.5	74.5	0.0	71.9	71.9	0.0	121.3	121.3	0.0	103.8	103.8	0.0	83.7	84.4	0.7
W12	94.7	94.3	-0.4	93.0	92.6	-0.4	142.3	142.0	-0.3	141.2	141.2	0.0	77.5	76.4	-1.1
W13	55.0	55.0	0.0	52.2	52.2	0.0	101.6	101.6	0.0	79.8	79.8	0.0	10.3	10.4	0.1
W14	49.1	49.0	-0.1	45.9	45.8	-0.1	95.2	95.2	0.0	78.0	78.0	0.0	2.0	2.0	0.0
W15	48.4	48.1	-0.3	44.3	44.1	-0.2	93.7	93.5	-0.2	84.1	84.1	0.0	1.1	1.0	-0.1
W16	48.2	48.0	-0.2	44.3	44.0	-0.3	93.6	93.4	-0.2	87.4	87.4	0.0	1.3	1.2	-0.1
W17	46.5	46.4	-0.1	43.1	42.9	-0.2	92.5	92.3	-0.2	84.2	84.2	0.0	1.1	1.1	0.0
W18	45.6	45.5	-0.1	42.3	42.1	-0.2	91.7	91.5	-0.2	84.3	84.3	0.0	1.0	1.0	0.0
W19	45.3	45.2	-0.1	41.9	41.7	-0.2	91.2	91.1	-0.1	82.5	82.5	0.0	0.9	0.8	-0.1
W20	45.1	45.0	-0.1	41.6	41.5	-0.1	90.9	90.8	-0.1	82.0	82.0	0.0	0.8	0.7	-0.1
W21	44.3	44.2	-0.1	40.7	40.6	-0.1	90.0	89.9	-0.1	81.6	81.6	0.0	0.6	0.6	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
W22	43.1	43.0	-0.1	39.4	39.3	-0.1	88.8	88.6	-0.2	80.4	80.4	0.0	0.5	0.5	0.0
W23	42.2	42.0	-0.2	38.4	38.2	-0.2	87.8	87.6	-0.2	80.0	80.0	0.0	0.3	0.3	0.0
X1	39.8	39.9	0.1	38.0	37.9	-0.1	87.3	87.3	0.0	73.5	73.5	0.0	0.2	0.2	0.0
X2	40.5	40.6	0.1	39.0	38.9	-0.1	88.4	88.3	-0.1	74.5	74.5	0.0	0.4	0.4	0.0
X3	41.3	41.3	0.0	40.1	39.8	-0.3	89.4	89.2	-0.2	76.4	76.4	0.0	0.6	0.6	0.0
X4	42.1	42.0	-0.1	41.1	40.8	-0.3	90.5	90.2	-0.3	80.4	80.4	0.0	0.8	0.7	-0.1
X5	42.6	42.3	-0.3	41.6	41.2	-0.4	90.9	90.6	-0.3	81.7	81.7	0.0	0.9	0.8	-0.1
X6	42.9	42.7	-0.2	41.6	41.3	-0.3	91.0	90.7	-0.3	82.8	82.8	0.0	0.7	0.7	0.0
X7	44.0	43.9	-0.1	42.3	42.0	-0.3	91.6	91.4	-0.2	86.3	86.3	0.0	0.7	0.6	-0.1
X8	46.4	46.4	0.0	43.8	43.8	0.0	93.1	93.2	0.1	83.9	83.9	0.0	0.6	0.6	0.0
X9	51.6	51.8	0.2	48.6	48.8	0.2	97.9	98.2	0.3	82.2	82.2	0.0	5.4	5.7	0.3
X10	62.4	62.8	0.4	59.6	60.1	0.5	109.0	109.4	0.4	92.4	92.4	0.0	42.4	43.7	1.3
X11	75.0	75.0	0.0	71.8	71.8	0.0	121.1	121.2	0.1	105.5	105.5	0.0	142.8	139.4	-3.4
X12	100.3	99.8	-0.5	98.3	97.8	-0.5	147.7	147.2	-0.5	140.0	140.0	0.0	100.3	98.8	-1.5
X13	56.6	56.8	0.2	54.0	54.2	0.2	103.4	103.6	0.2	86.3	86.3	0.0	15.7	16.1	0.4
X14	48.9	49.0	0.1	46.0	46.0	0.0	95.3	95.4	0.1	78.7	78.7	0.0	2.1	2.1	0.0
X15	47.1	47.0	-0.1	43.8	43.7	-0.1	93.2	93.0	-0.2	84.2	84.2	0.0	0.9	0.8	-0.1
X16	48.1	47.8	-0.3	45.0	44.7	-0.3	94.4	94.1	-0.3	88.0	88.0	0.0	1.1	1.1	0.0
X17	47.0	46.8	-0.2	43.7	43.5	-0.2	93.1	92.9	-0.2	85.5	85.5	0.0	1.0	1.0	0.0
X18	45.2	45.1	-0.1	41.9	41.8	-0.1	91.3	91.2	-0.1	83.7	83.7	0.0	1.0	1.0	0.0
X19	44.5	44.5	0.0	41.1	41.1	0.0	90.5	90.4	-0.1	80.6	80.6	0.0	0.8	0.8	0.0
X20	44.6	44.5	-0.1	41.1	41.1	0.0	90.5	90.4	-0.1	81.9	81.9	0.0	0.7	0.7	0.0
X21	44.2	44.1	-0.1	40.6	40.5	-0.1	90.0	89.9	-0.1	81.2	81.2	0.0	0.6	0.6	0.0
X22	43.2	43.0	-0.2	39.4	39.3	-0.1	88.8	88.7	-0.1	79.1	79.1	0.0	0.5	0.5	0.0
X23	42.0	41.9	-0.1	38.2	38.1	-0.1	87.6	87.5	-0.1	79.6	79.6	0.0	0.5	0.4	-0.1
Y1	39.4	39.7	0.3	37.5	37.5	0.0	86.9	86.9	0.0	73.1	73.1	0.0	0.2	0.2	0.0
Y2	40.1	40.4	0.3	38.4	38.4	0.0	87.8	87.8	0.0	74.0	74.0	0.0	0.3	0.3	0.0
Y3	40.7	40.9	0.2	39.3	39.2	-0.1	88.7	88.6	-0.1	75.7	75.7	0.0	0.5	0.5	0.0
Y4	41.4	41.4	0.0	40.3	40.1	-0.2	89.6	89.4	-0.2	79.0	79.0	0.0	0.6	0.6	0.0
Y5	42.0	41.8	-0.2	40.8	40.5	-0.3	90.2	89.9	-0.3	80.9	80.9	0.0	0.7	0.6	-0.1
Y6	42.5	42.4	-0.1	41.1	40.9	-0.2	90.5	90.2	-0.3	80.5	80.5	0.0	0.6	0.6	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Y7	44.0	44.0	0.0	42.1	42.0	-0.1	91.4	91.3	-0.1	85.0	85.0	0.0	0.6	0.6	0.0
Y8	46.9	47.1	0.2	44.3	44.4	0.1	93.7	93.8	0.1	84.4	84.4	0.0	1.0	1.2	0.2
Y9	52.8	53.1	0.3	49.8	50.2	0.4	99.2	99.5	0.3	81.3	81.3	0.0	6.5	6.9	0.4
Y10	66.4	66.5	0.1	61.7	62.0	0.3	111.0	111.4	0.4	95.0	95.0	0.0	64.7	64.8	0.1
Y11	74.8	74.6	-0.2	72.1	71.9	-0.2	121.4	121.2	-0.2	102.1	102.1	0.0	160.1	154.0	-6.1
Y12	70.3	70.6	0.3	67.4	67.8	0.4	116.8	117.2	0.4	102.7	102.7	0.0	52.7	56.2	3.5
Y13	55.9	56.6	0.7	53.5	54.2	0.7	102.9	103.6	0.7	90.4	90.4	0.0	11.6	13.4	1.8
Y14	48.9	49.2	0.3	46.0	46.4	0.4	95.4	95.8	0.4	76.8	76.8	0.0	1.5	1.8	0.3
Y15	46.1	46.1	0.0	43.0	43.0	0.0	92.4	92.4	0.0	80.7	80.7	0.0	0.8	0.8	0.0
Y16	47.0	46.8	-0.2	44.0	43.8	-0.2	93.3	93.1	-0.2	85.9	85.9	0.0	1.1	1.0	-0.1
Y17	47.0	46.8	-0.2	43.8	43.5	-0.3	93.1	92.9	-0.2	86.3	86.3	0.0	0.8	0.8	0.0
Y18	45.4	45.4	0.0	42.2	42.0	-0.2	91.5	91.4	-0.1	83.2	83.2	0.0	0.9	0.9	0.0
Y19	44.0	44.1	0.1	40.7	40.7	0.0	90.0	90.0	0.0	79.1	79.1	0.0	0.8	0.8	0.0
Y20	44.0	44.0	0.0	40.6	40.6	0.0	89.9	89.9	0.0	80.3	80.3	0.0	0.7	0.6	-0.1
Y21	43.8	43.8	0.0	40.4	40.3	-0.1	89.8	89.7	-0.1	80.7	80.7	0.0	0.6	0.5	-0.1
Y22	43.1	43.0	-0.1	39.5	39.4	-0.1	88.9	88.7	-0.2	79.2	79.2	0.0	0.5	0.4	-0.1
Y23	41.9	41.8	-0.1	38.2	38.1	-0.1	87.6	87.4	-0.2	78.9	78.9	0.0	0.4	0.4	0.0
Z1	39.3	39.6	0.3	37.2	37.4	0.2	86.5	86.7	0.2	72.6	72.6	0.0	0.2	0.2	0.0
Z2	39.8	40.3	0.5	38.0	38.2	0.2	87.3	87.6	0.3	74.1	74.1	0.0	0.3	0.4	0.1
Z3	40.4	40.8	0.4	38.8	38.9	0.1	88.1	88.3	0.2	75.0	75.0	0.0	0.5	0.5	0.0
Z4	40.9	41.0	0.1	39.5	39.5	0.0	88.9	88.9	0.0	77.6	77.6	0.0	0.6	0.6	0.0
Z5	41.4	41.4	0.0	40.1	40.0	-0.1	89.5	89.4	-0.1	79.9	79.9	0.0	0.6	0.5	-0.1
Z6	42.0	42.0	0.0	40.6	40.5	-0.1	89.9	89.8	-0.1	79.3	79.3	0.0	0.5	0.5	0.0
Z7	43.5	43.6	0.1	41.6	41.7	0.1	91.0	91.1	0.1	83.5	83.5	0.0	0.6	0.6	0.0
Z8	46.4	46.8	0.4	44.0	44.3	0.3	93.4	93.7	0.3	84.3	84.3	0.0	1.3	1.7	0.4
Z9	51.7	52.4	0.7	49.0	49.7	0.7	98.4	99.1	0.7	82.5	82.5	0.0	4.1	5.1	1.0
Z10	59.8	61.0	1.2	57.6	58.8	1.2	107.0	108.2	1.2	95.8	95.8	0.0	18.2	22.2	4.0
Z11	65.2	66.2	1.0	62.0	63.0	1.0	111.3	112.4	1.1	97.7	97.7	0.0	39.4	44.9	5.5
Z12	67.2	67.5	0.3	64.2	64.6	0.4	113.6	114.0	0.4	97.8	97.8	0.0	47.0	50.8	3.8
Z13	54.9	56.0	1.1	52.7	53.8	1.1	102.0	103.2	1.2	92.6	92.6	0.0	7.6	10.1	2.5
Z14	48.2	48.8	0.6	45.5	46.2	0.7	94.8	95.5	0.7	79.4	79.4	0.0	1.5	1.9	0.4

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
Z15	45.3	45.6	0.3	42.2	42.5	0.3	91.6	91.9	0.3	77.6	77.6	0.0	0.9	1.0	0.1
Z16	45.8	45.8	0.0	42.7	42.6	-0.1	92.0	92.0	0.0	82.7	82.7	0.0	0.9	0.9	0.0
Z17	46.6	46.5	-0.1	43.3	43.1	-0.2	92.6	92.5	-0.1	85.8	85.8	0.0	0.8	0.8	0.0
Z18	45.9	45.8	-0.1	42.6	42.4	-0.2	91.9	91.8	-0.1	84.0	84.0	0.0	0.9	0.9	0.0
Z19	44.3	44.3	0.0	40.8	40.9	0.1	90.2	90.2	0.0	78.8	78.8	0.0	0.8	0.8	0.0
Z20	43.7	43.8	0.1	40.2	40.3	0.1	89.6	89.6	0.0	78.5	78.5	0.0	0.6	0.6	0.0
Z21	43.5	43.5	0.0	40.0	40.0	0.0	89.4	89.4	0.0	79.8	79.8	0.0	0.5	0.5	0.0
Z22	43.0	43.0	0.0	39.5	39.4	-0.1	88.8	88.7	-0.1	79.5	79.5	0.0	0.5	0.5	0.0
Z23	42.1	42.0	-0.1	38.4	38.3	-0.1	87.8	87.7	-0.1	77.9	77.9	0.0	0.4	0.4	0.0
AA1	39.5	40.1	0.6	37.4	38.0	0.6	86.8	87.3	0.5	74.8	74.8	0.0	0.2	0.3	0.1
AA2	39.9	40.6	0.7	37.9	38.4	0.5	87.3	87.8	0.5	73.9	73.9	0.0	0.3	0.4	0.1
AA3	40.3	41.0	0.7	38.5	38.9	0.4	87.8	88.2	0.4	76.0	76.0	0.0	0.4	0.5	0.1
AA4	40.5	41.0	0.5	39.0	39.2	0.2	88.4	88.6	0.2	76.3	76.3	0.0	0.5	0.5	0.0
AA5	40.9	41.1	0.2	39.6	39.6	0.0	88.9	89.0	0.1	78.9	78.9	0.0	0.5	0.5	0.0
AA6	41.5	41.7	0.2	40.1	40.2	0.1	89.5	89.5	0.0	78.9	78.9	0.0	0.6	0.6	0.0
AA7	42.9	43.2	0.3	41.2	41.4	0.2	90.5	90.8	0.3	81.6	81.6	0.0	0.7	0.8	0.1
AA8	45.5	46.1	0.6	43.3	43.9	0.6	92.7	93.2	0.5	83.7	83.7	0.0	1.2	1.5	0.3
AA9	50.2	51.3	1.1	48.0	49.1	1.1	97.4	98.4	1.0	85.6	85.6	0.0	2.9	3.9	1.0
AA10	58.2	59.5	1.3	56.1	57.4	1.3	105.5	106.8	1.3	95.6	95.6	0.0	12.5	16.2	3.7
AA11	63.8	64.6	0.8	60.6	61.5	0.9	109.9	110.8	0.9	95.7	95.7	0.0	36.9	41.3	4.4
AA12	65.4	65.8	0.4	62.4	62.7	0.3	111.8	112.1	0.3	96.0	96.0	0.0	42.5	45.9	3.4
AA13	54.4	55.6	1.2	52.1	53.3	1.2	101.5	102.7	1.2	94.3	94.3	0.0	6.8	9.2	2.4
AA14	48.5	49.2	0.7	45.4	46.1	0.7	94.7	95.5	0.8	81.4	81.4	0.0	1.8	2.2	0.4
AA15	46.3	46.6	0.3	42.9	43.2	0.3	92.2	92.5	0.3	79.0	79.0	0.0	1.3	1.4	0.1
AA16	45.8	46.0	0.2	42.1	42.1	0.0	91.4	91.5	0.1	79.6	79.6	0.0	1.0	1.0	0.0
AA17	46.6	46.6	0.0	42.9	42.9	0.0	92.3	92.2	-0.1	84.2	84.2	0.0	1.1	1.1	0.0
AA18	46.4	46.4	0.0	42.9	42.8	-0.1	92.3	92.2	-0.1	84.6	84.6	0.0	1.1	1.1	0.0
AA19	45.3	45.3	0.0	41.6	41.6	0.0	91.0	91.0	0.0	80.8	80.8	0.0	1.0	1.0	0.0
AA20	44.2	44.3	0.1	40.5	40.6	0.1	89.9	90.0	0.1	77.4	77.4	0.0	0.8	0.8	0.0
AA21	43.7	43.8	0.1	40.1	40.1	0.0	89.4	89.4	0.0	79.0	79.0	0.0	0.6	0.6	0.0
AA22	43.3	43.3	0.0	39.6	39.5	-0.1	89.0	88.9	-0.1	78.8	78.8	0.0	0.5	0.5	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AA23	42.7	42.6	-0.1	38.9	38.8	-0.1	88.3	88.1	-0.2	78.3	78.3	0.0	0.4	0.4	0.0
AB1	39.9	40.7	0.8	37.8	38.6	0.8	87.1	88.0	0.9	78.0	78.0	0.0	0.2	0.3	0.1
AB2	40.4	41.4	1.0	38.4	39.3	0.9	87.8	88.7	0.9	78.6	78.6	0.0	0.3	0.4	0.1
AB3	40.8	41.9	1.1	39.0	39.8	0.8	88.4	89.2	0.8	78.8	78.8	0.0	0.4	0.5	0.1
AB4	40.9	41.8	0.9	39.4	40.0	0.6	88.7	89.3	0.6	78.0	78.0	0.0	0.5	0.5	0.0
AB5	41.0	41.6	0.6	39.7	40.1	0.4	89.1	89.5	0.4	77.9	77.9	0.0	0.5	0.6	0.1
AB6	41.5	42.0	0.5	40.2	40.6	0.4	89.6	90.0	0.4	78.4	78.4	0.0	0.6	0.7	0.1
AB7	42.8	43.4	0.6	41.2	41.8	0.6	90.6	91.2	0.6	79.6	79.6	0.0	0.6	0.7	0.1
AB8	45.5	46.4	0.9	43.8	44.7	0.9	93.2	94.1	0.9	83.0	83.0	0.0	1.1	1.4	0.3
AB9	50.1	51.3	1.2	48.3	49.5	1.2	97.6	98.9	1.3	89.6	89.6	0.0	3.2	4.3	1.1
AB10	56.7	58.0	1.3	54.3	55.6	1.3	103.7	105.0	1.3	90.9	90.9	0.0	11.6	14.7	3.1
AB11	62.3	63.0	0.7	59.1	59.8	0.7	108.5	109.2	0.7	92.2	92.2	0.0	34.5	38.0	3.5
AB12	64.3	64.5	0.2	61.1	61.4	0.3	110.5	110.7	0.2	92.7	92.7	0.0	39.8	42.6	2.8
AB13	54.1	55.2	1.1	51.5	52.6	1.1	100.9	102.0	1.1	91.8	91.8	0.0	7.2	9.4	2.2
AB14	48.5	49.3	0.8	45.4	46.2	0.8	94.7	95.6	0.9	83.3	83.3	0.0	2.1	2.6	0.5
AB15	46.1	46.6	0.5	42.6	43.1	0.5	92.0	92.5	0.5	78.6	78.6	0.0	1.5	1.6	0.1
AB16	45.3	45.7	0.4	41.7	42.0	0.3	91.1	91.4	0.3	79.8	79.8	0.0	1.2	1.2	0.0
AB17	45.8	45.9	0.1	42.1	42.2	0.1	91.5	91.6	0.1	81.6	81.6	0.0	1.1	1.1	0.0
AB18	46.1	46.1	0.0	42.6	42.5	-0.1	91.9	91.9	0.0	84.2	84.2	0.0	1.1	1.0	-0.1
AB19	45.5	45.6	0.1	42.0	42.0	0.0	91.4	91.3	-0.1	82.6	82.6	0.0	0.9	0.9	0.0
AB20	44.4	44.5	0.1	40.8	40.8	0.0	90.1	90.2	0.1	77.8	77.8	0.0	0.7	0.7	0.0
AB21	43.5	43.6	0.1	39.8	39.8	0.0	89.2	89.2	0.0	78.1	78.1	0.0	0.6	0.6	0.0
AB22	43.0	43.0	0.0	39.4	39.3	-0.1	88.7	88.6	-0.1	77.9	77.9	0.0	0.5	0.5	0.0
AB23	42.5	42.5	0.0	38.8	38.7	-0.1	88.2	88.0	-0.2	77.9	77.9	0.0	0.5	0.5	0.0
AC1	39.7	40.6	0.9	37.4	38.3	0.9	86.8	87.7	0.9	77.8	77.8	0.0	0.2	0.3	0.1
AC2	40.6	41.7	1.1	38.6	39.6	1.0	88.0	88.9	0.9	79.6	79.6	0.0	0.3	0.4	0.1
AC3	41.3	42.5	1.2	39.6	40.6	1.0	89.0	90.0	1.0	81.3	81.3	0.0	0.4	0.5	0.1
AC4	42.0	43.2	1.2	40.5	41.5	1.0	89.9	90.9	1.0	82.3	82.3	0.0	0.6	0.7	0.1
AC5	42.3	43.3	1.0	41.1	42.0	0.9	90.5	91.4	0.9	82.7	82.7	0.0	0.6	0.7	0.1
AC6	42.9	43.9	1.0	41.8	42.7	0.9	91.2	92.1	0.9	83.4	83.4	0.0	0.6	0.7	0.1
AC7	44.2	45.2	1.0	43.0	44.0	1.0	92.4	93.4	1.0	85.1	85.1	0.0	0.7	0.8	0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AC8	46.4	47.5	1.1	45.0	46.1	1.1	94.4	95.5	1.1	87.1	87.1	0.0	1.4	1.8	0.4
AC9	49.5	50.7	1.2	47.6	48.8	1.2	96.9	98.2	1.3	87.2	87.2	0.0	3.2	4.3	1.1
AC10	55.9	57.1	1.2	53.3	54.4	1.1	102.6	103.8	1.2	88.4	88.4	0.0	11.9	14.5	2.6
AC11	61.5	62.0	0.5	58.5	59.0	0.5	107.9	108.3	0.4	90.0	90.0	0.0	32.7	35.4	2.7
AC12	62.2	62.5	0.3	59.1	59.4	0.3	108.4	108.7	0.3	89.4	89.4	0.0	35.4	37.7	2.3
AC13	54.1	55.1	1.0	51.4	52.5	1.1	100.8	101.9	1.1	89.2	89.2	0.0	8.0	10.0	2.0
AC14	47.6	48.8	1.2	44.9	46.1	1.2	94.3	95.5	1.2	83.2	83.2	0.0	1.7	2.3	0.6
AC15	44.5	45.5	1.0	41.5	42.4	0.9	90.8	91.8	1.0	83.3	83.3	0.0	0.8	1.1	0.3
AC16	43.4	44.1	0.7	40.1	40.7	0.6	89.5	90.1	0.6	82.8	82.8	0.0	0.6	0.7	0.1
AC17	43.7	44.1	0.4	40.2	40.5	0.3	89.5	89.9	0.4	79.6	79.6	0.0	0.6	0.6	0.0
AC18	44.7	44.8	0.1	41.3	41.3	0.0	90.6	90.7	0.1	82.7	82.7	0.0	0.7	0.7	0.0
AC19	44.9	45.0	0.1	41.4	41.5	0.1	90.8	90.9	0.1	83.0	83.0	0.0	0.7	0.8	0.1
AC20	44.0	44.1	0.1	40.5	40.5	0.0	89.8	89.9	0.1	79.8	79.8	0.0	0.6	0.6	0.0
AC21	42.7	42.8	0.1	39.1	39.1	0.0	88.5	88.5	0.0	77.2	77.2	0.0	0.4	0.4	0.0
AC22	42.0	42.1	0.1	38.4	38.4	0.0	87.8	87.8	0.0	77.4	77.4	0.0	0.3	0.3	0.0
AC23	41.5	41.5	0.0	37.9	37.8	-0.1	87.2	87.2	0.0	76.9	76.9	0.0	0.3	0.3	0.0
AD1	38.9	39.8	0.9	36.2	37.0	0.8	85.6	86.4	0.8	73.7	73.7	0.0	0.2	0.2	0.0
AD2	40.1	41.1	1.0	37.5	38.4	0.9	86.9	87.8	0.9	76.1	76.1	0.0	0.3	0.3	0.0
AD3	40.5	41.7	1.2	38.5	39.5	1.0	87.9	88.8	0.9	78.6	78.6	0.0	0.4	0.5	0.1
AD4	41.4	42.6	1.2	39.7	40.7	1.0	89.1	90.1	1.0	80.9	80.9	0.0	0.5	0.6	0.1
AD5	42.4	43.5	1.1	41.0	41.9	0.9	90.3	91.3	1.0	82.7	82.7	0.0	0.6	0.7	0.1
AD6	43.1	44.2	1.1	41.9	42.9	1.0	91.2	92.2	1.0	84.2	84.2	0.0	0.7	0.8	0.1
AD7	43.9	45.0	1.1	42.7	43.7	1.0	92.1	93.1	1.0	84.9	84.9	0.0	0.8	1.0	0.2
AD8	45.2	46.3	1.1	43.6	44.6	1.0	92.9	94.0	1.1	83.4	83.4	0.0	1.3	1.7	0.4
AD9	48.6	49.9	1.3	46.4	47.6	1.2	95.8	97.0	1.2	81.4	81.4	0.0	2.8	3.8	1.0
AD10	55.4	56.5	1.1	52.6	53.7	1.1	102.0	103.1	1.1	87.0	87.0	0.0	11.9	14.1	2.2
AD11	60.2	60.8	0.6	57.0	57.5	0.5	106.4	106.9	0.5	88.3	88.3	0.0	29.9	31.9	2.0
AD12	61.0	61.3	0.3	57.8	58.1	0.3	107.2	107.4	0.2	87.6	87.6	0.0	33.0	34.6	1.6
AD13	54.9	55.7	0.8	51.9	52.8	0.9	101.3	102.2	0.9	87.3	87.3	0.0	8.4	10.2	1.8
AD14	48.7	49.8	1.1	46.0	47.1	1.1	95.4	96.5	1.1	84.2	84.2	0.0	2.3	3.0	0.7
AD15	44.6	45.7	1.1	41.9	43.0	1.1	91.2	92.4	1.2	80.4	80.4	0.0	1.0	1.3	0.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AD16	43.0	43.9	0.9	40.1	41.0	0.9	89.4	90.3	0.9	77.8	77.8	0.0	0.7	0.8	0.1
AD17	42.8	43.5	0.7	39.6	40.3	0.7	89.0	89.7	0.7	78.9	78.9	0.0	0.6	0.7	0.1
AD18	43.6	44.0	0.4	40.3	40.7	0.4	89.7	90.0	0.3	80.5	80.5	0.0	0.6	0.7	0.1
AD19	44.2	44.4	0.2	40.8	40.9	0.1	90.1	90.3	0.2	82.5	82.5	0.0	0.6	0.7	0.1
AD20	43.7	43.9	0.2	40.3	40.4	0.1	89.6	89.7	0.1	81.1	81.1	0.0	0.6	0.6	0.0
AD21	42.4	42.6	0.2	38.9	39.0	0.1	88.3	88.4	0.1	77.0	77.0	0.0	0.4	0.4	0.0
AD22	41.4	41.5	0.1	37.8	37.9	0.1	87.2	87.3	0.1	76.9	76.9	0.0	0.3	0.3	0.0
AD23	40.7	40.7	0.0	37.1	37.1	0.0	86.4	86.5	0.1	75.7	75.7	0.0	0.3	0.3	0.0
AE1	38.7	39.6	0.9	35.8	36.6	0.8	85.2	86.0	0.8	69.3	69.3	0.0	0.2	0.3	0.1
AE2	40.0	41.0	1.0	37.0	37.8	0.8	86.4	87.2	0.8	71.6	71.6	0.0	0.3	0.4	0.1
AE3	39.9	41.1	1.2	37.4	38.3	0.9	86.8	87.7	0.9	72.6	72.6	0.0	0.4	0.5	0.1
AE4	40.1	41.3	1.2	38.1	39.0	0.9	87.5	88.4	0.9	75.0	75.0	0.0	0.4	0.5	0.1
AE5	41.1	42.2	1.1	39.3	40.1	0.8	88.6	89.5	0.9	79.4	79.4	0.0	0.5	0.6	0.1
AE6	42.2	43.3	1.1	40.4	41.3	0.9	89.8	90.7	0.9	81.5	81.5	0.0	0.7	0.8	0.1
AE7	43.2	44.4	1.2	41.4	42.4	1.0	90.8	91.7	0.9	81.4	81.4	0.0	0.9	1.1	0.2
AE8	45.1	46.4	1.3	43.0	44.1	1.1	92.4	93.5	1.1	82.6	82.6	0.0	1.3	1.6	0.3
AE9	48.8	50.2	1.4	46.5	47.7	1.2	95.9	97.1	1.2	84.4	84.4	0.0	2.7	3.7	1.0
AE10	54.9	55.9	1.0	52.0	53.0	1.0	101.4	102.4	1.0	86.2	86.2	0.0	11.6	13.4	1.8
AE11	59.2	59.7	0.5	55.9	56.3	0.4	105.2	105.6	0.4	86.2	86.2	0.0	25.9	27.3	1.4
AE12	59.8	60.1	0.3	56.6	56.8	0.2	106.0	106.2	0.2	86.5	86.5	0.0	31.8	32.5	0.7
AE13	52.7	53.8	1.1	50.1	51.2	1.1	99.5	100.6	1.1	86.2	86.2	0.0	5.3	7.0	1.7
AE14	51.5	52.1	0.6	48.2	48.9	0.7	97.5	98.2	0.7	84.9	84.9	0.0	4.5	5.1	0.6
AE15	46.2	47.3	1.1	43.5	44.6	1.1	92.9	94.0	1.1	84.3	84.3	0.0	1.3	1.7	0.4
AE16	44.1	45.2	1.1	41.4	42.5	1.1	90.8	91.9	1.1	83.0	83.0	0.0	0.8	1.0	0.2
AE17	43.2	44.1	0.9	40.3	41.3	1.0	89.7	90.6	0.9	81.3	81.3	0.0	0.7	0.8	0.1
AE18	43.3	43.9	0.6	40.1	40.8	0.7	89.4	90.1	0.7	79.2	79.2	0.0	0.7	0.8	0.1
AE19	43.9	44.3	0.4	40.6	40.9	0.3	89.9	90.3	0.4	81.1	81.1	0.0	0.6	0.7	0.1
AE20	43.8	44.0	0.2	40.4	40.6	0.2	89.8	90.0	0.2	81.2	81.2	0.0	0.6	0.6	0.0
AE21	42.7	43.0	0.3	39.4	39.6	0.2	88.7	88.9	0.2	78.7	78.7	0.0	0.5	0.5	0.0
AE22	41.4	41.7	0.3	37.9	38.2	0.3	87.3	87.5	0.2	76.3	76.3	0.0	0.4	0.4	0.0
AE23	40.4	40.6	0.2	36.9	37.1	0.2	86.2	86.5	0.3	75.5	75.5	0.0	0.3	0.3	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AF1	39.2	40.2	1.0	36.4	37.3	0.9	85.7	86.7	1.0	73.3	73.3	0.0	0.2	0.3	0.1
AF2	40.7	41.7	1.0	37.6	38.6	1.0	87.0	87.9	0.9	74.8	74.8	0.0	0.3	0.4	0.1
AF3	40.6	41.9	1.3	37.9	39.0	1.1	87.3	88.3	1.0	76.4	76.4	0.0	0.4	0.5	0.1
AF4	40.5	41.8	1.3	38.3	39.3	1.0	87.7	88.7	1.0	78.2	78.2	0.0	0.4	0.6	0.2
AF5	41.0	42.3	1.3	39.2	40.1	0.9	88.6	89.5	0.9	80.2	80.2	0.0	0.5	0.6	0.1
AF6	42.0	43.2	1.2	40.1	41.1	1.0	89.5	90.5	1.0	81.7	81.7	0.0	0.7	0.8	0.1
AF7	43.1	44.4	1.3	41.1	42.2	1.1	90.5	91.5	1.0	82.8	82.8	0.0	0.7	0.9	0.2
AF8	44.9	46.3	1.4	42.9	44.0	1.1	92.2	93.4	1.2	82.7	82.7	0.0	1.1	1.5	0.4
AF9	48.2	49.5	1.3	46.1	47.3	1.2	95.4	96.6	1.2	83.7	83.7	0.0	2.5	3.4	0.9
AF10	54.2	55.1	0.9	51.3	52.1	0.8	100.7	101.5	0.8	85.2	85.2	0.0	10.7	12.2	1.5
AF11	58.2	58.6	0.4	54.8	55.2	0.4	104.2	104.5	0.3	85.3	85.3	0.0	22.4	23.6	1.2
AF12	58.5	58.8	0.3	55.5	55.7	0.2	104.9	105.1	0.2	85.4	85.4	0.0	27.6	28.1	0.5
AF13	51.6	52.8	1.2	49.0	50.1	1.1	98.4	99.5	1.1	85.4	85.4	0.0	4.0	5.4	1.4
AF14	48.2	49.4	1.2	45.5	46.7	1.2	94.9	96.1	1.2	84.6	84.6	0.0	2.0	2.8	0.8
AF15	48.8	49.3	0.5	45.3	45.9	0.6	94.7	95.3	0.6	82.4	82.4	0.0	3.0	3.3	0.3
AF16	46.2	46.9	0.7	42.9	43.6	0.7	92.2	92.9	0.7	81.7	81.7	0.0	1.1	1.3	0.2
AF17	44.1	45.0	0.9	41.0	41.9	0.9	90.4	91.3	0.9	81.4	81.4	0.0	0.8	1.0	0.2
AF18	43.6	44.4	0.8	40.5	41.3	0.8	89.8	90.7	0.9	80.4	80.4	0.0	0.7	0.8	0.1
AF19	44.0	44.5	0.5	40.7	41.3	0.6	90.1	90.6	0.5	79.3	79.3	0.0	0.6	0.7	0.1
AF20	43.8	44.2	0.4	40.5	40.9	0.4	89.9	90.3	0.4	80.5	80.5	0.0	0.6	0.6	0.0
AF21	43.1	43.5	0.4	39.9	40.2	0.3	89.2	89.6	0.4	79.4	79.4	0.0	0.5	0.6	0.1
AF22	41.9	42.3	0.4	38.6	39.0	0.4	88.0	88.3	0.3	76.2	76.2	0.0	0.4	0.5	0.1
AF23	40.6	41.0	0.4	37.2	37.7	0.5	86.6	87.0	0.4	75.3	75.3	0.0	0.3	0.4	0.1
AG1	39.7	40.8	1.1	37.0	38.0	1.0	86.3	87.4	1.1	76.8	76.8	0.0	0.3	0.3	0.0
AG2	41.4	42.5	1.1	38.3	39.3	1.0	87.7	88.7	1.0	77.8	77.8	0.0	0.3	0.4	0.1
AG3	41.6	42.9	1.3	38.8	39.9	1.1	88.2	89.2	1.0	78.7	78.7	0.0	0.4	0.5	0.1
AG4	41.2	42.6	1.4	38.9	40.0	1.1	88.3	89.4	1.1	79.3	79.3	0.0	0.4	0.6	0.2
AG5	41.1	42.5	1.4	39.2	40.3	1.1	88.6	89.6	1.0	79.3	79.3	0.0	0.4	0.6	0.2
AG6	41.4	42.7	1.3	39.6	40.7	1.1	89.0	90.0	1.0	78.1	78.1	0.0	0.5	0.6	0.1
AG7	42.5	43.7	1.2	40.6	41.7	1.1	90.0	91.1	1.1	79.3	79.3	0.0	0.5	0.7	0.2
AG8	44.6	45.8	1.2	42.6	43.8	1.2	92.0	93.1	1.1	82.2	82.2	0.0	0.9	1.2	0.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AG9	47.8	49.1	1.3	45.5	46.7	1.2	94.9	96.1	1.2	83.9	83.9	0.0	2.2	3.0	0.8
AG10	53.8	54.6	0.8	50.7	51.5	0.8	100.1	100.9	0.8	84.3	84.3	0.0	9.8	11.0	1.2
AG11	57.0	57.5	0.5	53.6	54.0	0.4	103.0	103.4	0.4	84.4	84.4	0.0	18.2	19.2	1.0
AG12	57.3	57.6	0.3	54.3	54.5	0.2	103.7	103.9	0.2	84.6	84.6	0.0	23.0	23.2	0.2
AG13	50.9	52.0	1.1	48.3	49.3	1.0	97.7	98.7	1.0	84.5	84.5	0.0	3.5	4.5	1.0
AG14	47.0	48.3	1.3	44.4	45.7	1.3	93.8	95.1	1.3	84.2	84.2	0.0	1.5	2.1	0.6
AG15	45.1	46.3	1.2	42.4	43.6	1.2	91.8	93.0	1.2	83.3	83.3	0.0	1.0	1.4	0.4
AG16	44.5	45.5	1.0	41.5	42.4	0.9	90.8	91.8	1.0	79.9	79.9	0.0	0.8	1.0	0.2
AG17	45.3	45.8	0.5	41.7	42.3	0.6	91.1	91.7	0.6	79.1	79.1	0.0	0.9	1.0	0.1
AG18	45.1	45.6	0.5	41.5	42.0	0.5	90.9	91.3	0.4	78.4	78.4	0.0	0.9	1.0	0.1
AG19	44.8	45.2	0.4	41.2	41.6	0.4	90.6	90.9	0.3	77.8	77.8	0.0	0.8	0.8	0.0
AG20	43.9	44.3	0.4	40.5	40.8	0.3	89.9	90.2	0.3	79.3	79.3	0.0	0.6	0.7	0.1
AG21	43.2	43.6	0.4	40.0	40.3	0.3	89.3	89.6	0.3	79.4	79.4	0.0	0.5	0.6	0.1
AG22	42.3	42.6	0.3	39.0	39.4	0.4	88.4	88.7	0.3	77.6	77.6	0.0	0.4	0.5	0.1
AG23	40.9	41.4	0.5	37.6	38.1	0.5	87.0	87.5	0.5	75.1	75.1	0.0	0.4	0.4	0.0
AH1	39.3	40.5	1.2	36.6	37.7	1.1	86.0	87.1	1.1	74.8	74.8	0.0	0.2	0.3	0.1
AH2	41.1	42.1	1.0	38.0	39.0	1.0	87.4	88.3	0.9	74.9	74.9	0.0	0.3	0.4	0.1
AH3	42.2	43.3	1.1	39.0	40.0	1.0	88.4	89.4	1.0	76.2	76.2	0.0	0.4	0.5	0.1
AH4	41.9	43.2	1.3	39.1	40.2	1.1	88.5	89.6	1.1	77.3	77.3	0.0	0.4	0.6	0.2
AH5	41.5	42.9	1.4	39.2	40.4	1.2	88.6	89.7	1.1	78.5	78.5	0.0	0.4	0.6	0.2
AH6	41.9	43.2	1.3	39.9	41.0	1.1	89.2	90.4	1.2	79.8	79.8	0.0	0.5	0.6	0.1
AH7	42.9	44.2	1.3	40.9	42.1	1.2	90.3	91.5	1.2	81.4	81.4	0.0	0.5	0.7	0.2
AH8	44.7	46.1	1.4	42.5	43.7	1.2	91.9	93.1	1.2	82.1	82.1	0.0	1.0	1.4	0.4
AH9	48.1	49.4	1.3	45.5	46.6	1.1	94.8	96.0	1.2	84.9	84.9	0.0	2.1	2.9	0.8
AH10	53.6	54.3	0.7	50.4	51.2	0.8	99.8	100.5	0.7	88.8	88.8	0.0	9.3	10.3	1.0
AH11	55.8	56.3	0.5	52.5	53.0	0.5	101.9	102.3	0.4	88.7	88.7	0.0	13.1	14.0	0.9
AH12	55.9	56.3	0.4	52.8	53.1	0.3	102.2	102.5	0.3	89.0	89.0	0.0	13.0	13.5	0.5
AH13	50.6	51.6	1.0	48.0	49.0	1.0	97.4	98.3	0.9	88.8	88.8	0.0	3.1	4.0	0.9
AH14	46.5	47.7	1.2	44.0	45.3	1.3	93.4	94.6	1.2	89.1	89.1	0.0	1.4	1.9	0.5
AH15	44.1	45.3	1.2	41.7	42.9	1.2	91.1	92.3	1.2	84.6	84.6	0.0	0.9	1.3	0.4
AH16	42.9	44.0	1.1	40.4	41.5	1.1	89.7	90.9	1.2	81.1	81.1	0.0	0.7	0.9	0.2

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AH17	42.2	43.1	0.9	39.3	40.2	0.9	88.6	89.5	0.9	76.8	76.8	0.0	0.5	0.6	0.1
AH18	42.6	43.2	0.6	39.2	39.8	0.6	88.5	89.1	0.6	76.8	76.8	0.0	0.4	0.5	0.1
AH19	43.1	43.4	0.3	39.5	39.8	0.3	88.8	89.2	0.4	75.7	75.7	0.0	0.6	0.7	0.1
AH20	43.4	43.6	0.2	39.9	40.1	0.2	89.3	89.5	0.2	77.8	77.8	0.0	0.6	0.6	0.0
AH21	43.6	43.7	0.1	40.2	40.3	0.1	89.5	89.6	0.1	78.8	78.8	0.0	0.6	0.6	0.0
AH22	42.9	43.1	0.2	39.6	39.7	0.1	89.0	89.1	0.1	78.0	78.0	0.0	0.5	0.5	0.0
AH23	41.6	41.8	0.2	38.3	38.5	0.2	87.6	87.9	0.3	75.4	75.4	0.0	0.4	0.4	0.0
AI1	38.6	39.7	1.1	35.7	36.7	1.0	85.1	86.0	0.9	73.9	73.9	0.0	0.2	0.3	0.1
AI2	40.1	41.1	1.0	37.0	38.0	1.0	86.4	87.3	0.9	74.6	74.6	0.0	0.2	0.3	0.1
AI3	42.4	43.4	1.0	38.9	39.8	0.9	88.3	89.1	0.8	74.4	74.4	0.0	0.5	0.6	0.1
AI4	43.0	44.1	1.1	39.6	40.6	1.0	89.0	89.9	0.9	76.3	76.3	0.0	0.5	0.6	0.1
AI5	42.9	44.2	1.3	39.8	40.9	1.1	89.2	90.3	1.1	77.0	77.0	0.0	0.5	0.6	0.1
AI6	43.1	44.4	1.3	40.3	41.4	1.1	89.6	90.8	1.2	78.1	78.1	0.0	0.5	0.7	0.2
AI7	44.0	45.3	1.3	41.2	42.4	1.2	90.6	91.7	1.1	79.5	79.5	0.0	0.7	1.0	0.3
AI8	46.2	47.4	1.2	43.2	44.3	1.1	92.6	93.6	1.0	81.4	81.4	0.0	1.4	1.8	0.4
AI9	49.4	50.4	1.0	46.3	47.3	1.0	95.7	96.7	1.0	85.1	85.1	0.0	3.1	3.8	0.7
AI10	52.7	53.4	0.7	49.9	50.7	0.8	99.2	100.0	0.8	88.4	88.4	0.0	8.0	8.8	0.8
AI11	54.7	55.3	0.6	51.8	52.3	0.5	101.1	101.7	0.6	88.5	88.5	0.0	10.0	10.8	0.8
AI12	55.0	55.4	0.4	52.0	52.4	0.4	101.4	101.8	0.4	88.8	88.8	0.0	10.1	10.7	0.6
AI13	51.0	51.8	0.8	48.4	49.2	0.8	97.7	98.5	0.8	88.5	88.5	0.0	4.1	4.7	0.6
AI14	46.9	47.9	1.0	44.3	45.3	1.0	93.6	94.7	1.1	88.3	88.3	0.0	1.6	2.0	0.4
AI15	44.4	45.5	1.1	41.8	42.9	1.1	91.2	92.3	1.1	85.3	85.3	0.0	0.8	1.1	0.3
AI16	43.4	44.4	1.0	40.7	41.8	1.1	90.1	91.1	1.0	80.3	80.3	0.0	0.7	0.9	0.2
AI17	43.1	43.9	0.8	40.1	40.9	0.8	89.4	90.3	0.9	78.6	78.6	0.0	0.7	0.9	0.2
AI18	42.3	43.0	0.7	39.0	39.7	0.7	88.4	89.1	0.7	76.8	76.8	0.0	0.5	0.6	0.1
AI19	41.3	41.9	0.6	38.1	38.7	0.6	87.5	88.1	0.6	75.6	75.6	0.0	0.3	0.4	0.1
AI20	41.6	42.0	0.4	38.3	38.7	0.4	87.7	88.1	0.4	75.8	75.8	0.0	0.4	0.4	0.0
AI21	41.8	42.1	0.3	38.5	38.7	0.2	87.9	88.1	0.2	77.8	77.8	0.0	0.4	0.4	0.0
AI22	41.6	41.8	0.2	38.3	38.5	0.2	87.7	87.8	0.1	77.9	77.9	0.0	0.3	0.4	0.1
AI23	41.1	41.3	0.2	37.8	37.9	0.1	87.2	87.3	0.1	76.3	76.3	0.0	0.3	0.3	0.0
AJ1	38.4	39.2	0.8	35.3	36.1	0.8	84.6	85.4	0.8	71.7	71.7	0.0	0.1	0.2	0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AJ2	38.8	39.9	1.1	35.8	36.8	1.0	85.2	86.1	0.9	73.9	73.9	0.0	0.2	0.2	0.0
AJ3	40.5	41.6	1.1	37.1	38.1	1.0	86.5	87.4	0.9	75.7	75.7	0.0	0.2	0.3	0.1
AJ4	42.7	43.7	1.0	39.0	39.8	0.8	88.4	89.2	0.8	76.6	76.6	0.0	0.5	0.6	0.1
AJ5	44.2	45.2	1.0	40.4	41.2	0.8	89.8	90.6	0.8	77.6	77.6	0.0	1.0	1.1	0.1
AJ6	45.0	46.0	1.0	41.3	42.1	0.8	90.6	91.5	0.9	78.7	78.7	0.0	1.3	1.5	0.2
AJ7	46.0	47.0	1.0	42.3	43.1	0.8	91.7	92.5	0.8	79.7	79.7	0.0	1.7	2.0	0.3
AJ8	47.1	48.0	0.9	43.6	44.4	0.8	92.9	93.7	0.8	80.6	80.6	0.0	2.2	2.6	0.4
AJ9	48.0	48.9	0.9	45.2	46.1	0.9	94.6	95.5	0.9	84.9	84.9	0.0	2.4	2.9	0.5
AJ10	51.7	52.3	0.6	49.0	49.7	0.7	98.3	99.1	0.8	87.3	87.3	0.0	6.1	6.7	0.6
AJ11	53.6	54.1	0.5	50.7	51.2	0.5	100.0	100.6	0.6	87.4	87.4	0.0	7.6	8.2	0.6
AJ12	53.7	54.2	0.5	50.7	51.2	0.5	100.1	100.6	0.5	87.6	87.6	0.0	7.0	7.6	0.6
AJ13	50.4	51.1	0.7	47.8	48.6	0.8	97.2	97.9	0.7	87.2	87.2	0.0	3.4	4.0	0.6
AJ14	47.1	47.9	0.8	44.3	45.2	0.9	93.7	94.6	0.9	86.8	86.8	0.0	2.0	2.4	0.4
AJ15	45.1	45.9	0.8	42.1	43.0	0.9	91.5	92.3	0.8	85.6	85.6	0.0	1.3	1.6	0.3
AJ16	43.8	44.6	0.8	40.8	41.7	0.9	90.2	91.1	0.9	79.3	79.3	0.0	0.9	1.1	0.2
AJ17	42.7	43.5	0.8	39.8	40.7	0.9	89.2	90.1	0.9	78.6	78.6	0.0	0.5	0.7	0.2
AJ18	41.6	42.4	0.8	38.7	39.6	0.9	88.1	89.0	0.9	76.5	76.5	0.0	0.4	0.5	0.1
AJ19	41.0	41.8	0.8	38.1	38.8	0.7	87.4	88.2	0.8	75.7	75.7	0.0	0.3	0.4	0.1
AJ20	41.0	41.6	0.6	37.8	38.4	0.6	87.2	87.7	0.5	74.8	74.8	0.0	0.3	0.4	0.1
AJ21	41.1	41.5	0.4	37.7	38.1	0.4	87.1	87.5	0.4	76.5	76.5	0.0	0.3	0.3	0.0
AJ22	40.7	41.0	0.3	37.5	37.8	0.3	86.9	87.2	0.3	77.3	77.3	0.0	0.3	0.3	0.0
AJ23	40.3	40.5	0.2	37.1	37.3	0.2	86.4	86.7	0.3	76.6	76.6	0.0	0.3	0.3	0.0
AK1	38.6	39.3	0.7	35.2	35.9	0.7	84.6	85.3	0.7	73.0	73.0	0.0	0.1	0.1	0.0
AK2	38.4	39.4	1.0	35.2	36.1	0.9	84.6	85.5	0.9	74.2	74.2	0.0	0.1	0.2	0.1
AK3	38.7	39.9	1.2	35.6	36.6	1.0	85.0	86.0	1.0	75.3	75.3	0.0	0.1	0.2	0.1
AK4	40.0	41.2	1.2	36.7	37.7	1.0	86.1	87.1	1.0	76.3	76.3	0.0	0.2	0.3	0.1
AK5	41.5	42.5	1.0	38.0	38.9	0.9	87.4	88.3	0.9	77.2	77.2	0.0	0.3	0.3	0.0
AK6	42.7	43.6	0.9	39.2	40.0	0.8	88.6	89.4	0.8	77.6	77.6	0.0	0.4	0.5	0.1
AK7	43.6	44.5	0.9	40.2	41.0	0.8	89.6	90.4	0.8	77.7	77.7	0.0	0.7	0.8	0.1
AK8	44.6	45.5	0.9	41.8	42.6	0.8	91.1	91.9	0.8	78.4	78.4	0.0	0.7	1.0	0.3
AK9	47.4	48.1	0.7	44.8	45.6	0.8	94.2	95.0	0.8	84.6	84.6	0.0	2.3	2.6	0.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AK10	50.5	51.2	0.7	47.8	48.6	0.8	97.2	97.9	0.7	86.3	86.3	0.0	4.7	5.2	0.5
AK11	52.4	52.9	0.5	49.5	50.1	0.6	98.9	99.4	0.5	86.4	86.4	0.0	5.9	6.4	0.5
AK12	52.8	53.3	0.5	49.7	50.2	0.5	99.1	99.6	0.5	86.5	86.5	0.0	5.9	6.4	0.5
AK13	49.3	50.1	0.8	46.8	47.6	0.8	96.2	96.9	0.7	86.0	86.0	0.0	2.3	2.8	0.5
AK14	46.1	47.0	0.9	43.5	44.4	0.9	92.8	93.8	1.0	85.4	85.4	0.0	1.5	1.9	0.4
AK15	44.2	45.0	0.8	41.5	42.3	0.8	90.8	91.7	0.9	85.4	85.4	0.0	1.1	1.3	0.2
AK16	42.9	43.6	0.7	40.1	40.9	0.8	89.5	90.3	0.8	80.0	80.0	0.0	0.7	0.8	0.1
AK17	42.2	43.0	0.8	39.5	40.3	0.8	88.9	89.7	0.8	77.4	77.4	0.0	0.6	0.7	0.1
AK18	41.6	42.4	0.8	38.9	39.6	0.7	88.2	89.0	0.8	76.9	76.9	0.0	0.5	0.6	0.1
AK19	40.8	41.5	0.7	37.8	38.6	0.8	87.2	88.0	0.8	75.3	75.3	0.0	0.3	0.4	0.1
AK20	40.2	40.9	0.7	37.0	37.7	0.7	86.4	87.1	0.7	74.3	74.3	0.0	0.2	0.3	0.1
AK21	40.1	40.6	0.5	36.8	37.4	0.6	86.2	86.7	0.5	74.9	74.9	0.0	0.3	0.3	0.0
AK22	39.9	40.4	0.5	36.8	37.2	0.4	86.2	86.6	0.4	76.4	76.4	0.0	0.3	0.3	0.0
AK23	39.8	40.2	0.4	36.7	37.0	0.3	86.1	86.4	0.3	76.4	76.4	0.0	0.3	0.3	0.0
AL1	37.8	38.5	0.7	34.5	35.2	0.7	83.9	84.5	0.6	73.2	73.2	0.0	0.1	0.1	0.0
AL2	38.8	39.4	0.6	35.2	35.9	0.7	84.6	85.3	0.7	73.5	73.5	0.0	0.1	0.1	0.0
AL3	39.0	39.8	0.8	35.5	36.2	0.7	84.9	85.6	0.7	73.7	73.7	0.0	0.1	0.2	0.1
AL4	39.2	40.1	0.9	35.9	36.7	0.8	85.3	86.1	0.8	73.2	73.2	0.0	0.1	0.2	0.1
AL5	40.0	40.8	0.8	36.8	37.5	0.7	86.1	86.9	0.8	73.2	73.2	0.0	0.2	0.2	0.0
AL6	41.2	41.9	0.7	38.1	38.7	0.6	87.5	88.1	0.6	74.2	74.2	0.0	0.3	0.3	0.0
AL7	42.9	43.5	0.6	39.9	40.5	0.6	89.3	89.9	0.6	75.5	75.5	0.0	0.5	0.5	0.0
AL8	45.1	45.6	0.5	42.1	42.7	0.6	91.5	92.1	0.6	78.5	78.5	0.0	1.7	1.8	0.1
AL9	46.4	47.2	0.8	43.9	44.7	0.8	93.2	94.1	0.9	84.2	84.2	0.0	1.7	1.9	0.2
AL10	49.1	49.9	0.8	46.6	47.4	0.8	95.9	96.8	0.9	85.5	85.5	0.0	2.7	3.2	0.5
AL11	51.4	51.9	0.5	48.5	49.1	0.6	97.9	98.5	0.6	85.6	85.6	0.0	4.9	5.3	0.4
AL12	51.7	52.2	0.5	48.7	49.1	0.4	98.0	98.5	0.5	85.6	85.6	0.0	4.7	5.1	0.4
AL13	48.7	49.4	0.7	45.9	46.7	0.8	95.3	96.1	0.8	85.3	85.3	0.0	2.2	2.6	0.4
AL14	45.4	46.3	0.9	42.8	43.7	0.9	92.2	93.1	0.9	84.6	84.6	0.0	1.3	1.6	0.3
AL15	42.8	43.8	1.0	40.1	41.1	1.0	89.5	90.5	1.0	85.1	85.1	0.0	0.5	0.8	0.3
AL16	41.5	42.4	0.9	38.8	39.7	0.9	88.2	89.1	0.9	80.7	80.7	0.0	0.4	0.5	0.1
AL17	40.9	41.8	0.9	38.1	39.0	0.9	87.5	88.4	0.9	75.3	75.3	0.0	0.3	0.4	0.1

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AL18	40.4	41.3	0.9	37.6	38.5	0.9	87.0	87.9	0.9	76.3	76.3	0.0	0.3	0.4	0.1
AL19	39.9	40.7	0.8	36.9	37.8	0.9	86.3	87.1	0.8	75.1	75.1	0.0	0.2	0.3	0.1
AL20	39.1	39.8	0.7	36.0	36.8	0.8	85.3	86.1	0.8	72.5	72.5	0.0	0.2	0.3	0.1
AL21	38.7	39.3	0.6	35.6	36.3	0.7	85.0	85.6	0.6	73.1	73.1	0.0	0.2	0.3	0.1
AL22	38.9	39.4	0.5	35.9	36.3	0.4	85.3	85.7	0.4	75.3	75.3	0.0	0.2	0.3	0.1
AL23	39.0	39.3	0.3	36.0	36.3	0.3	85.4	85.7	0.3	76.0	76.0	0.0	0.2	0.3	0.1
AM1	36.4	37.1	0.7	33.3	34.0	0.7	82.7	83.3	0.6	70.3	70.3	0.0	0.1	0.1	0.0
AM2	37.4	38.1	0.7	34.2	34.8	0.6	83.5	84.1	0.6	71.1	71.1	0.0	0.1	0.1	0.0
AM3	38.9	39.4	0.5	35.4	35.9	0.5	84.8	85.3	0.5	71.9	71.9	0.0	0.1	0.1	0.0
AM4	40.2	40.7	0.5	36.7	37.1	0.4	86.0	86.5	0.5	72.8	72.8	0.0	0.1	0.1	0.0
AM5	41.4	41.8	0.4	37.8	38.2	0.4	87.2	87.6	0.4	73.7	73.7	0.0	0.3	0.3	0.0
AM6	42.4	42.8	0.4	39.0	39.4	0.4	88.4	88.8	0.4	74.7	74.7	0.0	0.6	0.6	0.0
AM7	43.1	43.6	0.5	40.0	40.5	0.5	89.4	89.9	0.5	75.7	75.7	0.0	1.0	1.0	0.0
AM8	43.4	44.1	0.7	40.6	41.4	0.8	90.0	90.8	0.8	78.6	78.6	0.0	0.6	0.8	0.2
AM9	44.8	45.8	1.0	42.5	43.5	1.0	91.8	92.9	1.1	83.7	83.7	0.0	0.8	1.1	0.3
AM10	48.1	48.8	0.7	45.6	46.4	0.8	94.9	95.7	0.8	84.7	84.7	0.0	2.3	2.6	0.3
AM11	50.4	50.9	0.5	47.5	48.1	0.6	96.9	97.4	0.5	84.8	84.8	0.0	4.1	4.4	0.3
AM12	50.8	51.3	0.5	47.7	48.2	0.5	97.1	97.6	0.5	84.8	84.8	0.0	4.3	4.6	0.3
AM13	47.7	48.5	0.8	44.9	45.7	0.8	94.3	95.1	0.8	84.6	84.6	0.0	1.6	1.9	0.3
AM14	45.2	46.0	0.8	42.6	43.4	0.8	92.0	92.8	0.8	84.1	84.1	0.0	1.3	1.5	0.2
AM15	42.6	43.5	0.9	39.8	40.7	0.9	89.1	90.1	1.0	84.5	84.5	0.0	0.7	0.9	0.2
AM16	41.2	42.0	0.8	38.2	39.1	0.9	87.6	88.5	0.9	81.3	81.3	0.0	0.4	0.5	0.1
AM17	40.3	41.1	0.8	37.2	38.1	0.9	86.6	87.5	0.9	75.9	75.9	0.0	0.3	0.4	0.1
AM18	39.7	40.6	0.9	36.7	37.6	0.9	86.1	87.0	0.9	74.7	74.7	0.0	0.2	0.3	0.1
AM19	38.9	39.9	1.0	36.0	37.0	1.0	85.4	86.4	1.0	74.9	74.9	0.0	0.2	0.3	0.1
AM20	38.1	39.0	0.9	35.2	36.1	0.9	84.5	85.5	1.0	73.1	73.1	0.0	0.2	0.3	0.1
AM21	37.7	38.5	0.8	34.8	35.5	0.7	84.2	84.9	0.7	71.5	71.5	0.0	0.2	0.2	0.0
AM22	38.0	38.5	0.5	35.1	35.5	0.4	84.4	84.9	0.5	74.1	74.1	0.0	0.2	0.2	0.0
AM23	38.0	38.4	0.4	35.1	35.4	0.3	84.5	84.8	0.3	75.2	75.2	0.0	0.1	0.2	0.1
AN1	36.0	36.6	0.6	32.9	33.5	0.6	82.2	82.8	0.6	68.6	68.6	0.0	0.1	0.1	0.0
AN2	36.3	37.0	0.7	33.3	33.9	0.6	82.6	83.3	0.7	69.4	69.4	0.0	0.1	0.1	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AN3	37.0	37.7	0.7	34.0	34.6	0.6	83.4	84.0	0.6	70.1	70.1	0.0	0.1	0.1	0.0
AN4	38.0	38.7	0.7	35.0	35.6	0.6	84.3	85.0	0.7	71.5	71.5	0.0	0.1	0.1	0.0
AN5	39.1	39.7	0.6	36.1	36.7	0.6	85.5	86.1	0.6	73.8	73.8	0.0	0.1	0.2	0.1
AN6	39.8	40.6	0.8	37.1	37.7	0.6	86.5	87.1	0.6	75.5	75.5	0.0	0.2	0.3	0.1
AN7	40.4	41.3	0.9	37.7	38.5	0.8	87.1	87.9	0.8	76.2	76.2	0.0	0.2	0.3	0.1
AN8	41.6	42.6	1.0	39.1	40.1	1.0	88.4	89.4	1.0	78.6	78.6	0.0	0.4	0.6	0.2
AN9	44.2	45.1	0.9	41.8	42.8	1.0	91.1	92.2	1.1	83.1	83.1	0.0	0.9	1.2	0.3
AN10	47.2	47.9	0.7	44.7	45.5	0.8	94.1	94.8	0.7	83.8	83.8	0.0	1.5	1.8	0.3
AN11	49.2	49.7	0.5	46.4	46.9	0.5	95.7	96.3	0.6	83.9	83.9	0.0	2.5	2.8	0.3
AN12	49.9	50.4	0.5	46.8	47.3	0.5	96.2	96.6	0.4	83.9	83.9	0.0	3.8	4.1	0.3
AN13	47.1	47.8	0.7	44.1	44.9	0.8	93.5	94.3	0.8	83.8	83.8	0.0	1.1	1.4	0.3
AN14	44.8	45.5	0.7	42.2	42.9	0.7	91.6	92.3	0.7	83.5	83.5	0.0	1.1	1.3	0.2
AN15	41.8	42.7	0.9	39.0	39.9	0.9	88.4	89.3	0.9	83.7	83.7	0.0	0.4	0.6	0.2
AN16	40.0	40.9	0.9	37.2	38.1	0.9	86.6	87.5	0.9	81.9	81.9	0.0	0.3	0.3	0.0
AN17	38.9	39.8	0.9	36.1	37.0	0.9	85.4	86.3	0.9	76.6	76.6	0.0	0.2	0.3	0.1
AN18	38.3	39.3	1.0	35.5	36.5	1.0	84.9	85.8	0.9	74.0	74.0	0.0	0.2	0.3	0.1
AN19	38.0	39.1	1.1	35.2	36.2	1.0	84.6	85.6	1.0	73.8	73.8	0.0	0.2	0.3	0.1
AN20	37.8	38.7	0.9	34.9	35.9	1.0	84.3	85.3	1.0	73.4	73.4	0.0	0.2	0.3	0.1
AN21	37.6	38.4	0.8	34.7	35.5	0.8	84.1	84.8	0.7	71.7	71.7	0.0	0.2	0.2	0.0
AN22	37.5	38.1	0.6	34.5	35.1	0.6	83.9	84.4	0.5	72.5	72.5	0.0	0.1	0.2	0.1
AN23	37.0	37.6	0.6	34.3	34.7	0.4	83.6	84.0	0.4	74.3	74.3	0.0	0.1	0.1	0.0
AO1	36.7	37.3	0.6	33.3	33.8	0.5	82.7	83.1	0.4	71.0	71.0	0.0	0.1	0.1	0.0
AO2	36.5	37.3	0.8	33.3	33.9	0.6	82.7	83.3	0.6	71.5	71.5	0.0	0.1	0.1	0.0
AO3	36.3	37.2	0.9	33.3	34.1	0.8	82.7	83.4	0.7	72.3	72.3	0.0	0.1	0.1	0.0
AO4	36.7	37.7	1.0	34.0	34.8	0.8	83.4	84.1	0.7	73.7	73.7	0.0	0.1	0.1	0.0
AO5	37.5	38.4	0.9	34.9	35.6	0.7	84.3	85.0	0.7	74.3	74.3	0.0	0.1	0.2	0.1
AO6	38.2	39.2	1.0	35.5	36.3	0.8	84.9	85.7	0.8	74.6	74.6	0.0	0.1	0.2	0.1
AO7	39.5	40.4	0.9	36.6	37.5	0.9	86.0	86.9	0.9	75.3	75.3	0.0	0.2	0.3	0.1
AO8	41.4	42.2	0.8	38.7	39.6	0.9	88.1	88.9	0.8	78.5	78.5	0.0	0.5	0.6	0.1
AO9	43.6	44.4	0.8	41.3	42.2	0.9	90.6	91.6	1.0	82.5	82.5	0.0	0.7	0.9	0.2
AO10	46.3	47.0	0.7	43.8	44.6	0.8	93.2	94.0	0.8	83.0	83.0	0.0	1.1	1.4	0.3

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AO11	48.0	48.6	0.6	45.2	45.8	0.6	94.6	95.2	0.6	83.0	83.0	0.0	1.8	2.1	0.3
AO12	48.6	49.1	0.5	45.5	46.0	0.5	94.9	95.4	0.5	83.1	83.1	0.0	2.2	2.4	0.2
AO13	46.6	47.3	0.7	43.6	44.3	0.7	92.9	93.7	0.8	83.1	83.1	0.0	1.3	1.6	0.3
AO14	44.4	45.1	0.7	41.7	42.4	0.7	91.1	91.8	0.7	82.9	82.9	0.0	0.9	1.1	0.2
AO15	41.7	42.5	0.8	39.0	39.7	0.7	88.4	89.1	0.7	82.7	82.7	0.0	0.4	0.5	0.1
AO16	39.5	40.3	0.8	36.7	37.5	0.8	86.1	86.9	0.8	81.8	81.8	0.0	0.2	0.2	0.0
AO17	38.2	39.0	0.8	35.4	36.1	0.7	84.7	85.5	0.8	77.2	77.2	0.0	0.1	0.2	0.1
AO18	37.6	38.4	0.8	34.7	35.5	0.8	84.0	84.9	0.9	73.3	73.3	0.0	0.1	0.2	0.1
AO19	37.6	38.4	0.8	34.6	35.5	0.9	84.0	84.8	0.8	72.9	72.9	0.0	0.1	0.2	0.1
AO20	37.7	38.5	0.8	34.7	35.5	0.8	84.0	84.9	0.9	73.0	73.0	0.0	0.2	0.2	0.0
AO21	37.4	38.2	0.8	34.4	35.2	0.8	83.7	84.5	0.8	72.1	72.1	0.0	0.2	0.2	0.0
AO22	36.7	37.5	0.8	33.8	34.5	0.7	83.2	83.9	0.7	71.8	71.8	0.0	0.2	0.2	0.0
AO23	36.1	36.7	0.6	33.4	33.9	0.5	82.8	83.3	0.5	73.2	73.2	0.0	0.1	0.1	0.0
AP1	36.2	36.8	0.6	32.8	33.3	0.5	82.1	82.6	0.5	71.2	71.2	0.0	0.1	0.1	0.0
AP2	37.0	37.6	0.6	33.7	34.1	0.4	83.1	83.5	0.4	71.9	71.9	0.0	0.1	0.1	0.0
AP3	37.1	37.7	0.6	34.0	34.4	0.4	83.3	83.8	0.5	72.6	72.6	0.0	0.1	0.1	0.0
AP4	37.2	37.9	0.7	34.3	34.8	0.5	83.7	84.2	0.5	72.4	72.4	0.0	0.1	0.1	0.0
AP5	37.6	38.3	0.7	34.6	35.1	0.5	84.0	84.5	0.5	72.3	72.3	0.0	0.1	0.1	0.0
AP6	38.4	39.0	0.6	35.3	35.9	0.6	84.7	85.3	0.6	72.1	72.1	0.0	0.1	0.1	0.0
AP7	39.6	40.2	0.6	36.7	37.3	0.6	86.1	86.7	0.6	73.7	73.7	0.0	0.1	0.2	0.1
AP8	41.0	41.7	0.7	38.5	39.2	0.7	87.8	88.6	0.8	78.4	78.4	0.0	0.4	0.5	0.1
AP9	42.8	43.6	0.8	40.5	41.4	0.9	89.9	90.8	0.9	81.8	81.8	0.0	0.5	0.7	0.2
AP10	45.3	46.0	0.7	42.8	43.5	0.7	92.1	92.9	0.8	82.1	82.1	0.0	0.7	0.9	0.2
AP11	47.1	47.6	0.5	44.2	44.8	0.6	93.6	94.2	0.6	82.2	82.2	0.0	1.3	1.6	0.3
AP12	47.2	47.7	0.5	44.2	44.7	0.5	93.5	94.1	0.6	82.3	82.3	0.0	1.3	1.6	0.3
AP13	45.6	46.3	0.7	42.6	43.3	0.7	91.9	92.7	0.8	82.3	82.3	0.0	0.7	0.9	0.2
AP14	44.0	44.7	0.7	41.2	41.8	0.6	90.6	91.2	0.6	82.2	82.2	0.0	0.8	0.9	0.1
AP15	42.0	42.6	0.6	39.2	39.8	0.6	88.6	89.2	0.6	81.7	81.7	0.0	0.3	0.5	0.2
AP16	39.8	40.4	0.6	36.8	37.4	0.6	86.1	86.8	0.7	81.5	81.5	0.0	0.2	0.2	0.0
AP17	38.3	38.9	0.6	35.2	35.9	0.7	84.6	85.2	0.6	77.7	77.7	0.0	0.1	0.1	0.0
AP18	37.4	38.1	0.7	34.3	34.9	0.6	83.6	84.3	0.7	73.1	73.1	0.0	0.1	0.1	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AP19	37.1	37.8	0.7	33.9	34.6	0.7	83.3	84.0	0.7	72.6	72.6	0.0	0.1	0.1	0.0
AP20	36.8	37.6	0.8	33.7	34.5	0.8	83.1	83.9	0.8	71.8	71.8	0.0	0.1	0.1	0.0
AP21	36.2	37.1	0.9	33.3	34.1	0.8	82.6	83.5	0.9	72.0	72.0	0.0	0.1	0.2	0.1
AP22	35.5	36.4	0.9	32.7	33.5	0.8	82.1	82.9	0.8	70.6	70.6	0.0	0.1	0.1	0.0
AP23	35.1	35.8	0.7	32.5	33.1	0.6	81.9	82.5	0.6	71.9	71.9	0.0	0.1	0.1	0.0
AQ1	34.7	35.3	0.6	31.6	32.1	0.5	81.0	81.4	0.4	69.4	69.4	0.0	0.0	0.1	0.1
AQ2	36.4	36.8	0.4	33.3	33.6	0.3	82.7	83.0	0.3	69.3	69.3	0.0	0.0	0.1	0.1
AQ3	37.0	37.4	0.4	34.0	34.3	0.3	83.4	83.6	0.2	69.5	69.5	0.0	0.0	0.1	0.1
AQ4	37.0	37.5	0.5	34.0	34.3	0.3	83.4	83.7	0.3	68.7	68.7	0.0	0.0	0.1	0.1
AQ5	37.4	37.9	0.5	34.4	34.8	0.4	83.8	84.1	0.3	69.4	69.4	0.0	0.0	0.1	0.1
AQ6	38.0	38.5	0.5	35.1	35.6	0.5	84.5	84.9	0.4	70.2	70.2	0.0	0.1	0.1	0.0
AQ7	38.7	39.3	0.6	36.1	36.7	0.6	85.5	86.1	0.6	73.8	73.8	0.0	0.1	0.2	0.1
AQ8	39.8	40.7	0.9	37.5	38.4	0.9	86.9	87.8	0.9	78.2	78.2	0.0	0.3	0.4	0.1
AQ9	41.9	42.8	0.9	39.7	40.7	1.0	89.1	90.1	1.0	80.9	80.9	0.0	0.4	0.6	0.2
AQ10	44.6	45.3	0.7	42.1	42.9	0.8	91.5	92.3	0.8	81.1	81.1	0.0	0.6	0.8	0.2
AQ11	46.2	46.7	0.5	43.3	43.9	0.6	92.7	93.3	0.6	81.2	81.2	0.0	0.9	1.1	0.2
AQ12	45.9	46.5	0.6	42.9	43.5	0.6	92.2	92.9	0.7	81.2	81.2	0.0	0.8	1.1	0.3
AQ13	44.7	45.4	0.7	41.6	42.4	0.8	91.0	91.8	0.8	81.2	81.2	0.0	0.6	0.8	0.2
AQ14	43.1	43.8	0.7	40.2	41.0	0.8	89.6	90.3	0.7	81.2	81.2	0.0	0.5	0.6	0.1
AQ15	41.8	42.4	0.6	39.2	39.7	0.5	88.6	89.1	0.5	80.4	80.4	0.0	0.5	0.5	0.0
AQ16	39.6	40.2	0.6	36.7	37.3	0.6	86.1	86.7	0.6	80.9	80.9	0.0	0.2	0.2	0.0
AQ17	37.9	38.5	0.6	34.8	35.5	0.7	84.2	84.8	0.6	78.1	78.1	0.0	0.1	0.1	0.0
AQ18	36.4	37.1	0.7	33.3	34.0	0.7	82.7	83.4	0.7	73.7	73.7	0.0	0.1	0.1	0.0
AQ19	35.5	36.3	0.8	32.4	33.2	0.8	81.8	82.6	0.8	72.2	72.2	0.0	0.1	0.1	0.0
AQ20	35.0	35.9	0.9	32.1	33.0	0.9	81.4	82.3	0.9	71.0	71.0	0.0	0.1	0.1	0.0
AQ21	34.7	35.7	1.0	31.9	32.9	1.0	81.3	82.2	0.9	71.2	71.2	0.0	0.1	0.1	0.0
AQ22	34.5	35.4	0.9	31.8	32.6	0.8	81.1	82.0	0.9	70.8	70.8	0.0	0.1	0.1	0.0
AQ23	34.3	35.1	0.8	31.7	32.3	0.6	81.0	81.7	0.7	70.4	70.4	0.0	0.1	0.1	0.0
AR1	33.8	34.3	0.5	31.1	31.4	0.3	80.5	80.7	0.2	66.0	66.0	0.0	0.0	0.0	0.0
AR2	35.3	35.7	0.4	32.6	32.8	0.2	82.0	82.1	0.1	67.7	67.7	0.0	0.0	0.0	0.0
AR3	36.7	37.0	0.3	33.7	33.8	0.1	83.1	83.2	0.1	68.3	68.3	0.0	0.0	0.0	0.0

Table I-6, *Continued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AR4	37.3	37.6	0.3	34.2	34.4	0.2	83.6	83.8	0.2	68.9	68.9	0.0	0.0	0.0	0.0
AR5	37.5	37.8	0.3	34.4	34.7	0.3	83.8	84.1	0.3	69.5	69.5	0.0	0.0	0.1	0.1
AR6	37.6	38.1	0.5	34.7	35.2	0.5	84.1	84.6	0.5	70.1	70.1	0.0	0.1	0.1	0.0
AR7	38.3	39.0	0.7	35.7	36.4	0.7	85.0	85.7	0.7	73.8	73.8	0.0	0.1	0.2	0.1
AR8	39.8	40.6	0.8	37.4	38.3	0.9	86.8	87.6	0.8	78.0	78.0	0.0	0.3	0.4	0.1
AR9	41.9	42.7	0.8	39.6	40.5	0.9	88.9	89.9	1.0	80.1	80.1	0.0	0.4	0.6	0.2
AR10	43.9	44.6	0.7	41.5	42.2	0.7	90.8	91.6	0.8	80.1	80.1	0.0	0.5	0.8	0.3
AR11	45.3	45.9	0.6	42.5	43.1	0.6	91.8	92.5	0.7	80.2	80.2	0.0	0.7	0.9	0.2
AR12	45.0	45.6	0.6	41.9	42.6	0.7	91.3	92.0	0.7	80.3	80.3	0.0	0.6	0.9	0.3
AR13	43.7	44.5	0.8	40.7	41.5	0.8	90.0	90.9	0.9	80.4	80.4	0.0	0.5	0.7	0.2
AR14	42.6	43.3	0.7	39.7	40.4	0.7	89.0	89.7	0.7	80.3	80.3	0.0	0.4	0.5	0.1
AR15	41.4	41.9	0.5	38.8	39.3	0.5	88.1	88.6	0.5	79.2	79.2	0.0	0.4	0.4	0.0
AR16	39.7	40.3	0.6	37.0	37.5	0.5	86.4	86.8	0.4	80.1	80.1	0.0	0.2	0.2	0.0
AR17	37.7	38.3	0.6	34.9	35.5	0.6	84.3	84.8	0.5	78.4	78.4	0.0	0.1	0.1	0.0
AR18	35.8	36.5	0.7	33.0	33.6	0.6	82.3	83.0	0.7	74.2	74.2	0.0	0.1	0.1	0.0
AR19	34.4	35.2	0.8	31.5	32.3	0.8	80.9	81.7	0.8	71.1	71.1	0.0	0.0	0.1	0.1
AR20	33.7	34.7	1.0	30.9	31.8	0.9	80.3	81.2	0.9	69.8	69.8	0.0	0.1	0.1	0.0
AR21	33.7	34.7	1.0	30.9	31.9	1.0	80.3	81.3	1.0	69.8	69.8	0.0	0.1	0.1	0.0
AR22	33.8	34.7	0.9	31.0	31.9	0.9	80.4	81.3	0.9	70.3	70.3	0.0	0.1	0.1	0.0
AR23	33.8	34.6	0.8	31.1	31.8	0.7	80.5	81.2	0.7	69.6	69.6	0.0	0.1	0.1	0.0
AS1	33.8	34.2	0.4	31.1	31.3	0.2	80.5	80.6	0.1	67.2	67.2	0.0	0.0	0.0	0.0
AS2	34.8	35.2	0.4	31.9	32.1	0.2	81.3	81.4	0.1	68.1	68.1	0.0	0.0	0.0	0.0
AS3	35.7	36.1	0.4	32.7	32.8	0.1	82.0	82.2	0.2	69.0	69.0	0.0	0.0	0.0	0.0
AS4	36.6	36.9	0.3	33.4	33.7	0.3	82.8	83.0	0.2	69.9	69.9	0.0	0.0	0.0	0.0
AS5	37.2	37.6	0.4	34.1	34.4	0.3	83.4	83.8	0.4	70.7	70.7	0.0	0.0	0.1	0.1
AS6	37.8	38.3	0.5	34.8	35.2	0.4	84.2	84.6	0.4	71.5	71.5	0.0	0.1	0.1	0.0
AS7	38.7	39.3	0.6	35.9	36.5	0.6	85.3	85.9	0.6	73.8	73.8	0.0	0.1	0.2	0.1
AS8	39.9	40.6	0.7	37.4	38.2	0.8	86.8	87.5	0.7	77.8	77.8	0.0	0.2	0.4	0.2
AS9	41.3	42.1	0.8	39.0	39.9	0.9	88.4	89.3	0.9	79.4	79.4	0.0	0.4	0.5	0.1
AS10	42.9	43.6	0.7	40.5	41.3	0.8	89.9	90.7	0.8	79.3	79.3	0.0	0.5	0.7	0.2
AS11	44.3	44.9	0.6	41.5	42.1	0.6	90.8	91.5	0.7	79.4	79.4	0.0	0.6	0.8	0.2

Table I-6, C*ontinued*
REGULARLY SPACED POINT RESULTS – FUTURE (2012) BASELINE AND FUTURE (2012) NCP
Port Columbus International Airport

GRID ID	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change	Future (2012) Baseline	Future (2012) NCP	Change
	DNL	DNL	DNL	LEQ	LEQ	LEQ	SEL	SEL	SEL	LMAX	LMAX	LMAX	TA65	TA65	TA65
AS12	44.3	44.9	0.6	41.2	41.9	0.7	90.5	91.2	0.7	79.5	79.5	0.0	0.6	0.8	0.2
AS13	42.8	43.6	0.8	39.7	40.6	0.9	89.1	89.9	0.8	79.5	79.5	0.0	0.4	0.6	0.2
AS14	41.9	42.6	0.7	38.8	39.6	0.8	88.2	88.9	0.7	79.5	79.5	0.0	0.3	0.5	0.2
AS15	41.3	41.8	0.5	38.5	39.0	0.5	87.9	88.3	0.4	78.6	78.6	0.0	0.2	0.3	0.1
AS16	40.0	40.4	0.4	37.2	37.6	0.4	86.6	86.9	0.3	79.4	79.4	0.0	0.1	0.2	0.1
AS17	38.7	39.1	0.4	35.8	36.1	0.3	85.2	85.5	0.3	78.3	78.3	0.0	0.1	0.1	0.0
AS18	36.8	37.2	0.4	33.9	34.3	0.4	83.3	83.6	0.3	74.7	74.7	0.0	0.1	0.1	0.0
AS19	34.9	35.5	0.6	32.0	32.5	0.5	81.4	81.9	0.5	71.9	71.9	0.0	0.0	0.1	0.1
AS20	33.8	34.5	0.7	30.9	31.6	0.7	80.3	80.9	0.6	71.5	71.5	0.0	0.0	0.1	0.1
AS21	33.4	34.3	0.9	30.6	31.3	0.7	79.9	80.7	0.8	70.8	70.8	0.0	0.0	0.1	0.1
AS22	33.5	34.3	0.8	30.6	31.4	0.8	80.0	80.8	0.8	69.9	69.9	0.0	0.1	0.1	0.0
AS23	33.4	34.2	0.8	30.7	31.3	0.6	80.0	80.7	0.7	69.3	69.3	0.0	0.1	0.1	0.0

Source: Landrum & Brown, 2007.

APPENDIX J
FORECASTS

This appendix includes the forecast of aviation activity for Port Columbus International Airport and the forecast approval letter received on January 9, 2007 from the Federal Aviation Administration.

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

Detroit Airports District Office
Metro Airport Center
11677 South Wayne Road, Ste. 107
Romulus, MI 48174

January 9, 2007

Mr. Bernard F. Meleski, Director of Airport Planning
Columbus Regional Airport Authority
Port Columbus International Airport
4600 International Parkway
Columbus, OH 43219

Dear Mr. Meleski:

Port Columbus International Airport
Concurrence of Aviation Planning Forecasts

We have reviewed the forecasts submitted on September 8, 2006 by the Columbus Regional Airport Authority for the Port Columbus International Airport. These forecasts are an update to the March 4, 2005, *Aviation Activity Forecast* that were approved on March 8, 2005. Based on our review of the document, the FAA concurs with these updated forecasts for use in the development of the Airport's Part 150 Study.

The FAA looks forward to continuing to work with you and your staff. Should you have any questions in regards to this letter, please contact me at (734) 229-2958.

Sincerely,

Katherine S. Jones

Katherine S. Jones
Community Planner
Detroit Airports District Office

cc: Ms. Elaine Roberts, CRAA
Ms. Angela Newland, CRAA
Mr. Dave Wall, CRAA
Rob Adams, Landrum & Brown

COLUMBUS REGIONAL AIRPORT AUTHORITY
PORT COLUMBUS • RICKENBACKER • BOLTON

September 6, 2006

Ms. Katherine Jones
Federal Aviation Administration
Detroit Airports District Office, DET-600
11677 South Wayne Road, Suite 107
Romulus, MI 48174

RE: Aviation Activity Forecast
Port Columbus International Airport

Dear Katy:

Enclosed please find the final aviation activity forecast prepared by Landrum & Brown for the FAR Part 150 Noise Compatibility Program Update at Port Columbus International Airport.

Please review the enclosed report and provide me with your concurrence. If you have any question, please call me at (614) 239-4063. Thank you for your continued assistance on this important project.

Sincerely,

David Wall, A.A.E.
Capital Program Manager

Cc: Elaine Roberts, A.A.E.
Angela Newland, A.A.E.
Rob Adams, Landrum & Brown

Port Columbus International Airport
4600 International Gateway
Columbus, Ohio 43219
Phone: 614-239-4000
Fax: 614-239-4066

Rickenbacker International Airport
7161 Second Street
Columbus, Ohio 43217
Phone: 614-491-1401
Fax: 614-491-0662

Bolton Field Airport
2000 Norton Road
Columbus, Ohio 43228
Phone: 614-851-9900
Fax: 614-851-8959

Aviation Activity Forecast
Port Columbus International Airport

Prepared by
Landrum & Brown

August 2006

Aviation Activity Forecast

The purpose of this document is to update the Port Columbus International Airport (CMH or Airport) aviation activity forecast. This updated forecast represents projected unconstrained demand. Any potential future limitations in airspace, airfield, or terminal capacities are not taken into account. It is further assumed that future growth in traffic at the Airport will not be unduly constrained by lack of availability of aviation fuel or unusual jet fuel price hikes, limitations in the capacity of the air traffic control system, or the re-regulation of airlines.

Economic Base for Air Transportation Demand

Greater Columbus area demographic and economic factors provide the foundation for origin and destination air service demand at the Airport. The prime geographic region served by an airport is generally referred to as an "Air Trade Area." For purposes of this report, the Port Columbus International Airport Air Trade Area is the Columbus, Ohio Metropolitan Statistical Area (MSA) as defined by the U.S. Census Bureau.

Historical Enplaned Passengers

After experiencing virtually uninterrupted growth in passenger traffic during the 1990s, enplaned passengers peaked in 2000 at 3.46 million. Over the next four years, the record of traffic was less positive at CMH. Enplanements fell to a five-year low in 2004 (10 percent below 2000 levels). The combined effects of an economic recession, the September 11, 2001 terrorist attacks, the SARS outbreak, and the war in Iraq weighed heavily on enplanement volumes at CMH, as at many other U.S. airports, between 2001 and 2003. Moreover, the strategic decision by America West to discontinue its operation of a mini-connecting hub at CMH was also a major contributing factor to the decline in enplaned passengers, specifically in 2003 and 2004. In 2005, enplanement volumes retuned to a positive trend, increasing 6.9 percent over 2004.

For the 6 months ended June 2006, passenger traffic growth at CMH increased 0.7 percent over the same period in 2005. Airline schedules filed with the *Official Airline Guide* for 2006 indicate there will likely be 7-8 percent fewer available seats operated at CMH in 2006 versus 2005. Legacy carriers American, Delta, Northwest, US Airways, and the now defunct Independence Air are driving the decline. However, load factor increases are expected to marginally offset the projected decline in capacity with 3.37 million enplanements projected for 2006 versus 3.30 million in 2005.

O&D traffic is made up of Columbus area residents making air trips to other cities and visitors making trips to Columbus. Domestic O&D traffic at CMH has accounted for almost 90 percent of total enplanements, on average, at CMH between 1992 and 2005. As a result, domestic O&D traffic has generally mirrored overall enplanement trends. Notably, domestic O&D traffic began to recover at CMH in 2004, a year earlier than overall enplanements, which were depressed by the net effect of continued declines in connecting enplanements resulting from the discontinuation of the America West hub. Although relatively small, international O&D traffic has grown steadily with only a small setback in 2001. In 2005, 190,400 international O&D enplanements were reported at CMH accounting for almost 6 percent of total enplanements.

Historical trends in domestic O&D, international O&D, and connecting passengers are shown in **Table 1**.

Table 1
Historical Enplanements

Year	Total Enplanements	Outbound Domestic O&D	Outbound International O&D	Connections	Connecting Percentage
1992	2,182,876	1,981,450	80,500	120,926	5.5%
1993	2,568,762	2,118,660	93,560	356,542	13.9%
1994	2,812,678	2,270,380	96,420	445,878	15.9%
1995	2,872,607	2,470,820	97,710	304,077	10.6%
1996	3,197,851	2,813,380	108,960	275,511	8.6%
1997	3,339,115	2,915,380	125,110	298,625	8.9%
1998	3,243,239	2,914,890	131,260	197,089	6.1%
1999	3,328,449	3,047,140	147,310	133,999	4.0%
2000	3,462,920	3,123,060	155,790	184,070	5.3%
2001	3,336,027	2,985,560	178,189	172,278	5.2%
2002	3,348,456	2,871,170	185,941	291,345	8.7%
2003	3,156,520	2,722,220	182,528	251,772	8.0%
2004	3,112,870	2,786,280	199,982	126,608	4.1%
2005	3,306,753	2,982,770	209,396	114,587	3.5%
2006E	3,376,675	3,041,508	219,100	116,067	3.4%
Average Annual Growth Rate					
1992-2006	3.2%	3.1%	7.4%	-0.3%	

* Connecting enplanements are restated due to availability of more accurate Canadian Traffic data.
O&D adjusted accordingly.

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Air Service Issues and Primary Assumptions

Understanding the current and historical air service provided at the Airport is a key component of developing a forecast. In recent years, the contraction of the America West hub has been the most prominent air service issue at CMH. In 2005, America West operated 4 daily flight departures on average from CMH (2 daily flights to each of its hubs in Phoenix and Las Vegas). This is in stark contrast to the 49 daily flights it operated prior to disbanding its hub in 2003. Notably, the scope of service (number of destinations served) at CMH has not suffered materially. In 2006, all the destinations that America West served at the height of its hubbing operation are served by another airline.

Southwest seems to have benefited most from the decline in America West's operations at CMH. The airline increased its share of capacity (measured by available seats) to 21 percent in 2005, up from 11 percent in 2000.

It is evident that potential travelers from CMH continue to have a diverse set of air service offerings available to them. However, some further near term air service issues are worth considering. With the broader airline industry mired in debt and posting significant operating losses, many airlines are continuing to right size their operations in an effort to return to profitability. Legacy carriers are focusing on the less competitive international market while

reducing or holding flat domestic capacity.[1] The restriction of domestic supply coupled with persistently high fuel prices is resulting in higher fares charged to air travelers which could dampen demand for air travel.

Moreover, as part of the legacy carrier restructuring, domestic air service continues to be shifted to regional partners both nationally and at CMH. In 2005, regional carriers accounted for 38 percent of departing seats at CMH versus 21 percent in 2000.

Enplanement Forecast Methodology

Any effort to project future airline passengers begins with a forecast of domestic originating enplanements. The level of originating enplanements reflects the attractiveness of the Columbus region as a place to live, a place to visit, and as a place to work and conduct business. Domestic originating enplanements were forecast using an econometric (multi-linear regression) approach. Dozens of regression equations were constructed to test the correlation coefficients of different combinations of demographic and economic variables with the historical originating enplanements for the period 1990 through 2005.

The historical and forecast population, employment, earnings, and personal income data used in developing the enplaned passenger forecast was obtained from Woods & Poole Economics, Inc. Woods & Poole is an independent, non-partisan organization that carries out research in the public interest. The Woods & Poole data for the Columbus MSA is presented in **Table A-1** at the end of this document. The other principle economic variable tested was yield (average revenue per passenger mile). Yield reflects the cost of air travel to the traveling public. Yield is forecast to decline in real terms during the forecast period.

A four variable regression equation provided the "best fit." The independent variables were yield, per capita personal income, and two dummy variables. The two dummy variables were used to model the effects of economic recession/September 11th attacks and America West's discontinuation of its mini-hub. The regression produced a statistically significant adjusted R^2 value of .9524. The regression equation predicated that average annual growth for domestic originating enplanements would be 2.9 percent over the forecast horizon (2006-2023).

International originating enplanements grew at an average annual rate of 6.8 percent between 1992 through 2005. International enplanements represent a relatively small percentage of the total traffic at the Airport (5.8 percent in 2005). Again, an econometric (multi-linear regression) approach was used to forecast originating international enplanements. The best fit was found in a two variable model with US GDP and a dummy variable to model a recession, September 11th events and the SARS out break. The regression produced a statistically significant R^2 value of 0.9903 and an international O&D enplanement forecast with an average annual growth rate of 4.6 percent from 2006 to 2023.

Total originating enplanements, domestic plus international, are forecast to grow at an average annual rate of 2.9 percent between 2005 and 2023.

[1] Collectively the legacy carriers which include American, Continental, Delta, US Airways/America West, Northwest, and United are pulling down domestic capacity 7% system wide in 2006. Only Continental and United are projecting any domestic capacity growth. These findings include data for the legacy carriers' regional affiliates.

With the decision by America West to discontinue its mini-connecting hub at the Airport, connecting enplanements will be principally driven by passenger choice, rather than the intentional routing by a hubbing carrier. Connections are projected to range from 3.5 percent of total enplanements in 2005, to 3.8 percent in 2023.

Enplanement Forecast

Current aircraft operations statistics suggest the trend to replace "mainline" scheduled passenger jets with regional jets (RJs) continues unabated. In 2000, less than 18 percent of enplanements were on commuter carriers. By 2005, 36.5 percent were transported by commuters. The share of enplanements carried by commuter/regional aircraft is expected to increase, particularly in the near term. By 2023, regional airlines are forecast to account for 43 percent of total enplanements at CMH, having averaged growth of 3.9 percent over the forecast period. Although, air carrier activity is projected to account for a declining share of total enplanements at CMH (57.0 percent in 2023 versus 63.5 percent in 2005), air carrier enplanements are forecast to average growth of 2.3 percent over the forecast period.

Table 2 presents the updated enplaned passenger forecast. The forecasted split between air carrier and regional airline enplanements reflects the greater dependence on regional jet aircraft than in past years.

Table 2
Enplanement Forecast

	Year	O&D	Connecting	Total Enplanements	Air Carrier	Commuter	Percent Commuter
Actual	2000	3,278,850	184,070	3,462,920	2,838,521	624,399	18.0%
	2001	3,163,749	172,278	3,336,027	2,639,272	696,755	20.9%
	2002	3,057,111	291,345	3,348,456	2,446,580	901,876	26.9%
	2003	2,904,748	251,772	3,156,520	2,189,420	967,100	30.6%
	2004	2,986,262	126,608	3,112,870	2,121,901	990,969	31.8%
	2005	3,192,166	114,587	3,306,753	2,100,172	1,206,581	36.5%
Estimate	2006	3,260,608	116,067	3,376,675	1,959,072	1,417,603	42.0%
Forecast	2007	3,369,000	134,800	3,503,800	2,021,400	1,482,400	42.3%
	2008	3,501,400	140,100	3,641,500	2,089,000	1,552,500	42.6%
	2009	3,639,000	145,600	3,784,600	2,158,500	1,626,100	43.0%
	2010	3,782,100	151,300	3,933,400	2,230,300	1,703,100	43.3%
	2011	3,929,700	157,200	4,086,900	2,303,700	1,783,200	43.6%
	2012	4,052,800	162,100	4,214,900	2,361,600	1,853,300	44.0%
	2013	4,179,800	167,200	4,347,000	2,420,800	1,926,200	44.3%
	2014	4,310,900	172,400	4,483,300	2,481,300	2,002,000	44.7%
	2015	4,446,200	177,800	4,624,000	2,543,200	2,080,800	45.0%
	2016	4,584,700	183,400	4,768,100	2,634,600	2,133,500	44.7%
	2017	4,688,300	187,500	4,875,800	2,706,500	2,169,300	44.5%
	2018	4,794,300	191,800	4,986,100	2,780,300	2,205,800	44.2%
	2019	4,902,800	196,100	5,098,900	2,856,000	2,242,900	44.0%
	2020	5,013,900	200,600	5,214,500	2,933,700	2,280,800	43.7%
	2021	5,126,800	205,100	5,331,900	3,013,000	2,318,900	43.5%
	2022	5,239,100	209,600	5,448,700	3,092,400	2,356,300	43.2%
	2023	5,354,100	214,200	5,568,300	3,173,900	2,394,400	43.0%
	Average Annual Compound Growth Rates						
	2000-2005	-0.5%	-9.0%	-0.9%	-5.8%	14.1%	
	2005-2008	3.1%	6.9%	3.3%	-0.2%	8.8%	
	2008-2012	3.7%	3.7%	3.7%	3.1%	4.5%	
	2012-2018	2.8%	2.8%	2.8%	2.8%	2.9%	
	2018-2023	2.2%	2.2%	2.2%	2.7%	1.7%	
	2005-2023	2.9%	3.5%	2.9%	2.3%	3.9%	

Connecting enplanements are restated due to availability of more accurate Canadian Traffic data.
O&D adjusted accordingly.

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Table 3 compares the updated June 2006 enplanement forecast with the February 2005 forecast update and the FAA's 2005, Terminal Area Forecast (TAF). In the initial period through 2008, the average annual growth rate is lower in the current forecast update compared to the February 2005 forecast update. The slower near term growth rate is primarily explained by the higher actual base for 2005 (3.3 million enplanements) versus the projected value in the previous update (3.0 million enplanements). In absolute terms, a higher volume of enplanements is currently forecast in 2008 (3.6 million) than in the last forecast update (3.4 million). In the medium and long term (2008 to 2023), enplanements are projected to increase at 2.9 percent per annum, compared to 3.7 percent in the previous forecast. The slower long term growth rate does not reflect a significant change in the underlying socio-economic trends which drive demand for air travel to and from the Columbus area. However, it does reflect the assumption that fares are

likely to be higher, on average, over the forecast period, than previously anticipated due to what seems to be a persistent increase in fuel costs and supply discipline. Notably, the 2005 TAF projects a lower growth rate for both the short-term and long-term than the 2006 forecast.

The Columbus Regional Airport Authority (CRAA) Business Development staff regularly meets with airline route planners regarding growth opportunities. Airlines consistently remark on the quality market opportunities that Columbus provides. Port Columbus finished 2004 with near equal passengers as 2003 despite losing 25% of its scheduled passenger flights in 2003 with the America West de-hubbing decision. Passengers in 2003 were down only 7% compared to 2002. As of December 2004, CMH has 178 daily departures and 14,653 daily seats, compared to 188 daily departures and 14,522 daily seats before America West's downsizing, demonstrating nearly full recovery of lost flights and seats in a relatively short period of time. At that time, only one America West market, Los Angeles, did not have non-stop service. Delta began serving LAX from Port Columbus in March 2006. JetBlue Airways announced new service from Port Columbus beginning October 3, 2006 to New York Kennedy and Boston Logan. This recovery in service reflects well on the strength of the Columbus air passenger market.

An enplanement level of 5 million has been established as a threshold activity level for certain terminal improvements. The 5 million enplanement level is highlighted in **Table 3** by the dark box. This threshold is not expected to be reached until the 2018-2019 timeframe.

Table 3
Enplanement Forecast Comparison

Year	Actual	Feb 2005 Forecast	June 2006 Forecast	2005 TAF	Forecast vs. 2005 TAF Variance	
2000	3,462,920			3,447,628		
2001	3,336,027			3,412,384		
2002	3,348,456	3,348,456		3,204,770		
2003	3,156,520	3,156,520		3,149,103		
2004	3,112,870	3,112,870	3,112,870	2,996,209	3.9%	
2005	3,306,753	2,954,000	3,306,753	3,374,708	-2.0%	6.2%
2006		3,088,000	3,376,675	3,429,853	-1.6%	2.1%
2007		3,232,000	3,503,800	3,487,962	0.5%	3.8%
2008		3,377,000	3,641,500	3,549,192	2.6%	3.9%
2009		3,520,000	3,784,600	3,613,712	4.7%	3.9%
2010		3,665,000	3,933,400	3,681,699	6.8%	3.9%
2011		3,813,000	4,086,900	3,753,339	8.9%	3.9%
2012		3,966,000	4,214,900	3,828,828	10.1%	3.1%
2013		4,122,000	4,347,000	3,908,374	11.2%	3.1%
2014		4,278,000	4,483,300	3,992,193	12.3%	3.1%
2015		4,439,000	4,624,000	4,080,516	13.3%	3.1%
2016		4,602,000	4,768,100	4,173,584	14.2%	3.1%
2017		4,769,000	4,875,800	4,271,653	14.1%	2.3%
2018		4,936,000	4,986,100	4,374,991	14.0%	2.3%
2019		5,102,000	5,098,900	4,483,881	13.7%	2.3%
2020		5,272,000	5,214,500	4,598,623	13.4%	2.3%
2021		5,446,000	5,331,900	4,719,529	13.0%	2.3%
2022		5,622,000	5,448,700	4,846,931	12.4%	2.2%
2023		5,805,000	5,568,300	4,981,179	11.8%	2.2%
Average Annual Growth Rate						
2000-2005	-0.9%			-0.4%		
2005-2008		4.6%	3.3%	1.7%		
2008-2012		4.1%	3.7%	1.9%		
2012-2018		3.7%	2.8%	2.2%		
2018-2023		3.3%	2.2%			

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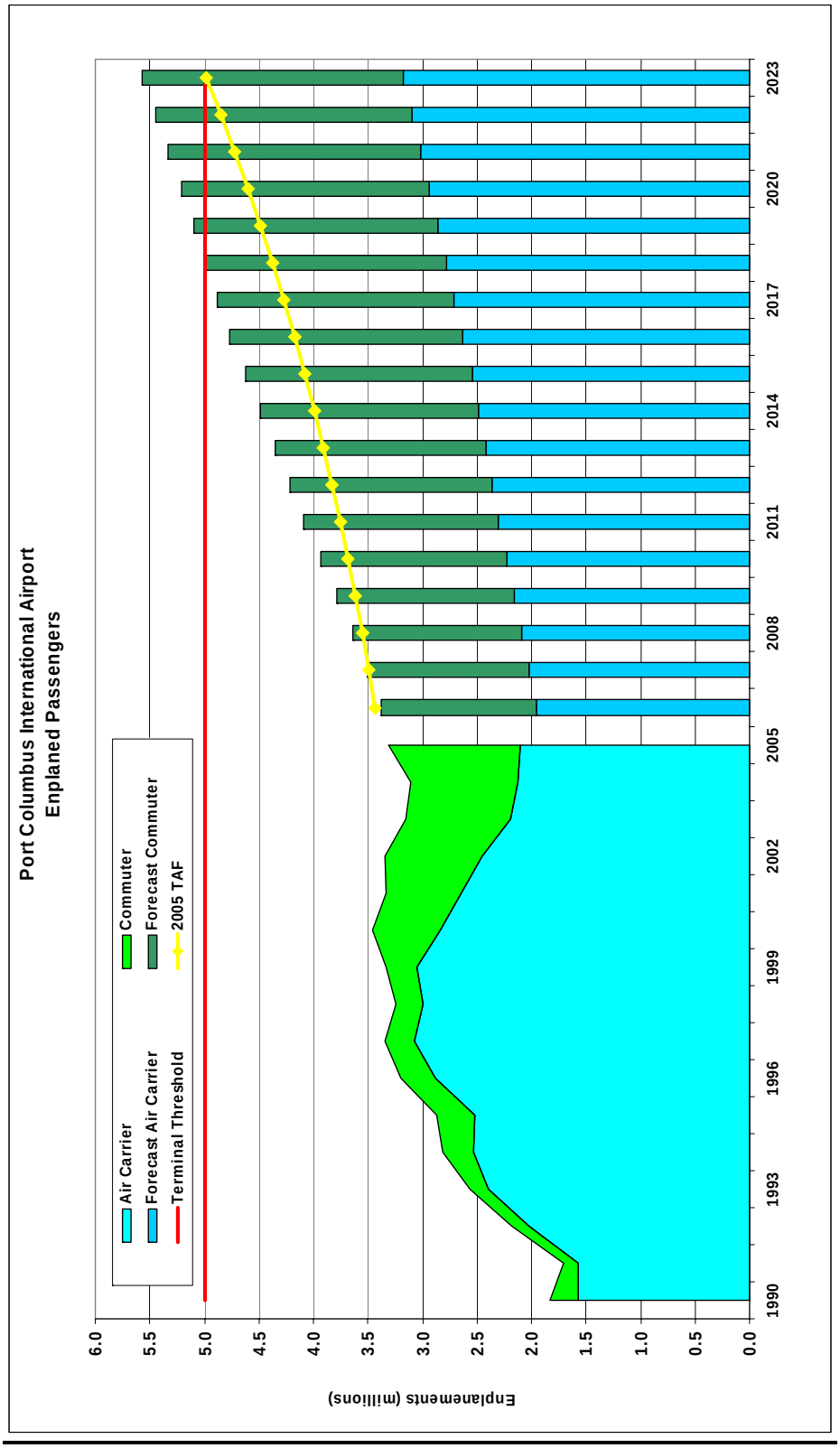
The enplanement forecast is presented graphically in **Exhibit 1**.

Exhibit 1


Port Columbus International Airport
Enplaned Passengers
Air Carrier
Forecast Air Carrier
Terminal Threshold
Commuter
Forecast Commuter
2005 TAF
Enplanements (millions)
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1990
1993
1996
1999
2002
2005
2008
2011
2014
2017
2020
2023

Aircraft Operations Forecast

The passenger aircraft operations are calculated based upon the forecast enplaned passengers and the projected enplanements per departure. The projected enplanements per departure are the product of the assumed average seats per departure (ASPD) and the average load factor. The ASPD represents the airport-wide average of the seating capacity (gauge) of the passenger aircraft serving the Airport. For CMH, the fleet mix is projected separately for the air carrier and commuter sectors. The airport-wide fleet mix is presented in **Table 9**.

The ASPD and load factor assumptions for each sector are represented in **Table 4**.

Table 4
Average Gauge (ASPD) and Load Factor Assumptions

		Air Carrier			Commuter		
	Year	ASPD	Load Factor	Enp/Dep	ASPD	Load Factor	Enp/Dep
Historical	2000	132.7	58.7%	77.9	43.3	50.6%	21.9
	2001	133.6	61.9%	82.7	45.6	44.3%	20.2
	2002	135.3	65.1%	88.1	45.2	53.8%	24.3
	2003	133.2	67.8%	90.3	45.8	63.2%	28.9
	2004	131.6	64.4%	84.8	46.5	62.4%	29.0
	2005	130.8	70.9%	92.7	48.5	65.9%	32.0
Forecast	2008	132.8	74.0%	98.2	50.4	73.0%	36.8
	2012	133.9	75.0%	100.4	51.6	74.0%	38.2
	2018	135.6	75.0%	101.7	53.4	74.0%	39.5
	2023	137.0	75.0%	102.8	55.0	74.0%	40.7

Note: ASPD = average seats per departure

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The non-passenger aircraft operations include cargo freighters, military aircraft, and general aviation (GA) activity. The all-cargo and military aircraft operations are expected to be flat after 2005. Included in the historical non-commercial air taxi operations are Federal Reserve canceled check hauling flights by AirNet Systems. These flights were operated in the nighttime hours using predominately Learjet aircraft. In the spring of 2005, AirNet Systems moved their operations to Rickenbacker International Airport. As a result, there was a 46 percent decline in non-commercial air taxi operations at CMH in 2005. Over the longer term, the balance of non-commercial air taxi (business jets) operations is projected to grow at approximately twice the rate of general aviation, reflecting the national trend. After recording low level of activity in 2001, general aviation operations grew in 2002 and 2003, declined in 2004 and 2005, and are expected to be relatively flat in 2006. General aviation, including non-commercial air taxi, operations are particularly sensitive to the rising fuel costs. Non-passenger traffic was previously expected to resume growth after 2004. With the persistent high fuel costs, this segment of activity may take longer to recover than previously thought. GA operations are projected to experience long term growth of approximately 1 percent per year on average over the forecast period. **Table 5** presents the updated aircraft operations forecast.

Table 5
Aircraft Operations Forecast

		Passenger			Non-Commercial		General	
	Year	Air Carrier	Commuter	All-Cargo	Air Taxi	Military	Aviation	Total
Actual	2000	72,138	53,204	2,412	44,439	1,903	63,915	238,011
	2001	66,434	61,182	1,750	49,402	1,775	62,658	243,201
	2002	59,952	70,894	890	54,412	1,378	68,104	255,630
	2003	50,546	65,154	1,064	50,751	1,229	69,235	237,979
	2004	50,940	65,750	1,144	47,125	1,348	63,788	230,095
	2005	49,536	71,180	1,322	25,322	999	62,121	210,480
Estimate	2006	40,600	79,072	1,320	25,830	1,500	62,000	210,322
Forecast	2008	42,530	84,430	1,320	26,880	1,200	63,250	219,610
	2012	47,040	97,120	1,320	29,100	1,200	65,820	241,600
	2018	54,690	111,610	1,320	32,770	1,200	69,860	271,450
	2023	61,780	117,660	1,320	36,190	1,200	73,430	291,580
	Average Annual Compound Growth Rates (AACGR)							
	2000-2005	-7.2%	6.0%	-11.3%	-10.6%	-12.1%	-0.6%	-2.4%
	2005-2008	-5.0%	5.9%	-0.1%	2.0%	6.3%	0.6%	1.4%
	2008-2012	2.6%	3.6%	0.0%	2.0%	0.0%	1.0%	2.4%
	2012-2018	2.5%	2.3%	0.0%	2.0%	0.0%	1.0%	2.0%
	2018-2023	2.5%	1.1%	0.0%	2.0%	0.0%	1.0%	1.4%
	2005-2023	1.2%	2.8%	-0.0%	2.0%	1.0%	0.9%	1.8%

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Military operations are projected to reach 1,500 operations in 2006, based on data through June 2006. Over the remainder of the forecast period, 1,200 military operations are forecast, which is in line with the annual average experienced in recent years.

Table 6 presents a comparison of the aircraft operations forecast to the 2005 TAF. The FAA encourages airport sponsors to develop local forecasts because these usually consider trends at the airport and in the surrounding community. At the same time, these local forecasts should be consistent with the current TAF in order to be used for planning and environmental studies. The operations forecast is within the required 10 percent five-year threshold for the 2005 TAF and within the 15 percent 10-year threshold.[2] One of the main reasons for the variance is that the 2005 base year is 5.4 percent lower on a calendar year basis than a federal fiscal year basis (12 months ended September), due, in large part, to the calendar year containing a higher proportion of the lost AirNet air taxi operations. In terms of growth rates the current forecast update (1.8 percent annual growth) and 2005 FAA TAF (1.7 percent annual growth) are relatively similar.

[2] FAA Memorandum, *Revision to Guidance on Review and Approval of Aviation Forecast*, December 23, 2004.

Table 6
Aircraft Operations Forecast Comparison

Year	June 2006 Forecast	2005 TAF	Forecast vs. 2005 TAF Variance
2004	230,095	229,325	0.3%
2005	210,480	222,531	-5.4%
2006	210,322	226,363	-7.1%
2007	214,650	230,283	-6.8%
2008	219,610	234,294	-6.3%
2009	224,690	238,397	-5.7%
2010	229,910	242,597	-5.2%
2011	236,190	246,895	-4.3%
2012	241,600	251,291	-3.9%
2013	247,150	255,791	-3.4%
2014	252,840	260,395	-2.9%
2015	258,690	264,572	-2.2%
2016	263,770	268,842	-1.9%
2017	267,570	273,207	-2.1%
2018	271,450	277,670	-2.2%
2019	275,390	282,233	-2.4%
2020	279,410	286,897	-2.6%
2021	283,460	291,667	-2.8%
2022	287,490	296,543	-3.1%
2023	291,580	301,530	-3.3%

Average Annual Growth Rates (AAGR)		
2005-2020	1.9%	1.7%
2005-2023	1.8%	1.7%

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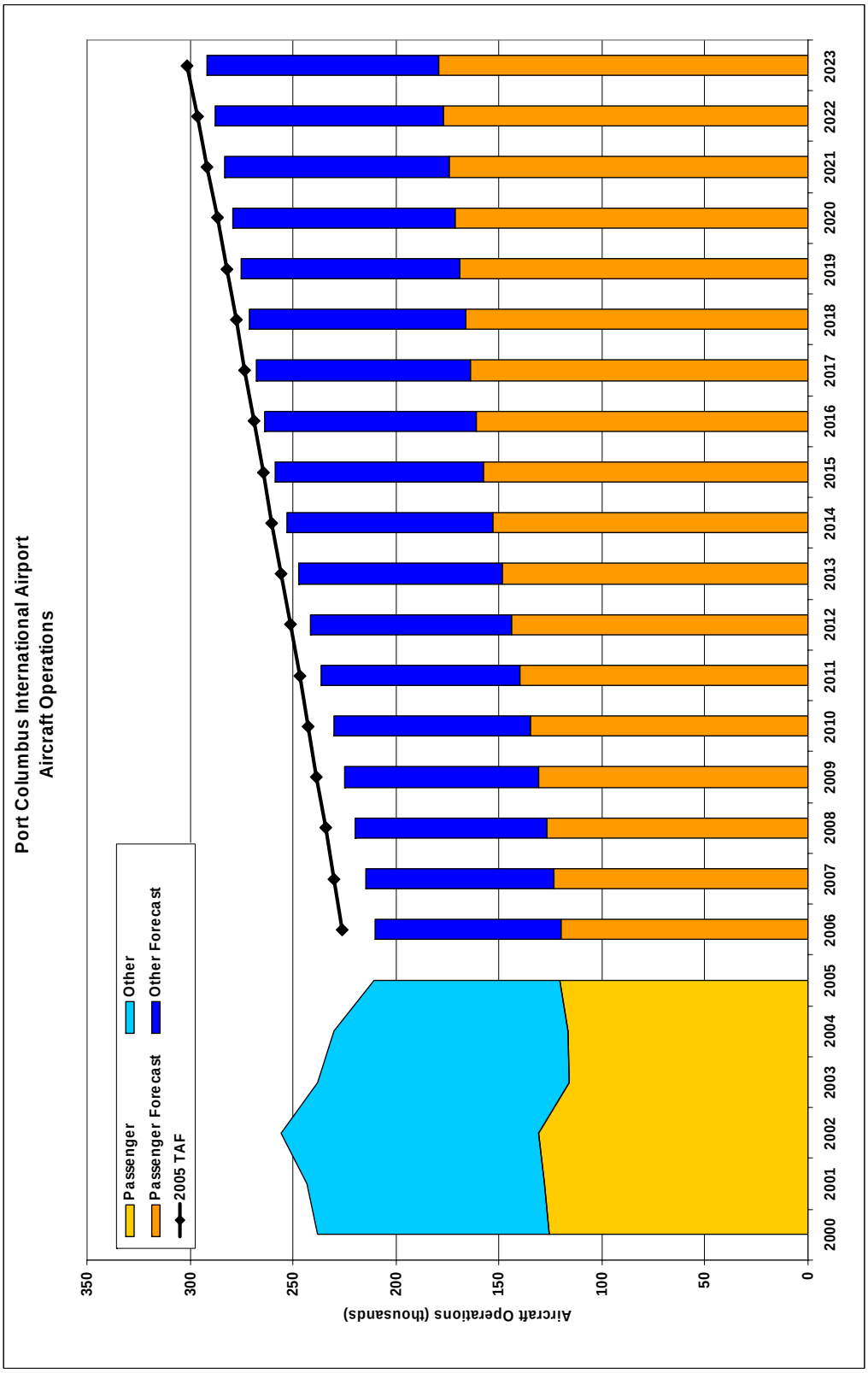
The aircraft operations forecast is presented graphically in **Exhibit 2**.

Exhibit 2


Port Columbus International Airport
Aircraft Operations
Aircraft Operations (thousands)
350
300
250
200
150
100
50
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Passenger
Passenger Forecast
2005 TAF
Other
Other Forecast

Peak Hour Passenger Operations and Fleet Mix Forecast

The previous forecast update used a peak month average day for purposes of developing the peak hour passenger operations and fleet mix forecast. This is typical methodology for use in the Master Planning process. The current forecast update is primarily going to be used as an input to an Environmental Impact Statement. Under these circumstances an average annual day is typically used. As a result, Monday, October 3rd was selected as a representative average day for 2005. Based upon the commercial passenger flight schedule, the peak hour for departing flights is between 6:00 and 6:59 AM. The peak hour for arriving passenger flights is between 5:00 and 5:59 PM. The peak hour for total passenger flights is also 5:00 to 5:59 PM as shown in **Table 7**. The peak hour represents 9.2 percent of the total.

Table 7
Hourly Distribution of Passenger Flights

Hour	Arrivals	Departures	Total
0	1	-	1
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	5	5
6	-	**22**	22
7	1	9	10
8	6	11	17
9	11	13	24
10	11	11	22
11	12	11	23
12	6	10	16
13	10	8	18
14	10	13	23
15	9	7	16
16	14	10	24
17	**15**	17	**32**
18	9	10	19
19	8	12	20
20	11	3	14
21	13	2	15
22	14	-	14
23	12	-	12
Total	173	174	347

Note: Bold indicates peak hour.
Source: Official Airline Guide, October 3, 2005.

The forecast peak hour passenger operations count and fleet mix for the major horizon years is presented in **Table 8** with the annual level fleet mix forecast presented in **Table 9**. Based upon radar data for the selected average day (October 3, 2005), total non-passenger operations during the commercial peak hour, 5:00PM to 5:59PM, was 13 operations.

Table 8
Peak Hour Passenger Aircraft Operations and Fleet Mix

	2005	2008	2012	2018	2023	2005	2008	2012	2018	2023
Arrivals	15	15	17	19	21					
Departures	17	18	21	24	26					
Operations	32	33	38	43	47					
Air Carrier	13	11	12	14	16					
Commuter	19	22	26	29	31					
Total	32	33	38	43	47					
Air Carrier Fleet										
757/739	0	0	0	1	1	0.0%	0.0%	0.0%	7.1%	6.3%
738	1	1	2	2	2	7.7%	9.1%	16.7%	14.3%	12.5%
MD80	2	1	0	0	0	15.4%	9.1%	0.0%	0.0%	0.0%
319/320	1	1	1	0	0	7.7%	9.1%	8.3%	0.0%	0.0%
73G/735/733	7	7	8	10	12	53.8%	63.6%	66.7%	71.4%	75.0%
717/DC9/E190	2	1	1	1	1	15.4%	9.1%	8.3%	7.1%	6.3%
Subtotal	13	11	12	14	16	100.0%	100.0%	100.0%	100.0%	100.0%
Commuter Fleet										
CR9	0	1	1	1	2	0.0%	4.5%	3.8%	3.4%	6.5%
CR7	1	1	2	3	4	5.3%	4.5%	7.7%	10.3%	12.9%
CRJ/ERJ/ER4	11	13	16	19	20	57.9%	59.1%	61.5%	65.5%	64.5%
ER3/ERD/DH8/DH1	5	5	5	4	2	26.3%	22.7%	19.2%	13.8%	6.5%
SF3/FRJ/J41	1	1	0	0	0	5.3%	4.5%	0.0%	0.0%	0.0%
E70	1	1	2	2	3	5.3%	4.5%	7.7%	6.9%	9.7%
Subtotal	19	22	26	29	31	100.0%	100.0%	100.0%	100.0%	100.0%
Total	32	33	38	43	47					

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Table 9
Annual Departure Fleet Mix

		2005		2008		2012		2018		2023	
	Seats	Departures	Share	Departures	Share	Departures	Share	Departures	Share	Departures	Share
Air Carrier											
757/739	188/189	113	0.1%	255	0.2%	612	0.5%	1,094	0.8%	1,545	1.1%
738	155	743	0.7%	1,170	1.1%	1,646	1.4%	2,324	1.7%	3,089	2.1%
320/32S/321	150	1,147	1.1%	872	0.8%	706	0.6%	328	0.2%	154	0.1%
M80/M83/734	142-146	4,325	4.1%	2,998	2.7%	1,882	1.6%	1,367	1.0%	309	0.2%
733/73G	137	11,279	10.7%	10,845	9.9%	14,230	11.8%	18,321	13.5%	21,932	15.0%
D95	125	544	0.5%	234	0.2%	47	0.0%	0	0.0%	0	0.0%
319	124	1,472	1.4%	319	0.3%	118	0.1%	0	0.0%	0	0.0%
735	122	1,438	1.4%	1,382	1.3%	1,411	1.2%	1,367	1.0%	927	0.6%
717	117	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
DC9/D9S	78/100	3,707	3.5%	2,977	2.7%	2,117	1.8%	820	0.6%	0	0.0%
E190/195	98/108	0	0.0%	213	0.2%	753	0.6%	1,723	1.3%	2,935	2.0%
Total Air Carrier		24,768	23.5%	21,265	19.4%	23,520	19.5%	27,345	20.1%	30,890	21.2%
Commuter											
ARJ	82	712	0.7%	422	0.4%	243	0.2%	0	0.0%	0	0.0%
CR9	80	0	0.0%	211	0.2%	486	0.4%	1,116	0.8%	2,353	1.6%
CR7	70	1,780	1.7%	2,955	2.7%	4,856	4.0%	6,697	4.9%	8,236	5.6%
E70	70	1,424	1.4%	1,646	1.5%	3,885	3.2%	4,743	3.5%	5,883	4.0%
CRJ/ERJ/ER4	50	21,710	20.6%	26,173	23.8%	31,078	25.7%	36,273	26.7%	39,416	27.0%
ERD	44	2,847	2.7%	3,377	3.1%	3,399	2.8%	3,348	2.5%	1,177	0.8%
DH1/8	37	1,780	1.7%	1,900	1.7%	728	0.6%	0	0.0%	0	0.0%
ER3	37	3,559	3.4%	4,010	3.7%	3,885	3.2%	3,627	2.7%	1,765	1.2%
SF3	34	712	0.7%	760	0.7%	0	0.0%	0	0.0%	0	0.0%
FRJ	32	712	0.7%	760	0.7%	0	0.0%	0	0.0%	0	0.0%
D38/J41	29	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
BE1	19	356	1.4%	0	1.5%	0	3.2%	0	3.5%	0	4.0%
Total Commuter		35,590	33.8%	42,215	38.4%	48,560	40.2%	55,805	41.1%	58,830	40.4%
Cargo											
CVR		661	0.6%	660	0.6%	660	0.5%	660	0.5%	660	0.5%
Military											
BE2		500	0.5%	600	0.5%	600	0.5%	600	0.4%	600	0.4%
Non-Com AT											
C56, C65, C75 GL4, H25, HS2 L35, LJ3, LJ4		12,670	12.0%	13,440	12.2%	14,550	12.0%	16,385	12.1%	18,095	12.4%
Gen'l Aviation											
B36, B58, BE2, BE4 BE9, C17, C18, C31 C56, CL6, D95, F2H FA5, MU2, SBR, SW3		31,060	29.5%	31,625	28.8%	32,910	27.2%	34,930	25.7%	36,715	25.2%
Airport Total		105,249	100.0%	109,805	100.0%	120,800	100.0%	135,725	100.0%	145,790	100.0%

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Table 10 is a summary comparison table of forecast enplanements and operations for the CRAA's forecast and the 2005 TAF.

Table 10
Summary Comparison to 2005 TAF

		Enplanements			Operations		
		CRAA	2005	Precent	CRAA	2005	Percent
	Year	Forecast	TAF	Variance	Forecast	TAF	Variance
Actual	2000	3,462,920	3,447,628	0.4%	238,011	235,538	1.0%
	2001	3,336,027	3,412,384	-2.2%	243,201	243,203	-0.0%
	2002	3,348,456	3,204,770	4.5%	255,630	253,325	0.9%
	2003	3,156,520	3,149,103	0.2%	237,979	240,665	-1.1%
	2004	3,112,870	2,996,209	3.9%	230,095	229,325	0.3%
	2005	3,306,753	3,374,708	-2.0%	210,480	222,531	-5.4%
Estimate	2006	3,376,675	3,429,853	-1.6%	210,322	226,363	-7.1%
Forecast	2007	3,503,800	3,487,962	0.5%	214,650	230,283	-6.8%
	2008	3,641,500	3,549,192	2.6%	219,610	234,294	-6.3%
	2009	3,784,600	3,613,712	4.7%	224,690	238,397	-5.7%
	2010	3,933,400	3,681,699	6.8%	229,910	242,597	-5.2%
	2011	4,086,900	3,753,339	8.9%	236,190	246,895	-4.3%
	2012	4,214,900	3,828,828	10.1%	241,600	251,291	-3.9%
	2013	4,347,000	3,908,374	11.2%	247,150	255,791	-3.4%
	2014	4,483,300	3,992,193	12.3%	252,840	260,395	-2.9%
	2015	4,624,000	4,080,516	13.3%	258,690	264,572	-2.2%
	2016	4,768,100	4,173,584	14.2%	263,770	268,842	-1.9%
	2017	4,875,800	4,271,653	14.1%	267,570	273,207	-2.1%
	2018	4,986,100	4,374,991	14.0%	271,450	277,670	-2.2%
	2019	5,098,900	4,483,881	13.7%	275,390	282,233	-2.4%
	2020	5,214,500	4,598,623	13.4%	279,410	286,897	-2.6%
	2021	5,331,900	4,719,529	13.0%	283,460	291,667	-2.8%
	2022	5,448,700	4,846,931	12.4%	287,490	296,543	-3.1%
	2023	5,568,300	4,981,179	11.8%	291,580	301,530	-3.3%

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Sources: Airport data; FAA, 2005 Terminal Area Forecast; Landrum & Brown analysis

HIGH SCENARIO

Enplanement Forecast - High Scenario

The high scenario assumes that a new entrant, low cost carrier (LCC) introduces single class service at the Airport in early 2007. The new entrant is assumed to operate 150-seat narrowbody aircraft, principally to medium and long haul markets such as Florida and the West Coast. Due to the low fares offered, this new entrant carrier could stimulate the local (O&D) demand approximately 100 percent in most of the selected markets. The new entrant carrier is expected to stimulate traffic in certain markets, but it would also attract passengers from incumbent carriers in existing markets with non-stop service. The new entrant carrier is assumed to acquire 1 new aircraft every other month until average daily departures reach approximately 65. Thereafter, enplanements are projected to grow at approximately 3.0 percent per anum until an average annual load factor of 75 percent is reached.[3] **Table 11** summarizes the high scenario enplanement forecast.

Table 11
Enplanements Forecast – High Scenario

	Year	O&D	Connecting	Total Enplanements	Air Carrier	Commuter	Percent Commuter
Actual	2000	3,278,850	184,070	3,462,920	2,838,521	624,399	18.0%
	2001	3,163,749	172,278	3,336,027	2,639,272	696,755	20.9%
	2002	3,057,111	291,345	3,348,456	2,446,580	901,876	26.9%
	2003	2,904,748	251,772	3,156,520	2,189,420	967,100	30.6%
	2004	2,986,262	126,608	3,112,870	2,121,901	990,969	31.8%
	2005	3,192,166	114,587	3,306,753	2,100,172	1,206,581	36.5%
Forecast	2008	4,654,300	140,100	4,794,400	3,241,900	1,552,500	32.4%
	2012	6,685,500	162,100	6,847,600	4,994,300	1,853,300	27.1%
	2018	7,427,000	191,800	7,618,800	5,413,000	2,205,800	29.0%
	2023	7,986,800	214,200	8,201,000	5,806,600	2,394,400	29.2%
Average Annual Compound Growth Rates							
	2000-2005	-0.5%	-9.0%	-0.9%	-5.8%	14.1%	
	2005-2008	13.4%	6.9%	13.2%	15.6%	8.8%	
	2008-2012	9.5%	3.7%	9.3%	11.4%	4.5%	
	2012-2018	1.8%	2.8%	1.8%	1.4%	2.9%	
	2018-2023	1.5%	2.2%	1.5%	1.4%	1.7%	
	2005-2023	5.2%	3.5%	5.2%	5.8%	3.9%	

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[3] A 75 percent long term load factor was selected based on a range provided in the "new entrant" airlines business plan.

Aircraft Operations Forecast – High Scenario

The forecast aircraft operations for the high scenario are the same as the expected case with the addition of the passenger air carrier operations for the new entrant carrier. The new LCC is assumed to operate 150-seat aircraft at an average load factor of 70 percent, resulting in an average of 105 enplanements per departure for the new entrant during the first three years of operation. The new entrant carrier would not significantly impact the operations of the commuter carriers due to its longer average stage length. **Table 12** presents the aircraft operations forecast for the high scenario.

Table 12
Operations Forecast – High Scenario

	Year	Air Carrier	Commuter	All-Cargo	Non-Commercial Air Taxi	Military	General Aviation	Total
Actual	2000	72,138	53,204	2,412	44,439	1,903	63,915	238,011
	2001	66,434	61,182	1,750	49,402	1,775	62,658	243,201
	2002	59,952	70,894	890	54,412	1,378	68,104	255,630
	2003	50,546	65,154	1,064	50,751	1,229	69,235	237,979
	2004	50,940	65,750	1,144	47,125	1,348	63,788	230,095
	2005	49,536	71,180	1,322	25,322	999	62,121	210,480
Forecast	2008	64,490	84,430	1,320	26,880	1,200	63,250	241,570
	2012	93,840	97,120	1,320	29,100	1,200	65,820	288,400
	2018	101,490	111,610	1,320	32,770	1,200	69,860	318,250
	2023	108,580	117,660	1,320	36,190	1,200	73,430	338,380
	Average Annual Compound Growth Rates (AACGR)							
	2000-2005	-7.2%	6.0%	-11.3%	-10.6%	-12.1%	-0.6%	-2.4%
	2005-2008	9.2%	5.9%	-0.1%	2.0%	6.3%	0.6%	4.7%
	2008-2012	9.8%	3.6%	0.0%	2.0%	0.0%	1.0%	4.5%
	2012-2018	1.3%	2.3%	0.0%	2.0%	0.0%	1.0%	1.7%
	2018-2023	1.4%	1.1%	0.0%	2.0%	0.0%	1.0%	1.2%
	2005-2023	4.5%	2.8%	-0.0%	2.0%	1.0%	0.9%	2.7%

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The High Scenario forecast peak hour passenger operations count and fleet mix for the major horizon years is presented in **Table 13**. Although the peak departure hour count is expected to increase significantly, the peak hour for total operations under the High Scenario is projected to remain 5:00 PM to 5:59 PM.

Table 13
Peak Hour Passenger Aircraft Operations and Fleet Mix – High Scenario

	2005	2008	2012	2018	2023	2005	2008	2012	2018	2023
Arrivals	15	18	23	25	27					
Departures	17	21	27	30	32					
Operations	32	39	50	55	59					
Air Carrier	13	17	24	26	28					
Commuter	19	22	26	29	31					
Total	32	39	50	55	59					
Air Carrier Fleet										
757/739	0	0	0	1	1	0.0%	0.0%	0.0%	3.8%	3.6%
738	1	1	2	2	2	7.7%	5.9%	8.3%	7.7%	7.1%
MD80	2	1	0	0	0	15.4%	5.9%	0.0%	0.0%	0.0%
319/320	1	7	13	12	12	7.7%	41.2%	54.2%	46.2%	42.9%
73G/735/733	7	7	8	10	12	53.8%	41.2%	33.3%	38.5%	42.9%
717/DC9/E190	2	1	1	1	1	15.4%	5.9%	4.2%	3.8%	3.6%
Subtotal	13	17	24	26	28	100.0%	100.0%	100.0%	100.0%	100.0%
Commuter Fleet										
CR9	0	1	1	1	2	0.0%	4.5%	3.8%	3.4%	6.5%
CR7	1	1	2	3	4	5.3%	4.5%	7.7%	10.3%	12.9%
CRJ/ERJ/ER4	11	13	16	19	20	57.9%	59.1%	61.5%	65.5%	64.5%
ER3/ERD/DH8/DH1	5	5	5	4	2	26.3%	22.7%	19.2%	13.8%	6.5%
SF3/FRJ/J41	1	1	0	0	0	5.3%	4.5%	0.0%	0.0%	0.0%
E70	1	1	2	2	3	5.3%	4.5%	7.7%	6.9%	9.7%
Subtotal	19	22	26	29	31	100.0%	100.0%	100.0%	100.0%	100.0%
Total	32	39	50	55	59					

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The airport-wide fleet mix under the High Scenario is presented in **Table 14.** The enplaned passenger and aircraft operations forecasts for the High Scenario are presented graphically in **Exhibits 3** and **4**, respectively.

Table 14
Annual Departure Fleet Mix – High Scenario

		2005		2008		2012		2018		2023	
	Seats	Departures	Share	Departures	Share	Departures	Share	Departures	Share	Departures	Share
Air Carrier											
757/739	188/189	113	0.1%	255	0.2%	612	0.4%	1,094	0.7%	1,545	0.9%
738	155	743	0.7%	1,170	1.0%	1,646	1.1%	2,324	1.5%	3,089	1.8%
320/32S/321	150	1,147	1.1%	11,852	9.8%	24,106	16.7%	23,728	14.9%	23,554	13.9%
M80/M83/734	142-146	4,325	4.1%	2,998	2.5%	1,882	1.3%	1,367	0.9%	309	0.2%
733/73G	137	11,279	10.7%	10,845	9.0%	14,230	9.9%	18,321	11.5%	21,932	13.0%
D95	125	544	0.5%	234	0.2%	47	0.0%	0	0.0%	0	0.0%
319	124	1,472	1.4%	319	0.3%	118	0.1%	0	0.0%	0	0.0%
735	122	1,438	1.4%	1,382	1.1%	1,411	1.0%	1,367	0.9%	927	0.5%
717	117	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
DC9/D9S	78/100	3,707	3.5%	2,977	2.5%	2,117	1.5%	820	0.5%	0	0.0%
E190/195	98/108	0	0.0%	213	0.2%	753	0.5%	1,723	1.1%	2,935	1.7%
Total Air Carrier		24,768	23.5%	32,245	26.7%	46,920	32.5%	50,745	31.9%	54,290	32.1%
Commuter											
ARJ	82	712	0.7%	422	0.3%	243	0.2%	0	0.0%	0	0.0%
CR9	80	0	0.0%	211	0.2%	486	0.3%	1,116	0.7%	2,353	1.4%
CR7	70	1,780	1.7%	2,955	2.4%	4,856	3.4%	6,697	4.2%	8,236	4.9%
E70	70	1,424	1.4%	1,646	1.4%	3,885	2.7%	4,743	3.0%	5,883	3.5%
CRJ/ERJ/ER4	50	21,710	20.6%	26,173	21.7%	31,078	21.6%	36,273	22.8%	39,416	23.3%
ERD	44	2,847	2.7%	3,377	2.8%	3,399	2.4%	3,348	2.1%	1,177	0.7%
DH1/8	37	1,780	1.7%	1,900	1.6%	728	0.5%	0	0.0%	0	0.0%
ER3	37	3,559	3.4%	4,010	3.3%	3,885	2.7%	3,627	2.3%	1,765	1.0%
SF3	34	712	0.7%	760	0.6%	0	0.0%	0	0.0%	0	0.0%
FRJ	32	712	0.7%	760	0.6%	0	0.0%	0	0.0%	0	0.0%
D38/J41	29	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
BE1	19	356	1.4%	0	1.4%	0	2.7%	0	3.0%	0	3.5%
Total Commuter		35,590	33.8%	42,215	35.0%	48,560	33.7%	55,805	35.1%	58,830	34.8%
Cargo											
CVR		661	0.6%	660	0.5%	660	0.5%	660	0.4%	660	0.4%
Military											
BE2		500	0.5%	600	0.5%	600	0.4%	600	0.4%	600	0.4%
Non-Com AT											
C56, C65, C75 GL4, H25, HS2 L35, LJ3, LJ4		12,670	12.0%	13,440	11.1%	14,550	10.1%	16,385	10.3%	18,095	10.7%
Gen'l Aviation											
B36, B58, BE2, BE4 BE9, C17, C18, C31 C56, CL6, D95, F2H FA5, MU2, SBR, SW3		31,060	29.5%	31,625	26.2%	32,910	22.8%	34,930	22.0%	36,715	21.7%
Airport Total		105,249	100.0%	120,785	100.0%	144,200	100.0%	159,125	100.0%	169,190	100.0%

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Exhibit 3

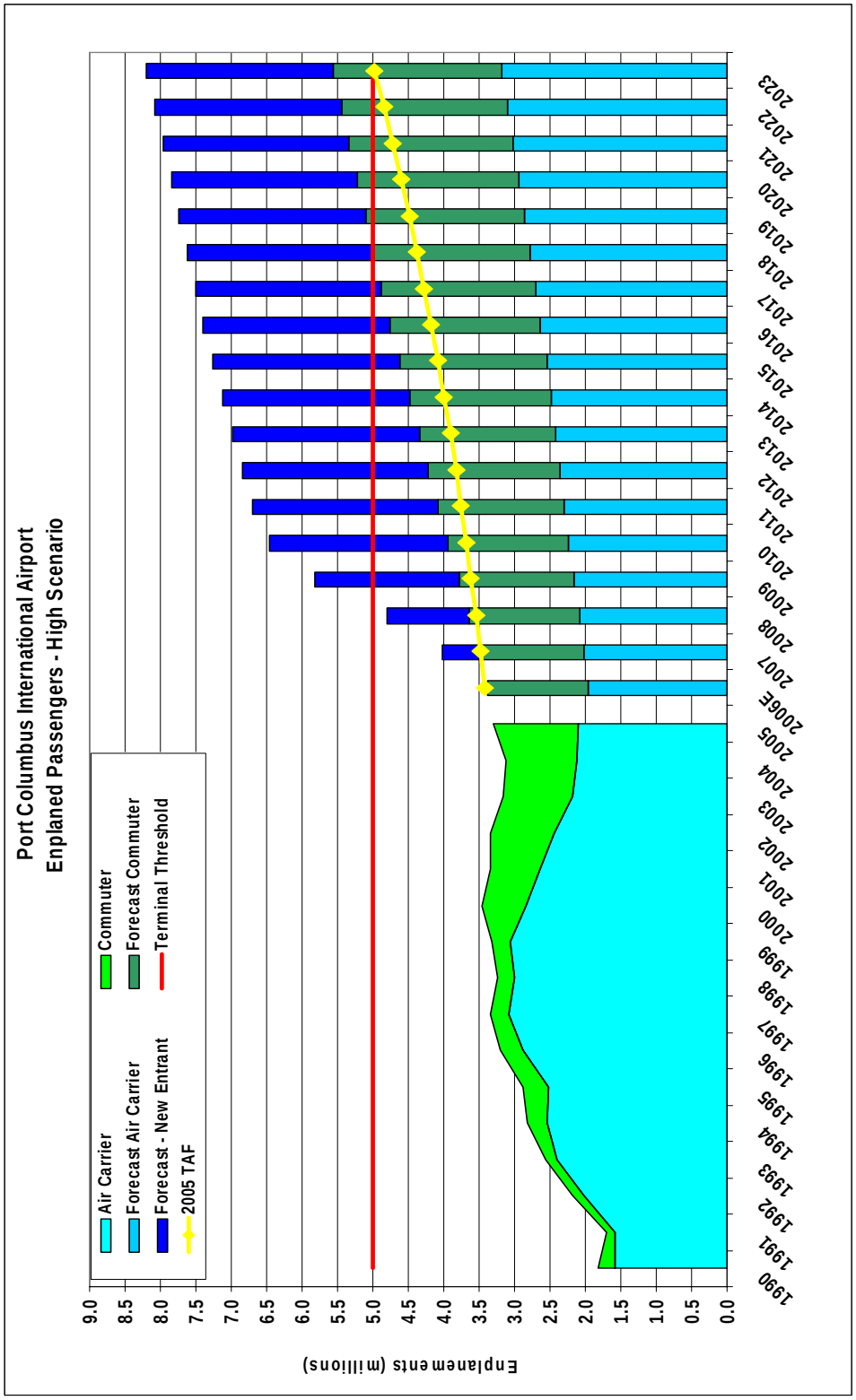
Port Columbus International Airport
Enplaned Passengers - High Scenario
Air Carrier
Forecast Air Carrier
Forecast - New Entrant
2005 TAF
Commuter
Forecast Commuter
Terminal Threshold
Enplanements (millions)
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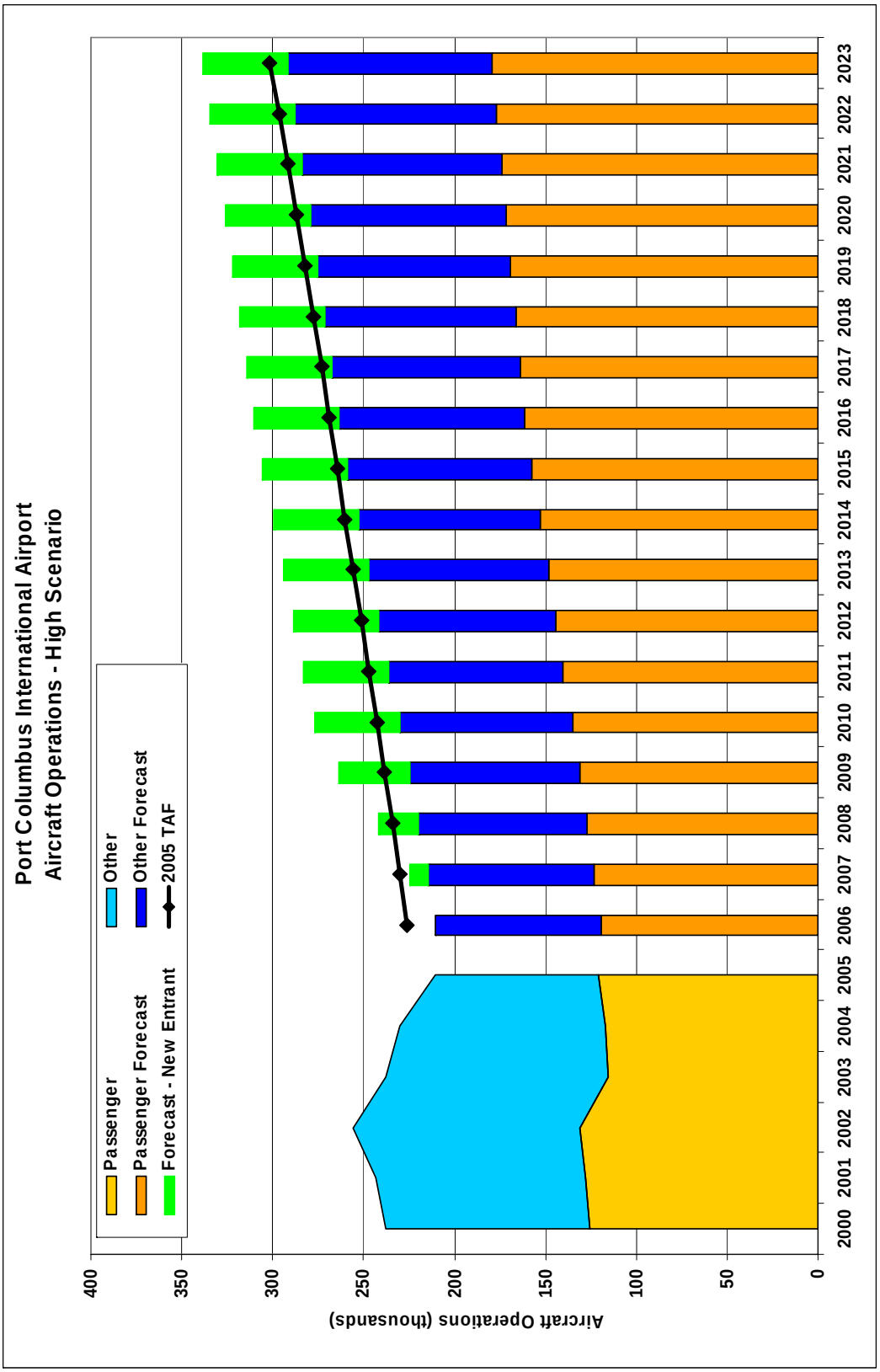
Exhibit 4


Port Columbus International Airport
Aircraft Operations - High Scenario
Passenger
Other
Passenger Forecast
Other Forecast
Forecast - New Entrant
2005 TAF
Aircraft Operations (thousands)
400
350
300
250
200
150
100
50
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2000
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APPENDIX

Table A - 1

Woods & Poole Economic/Demographic Data

Woods & Poole Economics, Inc.
2005 Desktop Data Files 1970 to 2030
Columbus, OH MSA

Year	Population (000)	Employment (000)	Personal Income (1996$ million)	Earnings (1996$ million)	Per Capita Personal Income (1996$)
1990	1,411	883	$31,997	$26,207	$22,676
1991	1,432	903	$32,913	$27,017	$22,985
1992	1,453	924	$33,855	$27,853	$23,298
1993	1,475	945	$34,824	$28,714	$23,615
1994	1,497	966	$35,821	$29,603	$23,936
1995	1,519	988	$36,847	$30,518	$24,262
1996	1,532	1,009	$37,628	$31,310	$24,568
1997	1,551	1,030	$39,868	$32,936	$25,701
1998	1,575	1,064	$42,383	$35,422	$26,915
1999	1,596	1,088	$44,146	$37,381	$27,660
2000	1,619	1,120	$46,558	$39,672	$28,757
2001	1,640	1,122	$47,116	$40,276	$28,734
2002	1,656	1,122	$47,936	$40,837	$28,948
2003	1,675	1,143	$49,187	$42,070	$29,373
2004	1,695	1,163	$50,336	$43,108	$29,702
2005	1,716	1,183	$51,454	$44,112	$29,986
2006	1,736	1,204	$52,623	$45,168	$30,306
2007	1,758	1,224	$53,801	$46,226	$30,607
2008	1,779	1,245	$55,002	$47,305	$30,915
2009	1,800	1,265	$56,228	$48,405	$31,233
2010	1,822	1,286	$57,479	$49,526	$31,555
2011	1,843	1,305	$58,752	$50,664	$31,877
2012	1,865	1,326	$60,054	$51,828	$32,201
2013	1,887	1,346	$61,384	$53,018	$32,530
2014	1,909	1,367	$62,744	$54,236	$32,861
2015	1,932	1,388	$64,134	$55,482	$33,196
2016	1,954	1,408	$65,551	$56,742	$33,542
2017	1,977	1,428	$66,998	$58,030	$33,892
2018	2,000	1,448	$68,477	$59,348	$34,246
2019	2,023	1,469	$69,989	$60,696	$34,603
2020	2,046	1,490	$71,534	$62,075	$34,964
2021	2,069	1,510	$73,114	$63,474	$35,336
2022	2,093	1,530	$74,729	$64,904	$35,712
2023	2,116	1,551	$76,380	$66,367	$36,091

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CHAPTER ONE
BACKGROUND

The Columbus Regional Airport Authority (CRAA) has conducted an update to its Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Study (Noise Compatibility Study) to document the noise levels from aircraft operations at the Port Columbus International Airport (CMH). The purpose for conducting a Noise Compatibility Study is to reduce the impacts of noise from existing aircraft operations on incompatible land uses and to discourage the introduction of new incompatible land uses in the areas that are determined to be impacted by aircraft noise. This chapter provides the background information necessary for public and/or governmental reviewers to make an informed decision as to the adequacy of the Noise Compatibility Study to meet the requirements set forth by FAR Part 150 under which it was prepared.

1.1 FAR PART 150

Part 150 is a section of the FAR that sets forth rules and guidelines for airports desiring to undertake airport noise compatibility planning. The regulations were promulgated by the Federal Aviation Administration (FAA) pursuant to the Aviation Safety and Noise Abatement Act (ASNA) of 1979, Public Law 96-193. ASNA was enacted to "… provide and carry out noise compatibility programs, to improve assistance to assure continued safety in aviation and for other purposes." The FAA was vested with the authority to implement and administer this act. This legislation required the establishment of a single system for measuring aircraft noise, determining noise exposure, and identifying land uses, which are normally compatible with various noise exposure levels.

Through FAR Part 150, the FAA established regulations governing the technical aspects of aircraft noise analysis and the public participation process for airports choosing to prepare airport noise compatibility plans.

1.1.1 PURPOSE OF CONDUCTING A PART 150 STUDY

The purpose for conducting a Part 150 Study at an airport is to develop a balanced and cost-effective plan for reducing current noise impacts from an airport's operations, where practical, and to limit additional impacts in the future. By following the process, the airport operator is assured of the FAA's cooperation through the involvement of air traffic control professionals in the study and the FAA's review of the recommended Noise Compatibility Program (NCP). An airport with an FAA-approved NCP also becomes eligible for funding assistance for the implementation of measures in the NCP.

Among the general goals and objectives addressed by a Part 150 Study are the following:

- To reduce, where feasible, existing and forecasted noise levels over existing noise-sensitive land uses;

- To reduce new noise-sensitive developments near the airport;
- To mitigate, where feasible, adverse impacts in accordance with Federal guidelines;
- To provide mitigation measures that are sensitive to the needs of the community and its stability;
- To minimize the impact of mitigation measures on local tax bases; and
- To be consistent, where feasible, with local land use planning and development policies.

The previous Noise Compatibility Study for CMH was completed more than six years ago in 1999, and approved by the FAA in January 2001. The CRAA updated the Noise Exposure Maps (NEMs) and adjusted the Sound Insulation Program boundary in 2002. The following describes the reasons for updating the 1999 Part 150 Study.

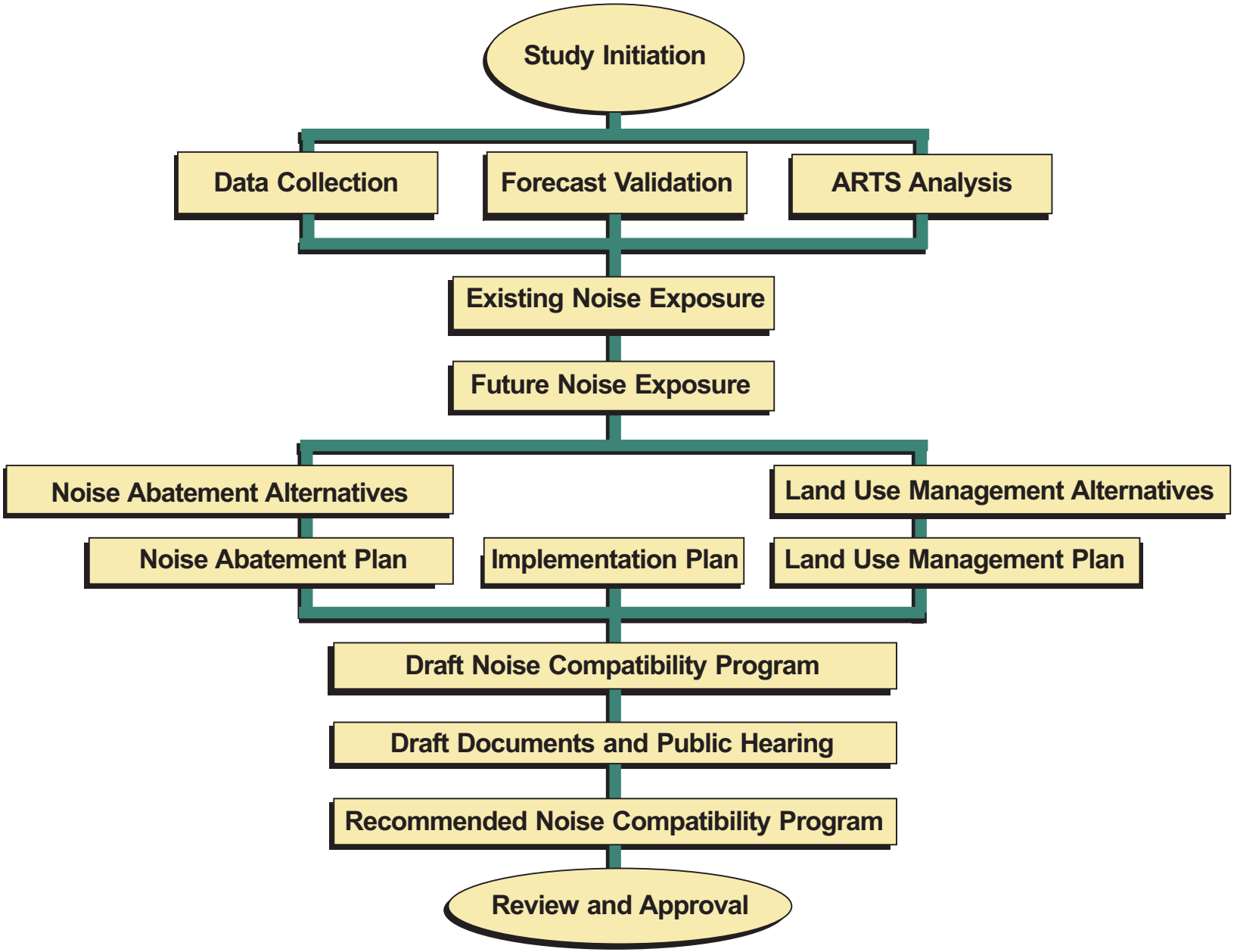
- Typically, airports revise their NEMs and NCP every five years.
- The CRAA has proposed a relocation of the south runway (Runway 10R/28L) and the development of a new passenger terminal to supplement the existing passenger terminal at CMH. The FAA is in the process of preparing an Environmental Impact Statement (EIS) to analyze all of the environmental impacts associated with the proposed improvements. The recommendations of this Part 150 Study Update will be incorporated into the FAA's EIS as part of the Sponsor's Proposed Project.
- In late 2006 and early 2007, new passenger airline service by JetBlue Airways and Skybus Airlines began service at CMH. Skybus Airlines is a new low-cost carrier that began operating a hub at CMH in May 2007.

1.1.2 PART 150 PLANNING PROCESS

The Part 150 planning process involves the methods and procedures an airport operator must follow when developing an NCP. The decision to undertake noise compatibility planning is entirely voluntary on the part of the airport operator. If the airport operator chooses to prepare an NCP, the FAA will provide funding assistance if the operator follows the regulations of FAR Part 150. As a further encouragement to undertake noise compatibility planning, an airport operator becomes eligible for Federal funding assistance for the implementation of measures in an FAA-approved NCP. See **Exhibit 1-1**, ***Noise Compatibility Planning Process***, for a flowchart of the planning process.

A Part 150 Study involves six major steps:

- Identification of airport noise and land use issues and problems;
- Definition of current and future noise exposure patterns;
- Evaluation of alternative measures for abating noise (e.g., changing aircraft flight paths), mitigating the impact of noise (e.g., sound insulation), and managing local land uses (e.g., airport-compatible zoning);
- Development of a NCP;



FAR Part 150 Study
Port Columbus
International Airport

10/8/2007
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GRAPHICS\Final_Part150_
Document\working\
Noise Compatibility.CDR

Noise Compatibility Planning Process

Exhibit:
1-1

- Development of an implementation and monitoring plan; and
- FAA review and approval of the recommended NCP, including the analysis of alternatives, the compatibility plan, and the implementation and monitoring plan.

The Part 150 Study process is designed to identify noise incompatibilities surrounding an airport, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities. For Part 150 Study purposes, noise incompatibilities are generally defined as residences or public use noise-sensitive facilities (libraries, churches, schools, nursing homes, and hospitals) within the 65 Day-Night Average Sound Level (DNL) noise contour.

This process to update the 1999 NCP was designed to accomplish two goals:

- Update the status of the measures included in the 1999 NCP
  - Each previously approved measure was evaluated to determine if it should be continued, withdrawn, or modified, based on operational and land use changes that have occurred since the completion of the 1999 NCP.
- Identify, analyze, and recommend new measures
  - Potential new noise abatement, land use management, and implementation measures were evaluated, based on the existing conditions at CMH and conditions expected to occur within the next five years. Current planning includes relocating the south runway within the next five years. As such the future condition in this Part 150 Study includes the proposed relocated runway.

The planning process has both technical and procedural components. The first component involves the preparation of NEMs, which requires the use of specific technical criteria and methods to complete analyses of aircraft noise exposure, potential noise abatement, and land use mitigation measures. NEMs show the official noise contours for the airport and are prepared for existing conditions (2006) and for five years in the future. The future year for the CMH Part 150 will be 2012, which coincides with the opening year of the proposed relocated runway. The NEMs must be prepared according to FAR Part 150 guidelines with regard to methodology, noise metrics, identification of incompatible land uses, and public participation. More detailed information regarding the NEM process is included in Section 1.1.3 of this chapter.

The second component of the planning process involves the development of an NCP. The NCP sets forth measures intended to mitigate the impacts of significant noise exposure on residential areas near CMH, and to limit, to the extent possible, the introduction of new incompatible land uses into locations exposed to significant noise levels. Levels of significant noise are identified in FAR Part 150. The regulations also require that potentially affected airport users, local governments, and the public be consulted during the study, with the process culminating in the opportunity for a public hearing on the airport's recommended NCP. More detailed information regarding the NCP process is included in Section 1.1.4 of this chapter.

1.1.3 NOISE EXPOSURE MAPS (NEMS)

The NEM component of a Part 150 study presents airport noise exposure contours for the existing condition and a forecast condition five years from the date of submission of the maps for FAA review. The current year NEM is labeled 2006. The data collection and analysis for this Part 150 Study Update began in 2005 and continued through 2006. The total annual operations during this period was 196,592. The FAA's Terminal Area Forecast projects annual operations to be approximately 197,093 operations for calendar year 2007. Based on this, the operating levels used to prepare the Existing (2006) Baseline are essentially the same as the projected operating levels for 2007 (<1 percent difference). 2012 is used as the future year because it is five years from the date of submission and the anticipated opening year of the proposed relocated runway.

The 2012 NEM/NCP includes the implementation of all recommended noise abatement procedures. The NEM noise contours are superimposed on a land use map to show areas of incompatible land use. (Incompatible land use is defined as residences, schools, churches, nursing homes, hospitals, and libraries.) Appendix C, *Noise Modeling Methodology*, contains detailed information on the inputs and methodology for preparing the noise exposure contours. The official NEMs are located at the front of this document with the NEM and NCP checklist.

FAR Part 150 requires the use of standard methodologies and metrics for analyzing and describing noise. It also establishes guidelines for the identification of land uses that are incompatible with noise of different levels. Section 150.21(d) of FAR Part 150 states that airport proprietors are required to update NEMs when changes in the operation of the airport would create any new, substantial incompatible use. This is considered to be an increase in DNL noise levels of 1.5 decibels (dB) over incompatible land uses when the aircraft noise level exceeds 65 DNL. Of course, the airport operator may update the NEMs at any time based on their own needs and concerns. As previously stated, significant changes are expected to occur at CMH over the next five to six years, which indicated the need to update the study.

The airport proprietor can gain limited protection through preparation, submission, and publication of NEMs. ASNA provides in Section 107(a) that:

> "No person who acquires property or an interest therein … in an area surrounding an airport with respect to which a noise exposure map has been submitted shall be entitled to recover damages with respect to the noise attributable to such airport if such person had actual or constructive knowledge of the existence of such noise exposure map unless … such person can show that:
>
> i. A significant change in the type or frequency of aircraft operations at the airport; or
>
> ii. A significant change in the airport layout; or
>
> iii. A significant change in the flight patterns; or
>
> iv. A significant increase in nighttime operations; occurred after the date of acquisition of such property."

ASNA provides that "constructive knowledge" shall be imputed to any person if a copy of the NEM was provided to them at the time of property acquisition or if notice of the existence of the NEM was published three times in a newspaper of general circulation in the area. In addition, Part 150 defines "significant increase" as an increase of 1.5 dB of DNL. For purposes of this provision, FAA officials consider the term "area surrounding an airport" to mean an area within the 65 DNL contour. (See FAR Part 150, Section 150.21(d), (f), and (g)).

An acceptance of the NEMs by the FAA is required before the FAA will approve an NCP for the airport.

1.1.4 NOISE COMPATIBILITY PROGRAM (NCP)

An NCP includes provisions for the abatement of aircraft noise through aircraft operating procedures, air traffic control procedures, or airport facility modifications. It also includes provisions for land use compatibility planning and may include actions to mitigate the impact of noise on incompatible land uses. Chapter Four, *Noise Compatibility Program*, includes detailed information for the CMH NCP recommendations. The NCP must also contain provisions for updating and periodic revision.

FAR Part 150 NCP establishes procedures and criteria for FAA evaluation of the NCP. Two criteria are of particular importance: the airport proprietor may not take any action that imposes an undue burden on interstate or foreign commerce; nor may the proprietor unjustly discriminate between different categories of airport users.

The FAA also reviews changes in flight procedures proposed for noise abatement for potential effects on flight safety, safe and efficient use of the navigable airspace, management and control of the national airspace and traffic control systems, security and national defense, and compliance with applicable laws and regulations. Because the FAA has the ultimate authority for air traffic control and flight procedures related to air traffic control requirements, any measures relating to these subjects that are recommended in an NCP must be explicitly approved by the FAA and may not be implemented unilaterally by the airport proprietor.

FAA approval of Part 150 measures, through a Record of Approval (ROA) that is supported by an environmental assessment and a finding of no significant impact (or as in this case; an EIS and a Record of Decision), environmentally clears the agency to participate in actions over which it has primary implementation responsibility (e.g., air traffic modifications). With an approved NCP, an airport proprietor becomes eligible for Federal funding to implement the eligible items of the program. Approval by the FAA does not, however, commit the agency to either a specific schedule of implementation or guarantee the allocation of Federal funds for implementation of any measure.

1.2 PUBLIC INVOLVEMENT

As discussed previously, a key element in the Part 150 process is public involvement. In order to inform and gather input from the public regarding the findings of the CMH Part 150 Study, a Planning Advisory Committee (PAC) was convened, public workshops were held in the community, and public hearings were held on August 14, 2007 and August 15, 2007.

1.2.1 PLANNING ADVISORY COMMITTEE (PAC)

A PAC was organized early in the planning process to provide feedback and advice to the planning team on the contents and preparation of the Part 150 study. The PAC provided residents, airport users, agencies, and local officials an opportunity to be involved in developing CMH's Part 150 NCP. In refining the NCP, staff from the CRAA, as well as the consultants wanted to benefit from the PAC members' special viewpoints and the people and resources they represented. A process was therefore designed to encourage the open exchange of creative ideas to achieve results. The members of the PAC assisted the process in several ways.

- **As a Sounding Board –** The PAC provided a forum in which the consulting team and other PAC members could present information, findings, ideas, and recommendations. All benefited from listening to the diverse viewpoints and concerns of the wide range of interests represented on the committee.
- **As a Link to the Community –** Each member represented a key constituent interest -- local neighborhoods, local governments, public agencies, or airport users. Committee members could bring together the consulting team and the people they represented, could inform their constituents about the study as it progressed, and could bring the views of others into the committee.
- **As a Critical Reviewer –** The consulting team wished to have its work scrutinized closely for completeness of detail and clarity of thought. The committee membership was urged to point out any shortcomings in the consultant's work and to help improve it.
- **As an Aid to Implementation –** Each member has a unique role to play in implementing the plan, ranging from making changes in flight procedures to changes in local land use plans and regulations.

The PAC operated informally, with no compulsory attendance, no voting, and no offices. The final decision on which measures to include in the Part 150 NCP rests with the CRAA. The meetings were conducted by the consultant team and were conducted at five points in the study when committee input was especially needed. Members were urged to attend the general public information workshops held during the study to listen firsthand to the concerns that were raised and to speak with members of the consultant team and representatives of the airport one-on-one. Many organizations were contacted and invited to designate a representative to serve on the PAC. The resulting membership represents a broad range of interests that includes pilots, airlines, commerce, community, environmental, air

traffic controllers, government and planning, as well as interested and affected citizens. A roster of the membership of the PAC is provided in Appendix G, *Public Involvement*.

1.2.2 PUBLIC INFORMATION WORKSHOPS

During the course of the Part 150 Study, three sets of public information workshops were held in local communities, as summarized below. The workshops were attended by interested citizens, elected officials, and local media representatives. A fourth set of Public Information Workshops concurrent with the Public Hearings were held on August 14th and 15th. Appendix G, *Public Involvement*, includes copies of meeting notices, sign-in sheets, comments received, and meeting handouts.

Public Information Workshop #1 – July 11 & 12, 2006

July 11, 2006
5:00 p.m. – 8:00 p.m.
Holiday Inn
750 Stelzer Road
Columbus, Ohio 43219

July 12, 2006
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, Ohio 43213

Public Information Workshop #2 – December 5 & 6, 2006

December 5, 2006
5:00 p.m. – 8:00 p.m.
Holiday Inn
750 Stelzer Road
Columbus, OH 43219

December 6, 2006
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

Public Information Workshop #3 – April 24 & 25, 2007

April 24, 2007
5:00 p.m. – 8:00 p.m.
Oakland Park at Brentnell
Elementary School
1270 Brentnell Ave
Columbus, OH 43219

April 25, 2007
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

Public Information Workshop #4/Public Hearing – August 14 & 15, 2007

August 14, 2007
5:00 p.m. – 8:00 p.m.
Oakland Park at Brentnell
Elementary School
1270 Brentnell Ave
Columbus, OH 43219

August 15, 2007
5:00 p.m. – 8:00 p.m.
Whitehall Community Park Activities Center
402 North Hamilton Road
Whitehall, OH 43213

1.2.3 PUBLIC HEARING AND COMMENT PERIOD

FAR Part 150 requires that Draft Part 150 NCP documents be made available to the public prior to conducting a Public Hearing. The Draft Part 150 NCP document was made available to the public at local libraries, the airport, and on-line at www.columbusairports.com/noise. A set of Public Information Workshops/Public Hearings were held on August 14, 2007 and August 15, 2007 at Oakland Park at Brentnell and the Whitehall Community Park Activities Center, respectively, from 5:00 p.m. to 8:00 p.m. A list of document locations, a summary of the hearing/workshop, meeting materials, comments received, and response to those comments are included in Appendix G.

1.2.4 ADDITIONAL PUBLIC COORDINATION

As part of the public participation requirement under FAR Part 150, the consultants and airport staff made themselves available for meetings with neighborhood organizations, airport user groups, local government officials, and local residents throughout the study period. On May 3, 2007, a meeting was held with the City of Columbus, Mid Ohio Regional Planning Commission, CRAA staff, and members of the consultant team to discuss the potential land use measures.

Two meetings were held on February 26, 2007 and March 15, 2007 with members of the CMH Air Traffic Control Tower (ATCT), CMH Terminal Radar Approach Control (TRACON), CRAA staff, and members of the consultant team. The meetings addressed the feasibility of potential noise abatement alternatives. Appendix G, *Public Involvement*, includes copies of summaries from the meetings.

1.3 STATUS OF 1999 NOISE COMPATIBILITY PLAN

The 1999 Part 150 Noise Compatibility Study Update included 22 recommended measures: five noise abatement measures, 11 land use management measures, and six implementation measures. Each measure is listed below, followed by its status in *italics.*

1.3.1 SUMMARY OF THE 1999 NCP NOISE ABATEMENT MEASURES

NA-1: Amend the Port Columbus International Airport nighttime maintenance run-up policy to designate an additional run-up location north of the airfield for the relocation of the Executive Jet Aviation's (EJA) new facility. This measure will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.

Status: Implemented

NA-2: Construct a new run-up barrier at the north airfield, if the EJA building does not adequately attenuate jet engine maintenance run-up noise for adjacent residential areas located along I-270.

Status: Implemented

NA-3: Increase nighttime use of Runway 10L/28R, and amend the tower order CMH ATCT 7110.1 to read as follows:

- Unless wind, weather, runway closure or loss of navaids dictate otherwise, between the hours of 10:00 p.m. and 8:00 a.m. local time, Runways 28L and 10R are assigned to jet aircraft;
- Jet aircraft with Stage 3 engines may use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m. local time; and
- Jet aircraft with Stage 3 engines may use Runway 10L or 28R after 6:00 a.m.

Status: Partially implemented. Tower Order was updated to allow jet aircraft with Stage 3 engines to use Runway 10L or 28R after 7:00 a.m. The Tower Order was not updated to include jet aircraft with Stage 3 engines to use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m. local time.

NA-4: Maximize east flow and amend FAA Tower Order CMH ATCT 7110.1B and the Airports Facilities Directory to reflect implementation of the "East Flow" informal preferential runway use system.

Status: Partially implemented. Complex conditions at the airport such as winds, flow control policies at destination airports, and taxi times have limited the use of this measure.

NA-5: Amend FAA Tower Order CMH ATCT 7110.1 and FAA Notice CMH ATCT N7110.22 to read as follows:

During nighttime operations, 10:30 p.m. to 7:00 a.m. local time, the following procedures shall be used for departures off Runway 10R:

i. Aircraft normally assigned a runway heading shall be assigned a heading of 100 degrees.

ii. Propeller driven aircraft, conventional or turboprop, shall be turned no further than 15 degrees left or right (085 degrees to 115 degrees). These headings shall not be altered until the aircraft has reached 3,000 feet Mean Sea Level (MSL) or is three miles from the runway end.

iii. The aircraft will begin the turn at 2.2 Distance Measuring Equipment (DME) from the Runway 10R Localizer(LOC)/DME.

iv. The aircraft must climb to an altitude of 1,215 feet MSL before turning.

Status: Implemented. The measure was developed for AirNet Systems, Inc. operations during the nighttime hours. In June 2005, AirNet relocated from CMH to Rickenbacker International Airport, so its application since then has not been required.

1.3.2 SUMMARY OF THE 1999 NCP LAND USE COMPATIBILITY MEASURES

LU-1: Offer a program for noise insulation of non-compatible structures for non-compatible residences within the DNL 65+ dB contour of the Year 2003 Future Condition Exposure Map, with program implementation, in exchange for an avigation easement.

Status: Implemented, the boundary was updated based on the 2002 NEM Update.

LU-2: Offer a program for noise insulation of non-compatible structures for non-compatible churches within the DNL 65+ dB contour of the Year 2003 Future Condition Exposure Map, with program implementation, in exchange for an avigation easement.

Status: Implemented. One church, the Wonderland Community Church, is located in the 65 DNL of the Future (2012) Baseline Noise Exposure Contour. The CRAA purchased an avigation easement on the property and it is now considered a compatible land use.

LU-3: Seek cooperation from the City of Columbus and Franklin County to amend their Land Use Compatibility Standards to achieve the level of compatibility identified in the Recommended Land Use Compatibility Guidelines.

Status: Partially implemented. Both the City of Columbus and Franklin County have adopted land use development standards similar to what was recommended in the previous NCP. However, in some cases these standards are not as strict as was recommended.

LU-4: Seek cooperation from the City of Columbus and Franklin County to amend the AEO (Airport Environs Overlay) District boundaries. The current boundary of the of the AEOs in the City of Columbus and Franklin County correspond to the 1998 60+ DNL noise contour.

Status: Not implemented. Both Columbus and Franklin County set the AEO boundary at the 65 DNL contour.

LU-5: Seek cooperation from Franklin County to amend the Franklin County Zoning Resolution, Section 660.07, *Avigation Easement*, to require applicant for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport.

Status: Partially implemented. Section 660.07 requires conveyance of avigation easements for variance or conditional use permits only.

LU-6: Seek cooperation from Jefferson Township and the City of Gahanna to adopt the AEO District as part of their official zoning regulations.

Status: Not implemented.

LU-7: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the AEO District.

Status: Not implemented.

LU-8: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the AEO District.

Status: Not implemented.

LU-9: Seek cooperation from the Board of Realtors to participate in a voluntary fair disclosure program for property located within the AEO District.

Status: Not implemented.

LU-10: Periodically place advertisements in real estate sections of local newspapers delineating the boundaries of the AEO District.

Status: Not implemented.

LU-11: Purchase the Buckles property to prevent imminent non-compatible developments from occurring.

Status: Not implemented.

1.3.3 SUMMARY OF THE 1999 NCP PROGRAM MANAGEMENT MEASURES

PM-1: Maintain the noise abatement elements of the FAA ATCT Tower Order

Status: Implemented. The noise abatement elements are contained in the current Tower Order.

PM-2: Maintain the Noise Management Office for NCP management.

Status: Ongoing.

PM-3: Maintain an ongoing public involvement program regarding the NCP.

Status: Ongoing.

PM-4: Maintain the noise and flight track monitoring system, and expand and upgrade the system as necessary. Add four permanent Noise Monitoring Terminals (NMTs) (noise monitoring and upgrade computer software and hardware as necessary).

Status: Implemented. Four NMTs have been installed since the previous Part 150 bringing the total to 12 NMTs. The flight tracking system was upgraded from TAMIS to ANOMS.

PM-5: Routinely update the noise contours and periodically update the noise program.

Status: Ongoing.

PM-6: Establish a land use compatibility task force which meets periodically to discuss issues relevant to airport noise compatibility planning.

Status: Not active.

1.4 AIRPORT FACILITIES AND ACTIVITY

The following sections provide a basic discussion of the history of the airport, a description of the area surrounding the airport, an inventory of the existing airport facilities, and an identification of the typical aircraft activity at CMH.

1.4.1 AIRPORT HISTORY

CMH was opened in 1929. That year the Transcontinental & Western Airline began its New York to West Coast air/rail service through Columbus. By 1939 there were 14 daily flights leaving from CMH.[1]

At the onset of World War II, CMH was one of only 31 non-military airports in the country that could accommodate military aircraft of the time; in 1941 the Federal government took control of and expanded CMH. After the War, CMH began to grow and in 1952 the east/west runway was extended from 4,500 to 8,000 feet in length, making it the longest runway in the Midwest. A new $4 million passenger terminal was dedicated in 1958. In 1965 the airport gained "international" status when a U.S. Customs facility was established. In 1979, the 50th anniversary of air travel at CMH, the airport undertook a $70 million expansion enabling the capacity to land almost 250 flights per day. The terminal was expanded in 1989 with the opening of the seven-gate South Concourse, (also known as Concourse A) and again expanded in 1995 with the four-gate North Concourse (also known as

[1] Columbus Regional Airport Authority, *Port Columbus Milestones,* On-line at: http://www.port-columbus.com/about/history.asp. 2006.

Concourse C). There was a second expansion to Concourse C adding 7 gates. The North Runway (Runway 10L/28R) was extended from 6,000 to 8,000 feet in 1997.[2]

In 1991, the Columbus Municipal Airport Authority was formed. Operation of CMH was transferred from the City of Columbus to the Authority. In late 2002, the City of Columbus, Franklin County, and the Columbus Municipal Airport Authority approved the merger of the Columbus Airport Authority and the Rickenbacker Port Authority, forming the new CRAA, effective January 1, 2003.[3]

1.4.2 AIRPORT LOCATION

CMH is located on the eastern edge of the City of Columbus, to the north of the cities of Bexley and Whitehall, and west of the City of Gahanna and Jefferson Township. The area surrounding CMH includes a mixture of land uses, including single-family residential housing, multi-family residential communities and mobile home parks, and industrial areas. The most densely populated areas are to the west of the airport. **Exhibit 1-2** shows the location of CMH in relation to the Columbus Area.

1.4.3 AIRPORT RUNWAYS

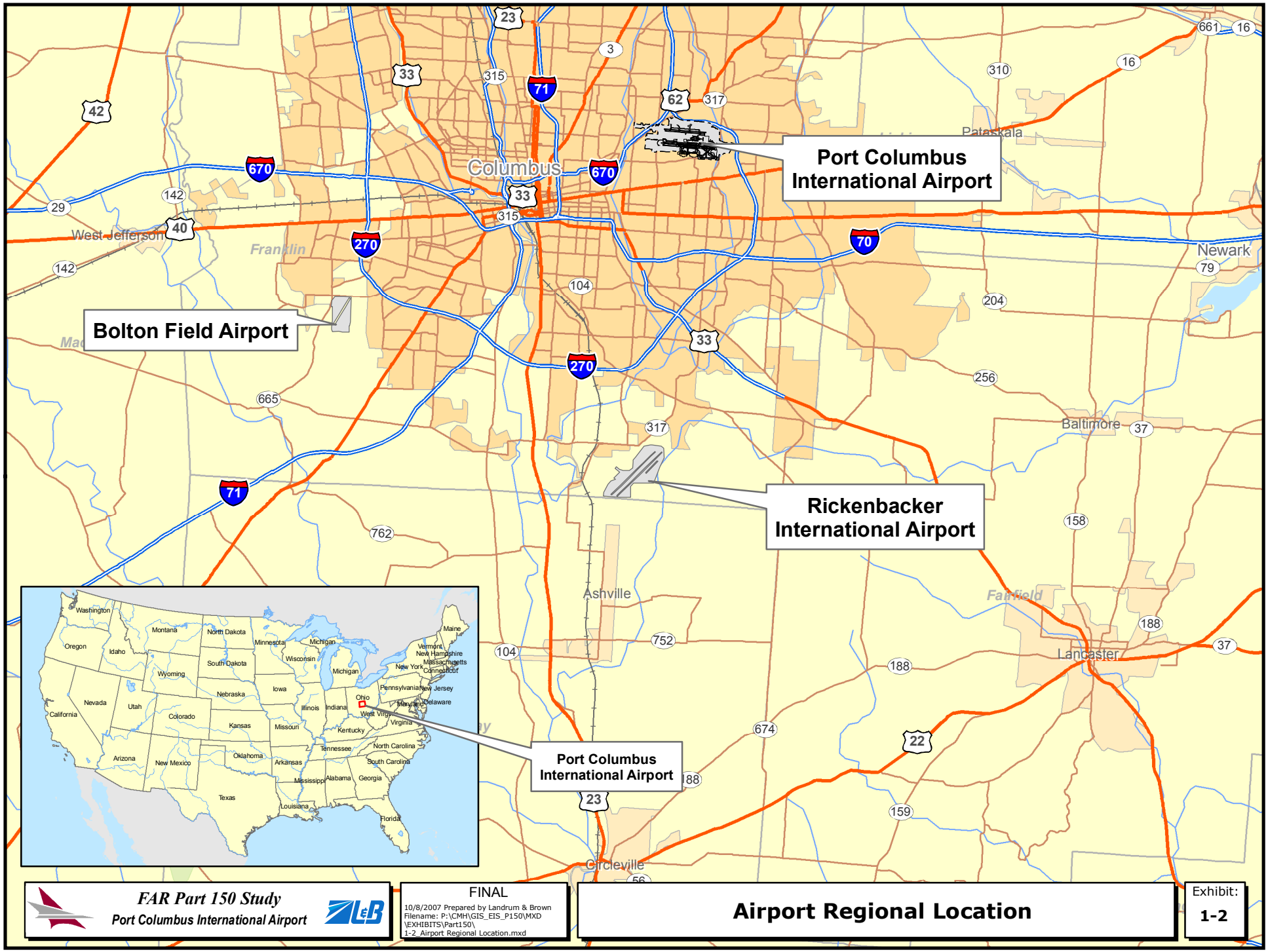
The airfield at CMH consists of two parallel, east/west runways spaced approximately 2,800 feet apart. Runway 10R/28L is the longest runway on the airfield at 10,125 feet. Runway 10L/28R is 8,000 feet in length.

1.4.4 AIRPORT OPERATORS AND FACILITIES

As of May 2007, CMH was served by the following commercial airline operators:

- Air Canada Regional - Jazz
- American Airlines / American Eagle
- Continental Airlines / Continental Express
- Delta Air Lines / Delta Connection
- JetBlue Airways
- Midwest Express / Skyway
- Northwest Airlines / Northwest Airlink
- Skybus Airlines (began operations May 22, 2007)
- Southwest Airlines
- United Airlines / United Express
- US Airways / US Airways Express
- USA 3000

[2] Columbus Regional Airport Authority, *Port Columbus Milestones*. On-line at: http://www.port-columbus.com/about/history.asp. 2006.
[3] Columbus Regional Airport Authority, *Port Columbus Milestones*. On-line at: http://www.port-columbus.com/about/history.asp. 2006.



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1-2 Airport Regional Location.mxd

Airport Regional Location

Exhibit:
1-2

1.4.4.1 Terminal Facilities

The Passenger Terminal at CMH includes 38 total gates separated in three concourses. Concourse A, the South Concourse, has seven gates. Concourse B has 20 gates. Concourse C, the North Concourse, has 11 gates.[4]

1.4.4.2 Airside Facilities

CMH can be divided into three distinct areas – north airfield, midfield, and south airfield. The north airfield consists of airfield maintenance facilities, NetJets, and Nationwide hangars. Various hotels and restaurants, surface parking lots, the ATCT, and the Terminal are located along International Gateway, the main road leading into the airport. The original Terminal building is located in the southeast corner of the airfield. This building is currently on the National Register of Historic Places. The Columbus International Air Center is also located south of the airfield along 5th Avenue. All of the airport facilities at CMH are shown on **Exhibit 1-3, *Existing Airport Layout***.

1.4.5 FIXED-BASE OPERATORS (FBOs)

There are two fixed-based operators (FBOs), Lane Aviation and Million Air, that provide aircraft services such as fueling services, ramp parking, hangar parking/storage, parts, and maintenance for general aviation aircraft at CMH.

1.4.6 BASED AIRCRAFT

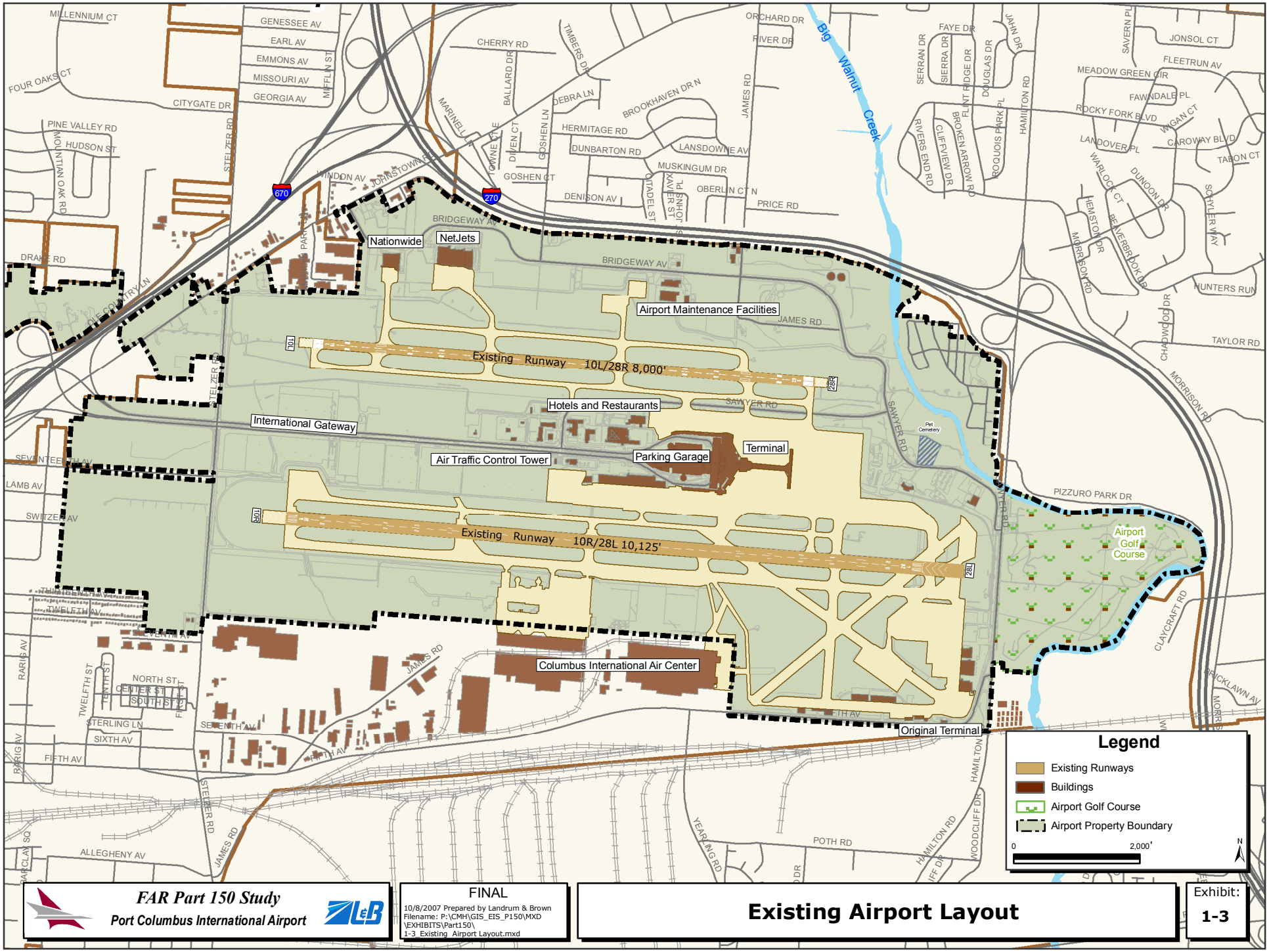
Table 1-1 provides the number of general aviation aircraft based at CMH by aircraft type. A total of 93 aircraft are based at the airport.

Table 1-1
BASED AIRCRAFT
Port Columbus International Airport

AIRCRAFT TYPE	NUMBER
Single engine airplanes	43
Multi engine airplanes	15
Jet airplanes	34
Helicopters	1
Total aircraft based on the field	**93**

Source: www.airnav.com. Airport information published as of May 10, 2007.

[4] Columbus Regional Airport Authority. *Port Columbus Maps,* On-line at: http://www.port-columbus.com/maps/. 2006.



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1-3 Existing Airport Layout.mxd

Existing Airport Layout

Exhibit:
1-3

1.4.7 ANNUAL OPERATIONS

The number of annual operations at CMH for the Existing (2006) Baseline period was approximately 197,000, which results in 540 average-annual day operations. The number of annual operations at CMH was based on ATCT records, airport landing fee reports, and discussions with operators. **Table 1-2** shows a breakdown of the Existing (2006) average daily operations by primary user group. For a detailed breakdown of the annual operations, refer to Appendix C, *Noise Modeling Methodology*.

Table 1-2
AVERAGE DAILY AIRCRAFT OPERATIONS BY USER GROUP
EXISTING (2006) BASELINE CONDITIONS
Port Columbus International Airport

Aircraft Category	Total	Percent
Large Jet	116	21.5%
Commuter Jet	228	42.2%
Commuter Prop	32	5.9%
General Aviation Jet	80	14.8%
General Aviation Prop	84	15.6%
Total	**540**	**100.0%**

Source: Landrum & Brown, 2007, FAA Tower Counts, Official Airline Guide (OAG), and Landing Fee Reports.

CHAPTER TWO
AFFECTED ENVIRONMENT

Airports and aircraft operations generally have direct benefits and impacts on surrounding communities as aviation activity is inherently intertwined with its neighbors. This includes both positive and negative impacts. Identifying and evaluating land uses surrounding an airport is an important step in quantifying potential impacts through the Part 150 process. This evaluation identifies the residential and other noise-sensitive land uses around the Port Columbus International Airport (CMH). A discussion of the land use mapping methodology and zoning information is provided in Appendix D, *Land Use Methodology*.

2.1 AIRPORT LOCATION

CMH is located on the eastern edge of the City of Columbus, to the north of the cities of Bexley and Whitehall and west of the City of Gahanna and Jefferson Township. These jurisdictions generally share both the benefits and the potentially negative impacts of airport operations at CMH, and therefore, are the subject of the land use evaluation in this study.

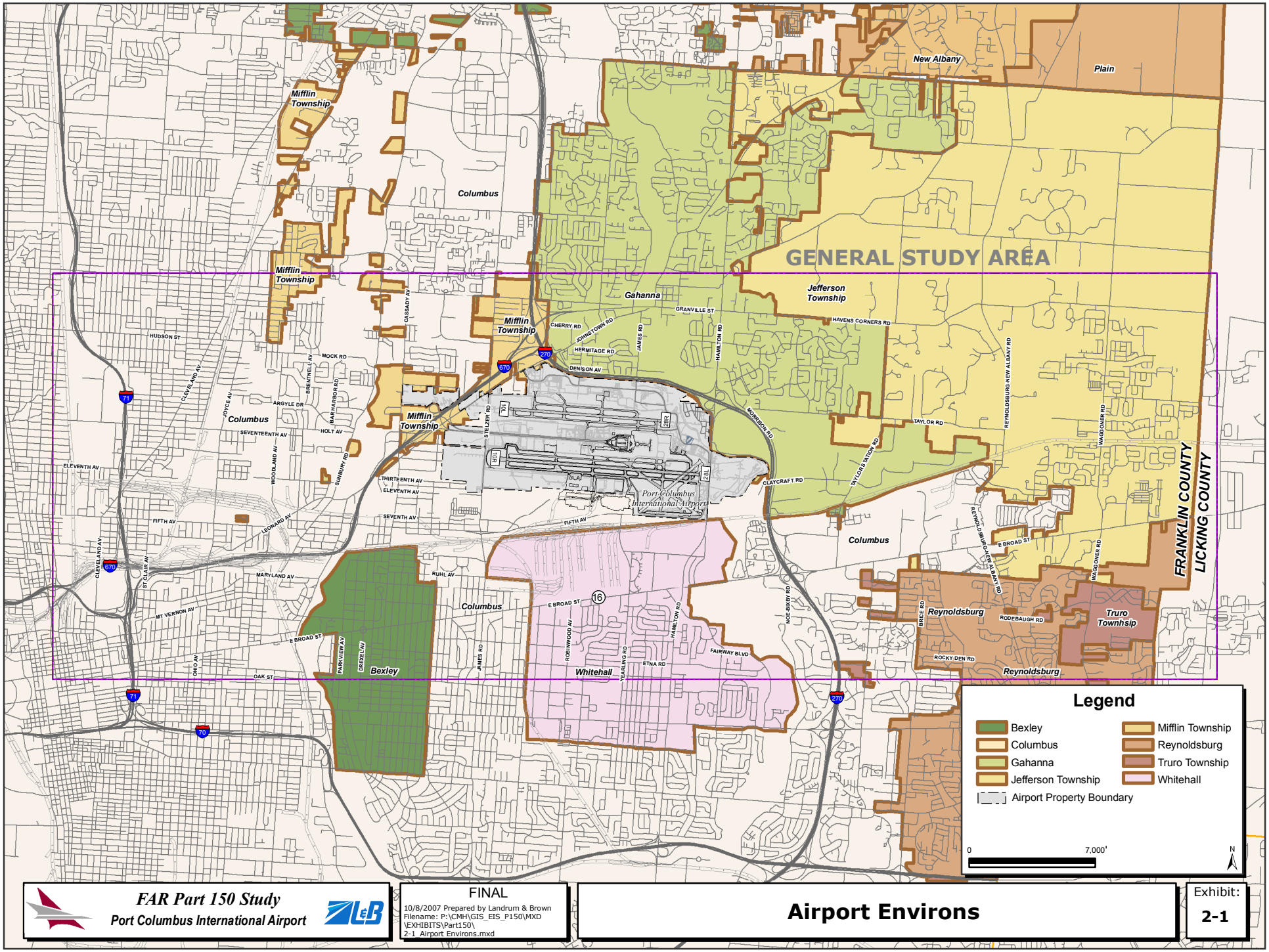
2.1.1 COLUMBUS REGIONAL AIRPORT AUTHORITY

CMH is operated by the Columbus Regional Airport Authority (CRAA), which sets the policies under which the airport is operated. The CRAA is an independent governmental entity responsible for the operation of CMH as well as Rickenbacker International Airport (LCK) and Bolton Field Airport (TZR). The creation of the CRAA was a result of a merger between the Columbus Municipal Airport Authority and the Rickenbacker Port Authority (RPA) on January 1, 2003.

A Board of Directors is the governing body of the CRAA and is composed of nine business and community leaders. The Mayor of the City of Columbus appoints four members of the Board, the Franklin County Board of Commissioners appoints four members, and one member is appointed jointly by the Mayor and the Franklin County Board of Commissioners. All Board members serve four-year staggered terms.

2.1.2 AIRPORT ENVIRONS

The airport environs refers to the regional area that may experience broader effects from the noise of aircraft operations. The airport environs for CMH is shown in **Exhibit 2-1**, and depicts the area of eastern Franklin County, western Licking County, and northwestern Fairfield County, Ohio as well as the jurisdictions contained within. The map includes jurisdictional boundaries, local roads and major highways, the airport property line, and significant geographical features. The airport environs does not follow geographic boundaries, but rather encompasses an area approximately 14 by 9 miles (126 square miles). The area extends approximately four miles to the north and south of the airport, and six miles to the east and west.



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Airport Environs

Exhibit: 2-1

The area is of adequate size to depict flight tracks and the jurisdictional boundaries used in this study.

The airport environs map extends to the Village of New Albany to the north, Pataskala to the east, I-70 to the south, and downtown Columbus to the west. The jurisdictions in the airport environs include Fairfield, Franklin, and Licking counties; Jefferson, Mifflin, and Truro townships; the cities of Bexley, Columbus, Gahanna, Reynoldsburg, and Whitehall; and the Village of New Albany in Franklin County; Etna and Lima townships and the City of Pataskala in Licking County; and Violet Township in Fairfield County.

2.1.3 GENERAL STUDY AREA (GSA)

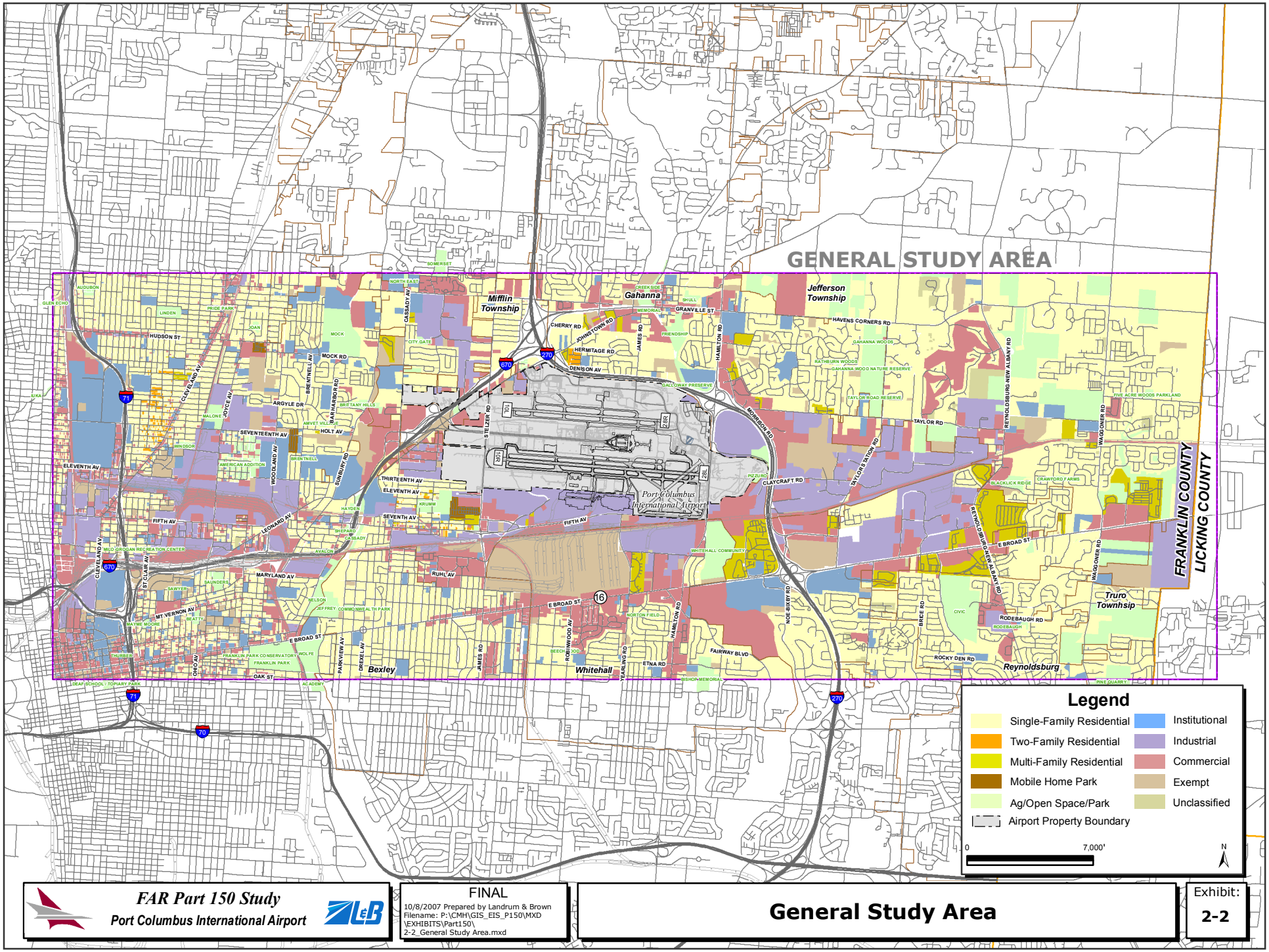
The General Study Area (GSA) is defined as the area that experiences direct overflights of aircraft at lower altitudes. The GSA was determined by examining the boundaries of previous 65 Day-Night Average Sound Level (DNL) noise exposure contours (the FAA-defined threshold for significant noise impacts), and by reviewing flight tracks of aircraft operating in the airport vicinity and/or under the control of the CMH Air Traffic Control Tower (ATCT). The GSA, shown in **Exhibit 2-2**, is the map used to show existing and future noise contours, as well as noise abatement alternatives in this document.

To the north, the GSA extends past Granville Road in Gahanna and to Agler Road in Columbus. To the east, the GSA extends to Franklin/Licking County border. To the south, the GSA extends past East Broad Street/State Route 16, almost to US Route 40, and to the west, the GSA extends to I-71, north of downtown Columbus.

2.1.4 EXISTING LAND USES IN THE GENERAL STUDY AREA

Land uses in the GSA were identified, mapped, and categorized in terms of the general land use classifications presented in Federal Aviation Regulations (FAR) Part 150, which includes residential (single and multi-family), commercial, public/institutional, and agriculture/open space. These uses were identified based on each county's Geographic Information System (GIS) database (where available), previous Part 150 studies, additional land use surveys provided by the CRAA or local jurisdictions, and was supplemented as necessary by field verification. Appendix D, *Land Use Methodology*, provides additional detailed information regarding the classification and identification of land uses. **Exhibit 2-3**, depicts the existing land uses within the GSA.

The area for which existing land uses were identified involves two levels of delineation: 1) the area directly adjacent to the airport and the areas directly in line with the east/west orientation of the runways that may be affected by specific localized impacts of noise abatement measures; and 2) the regional area that may experience the broader incompatibilities of aircraft overflight and noise impacts. To the immediate east and within previous 65 DNL noise exposure contours, land uses are characterized by commercial/industrial areas, interspersed with low density to medium density residential areas. To the west of CMH, land uses are dominated by medium density residential.



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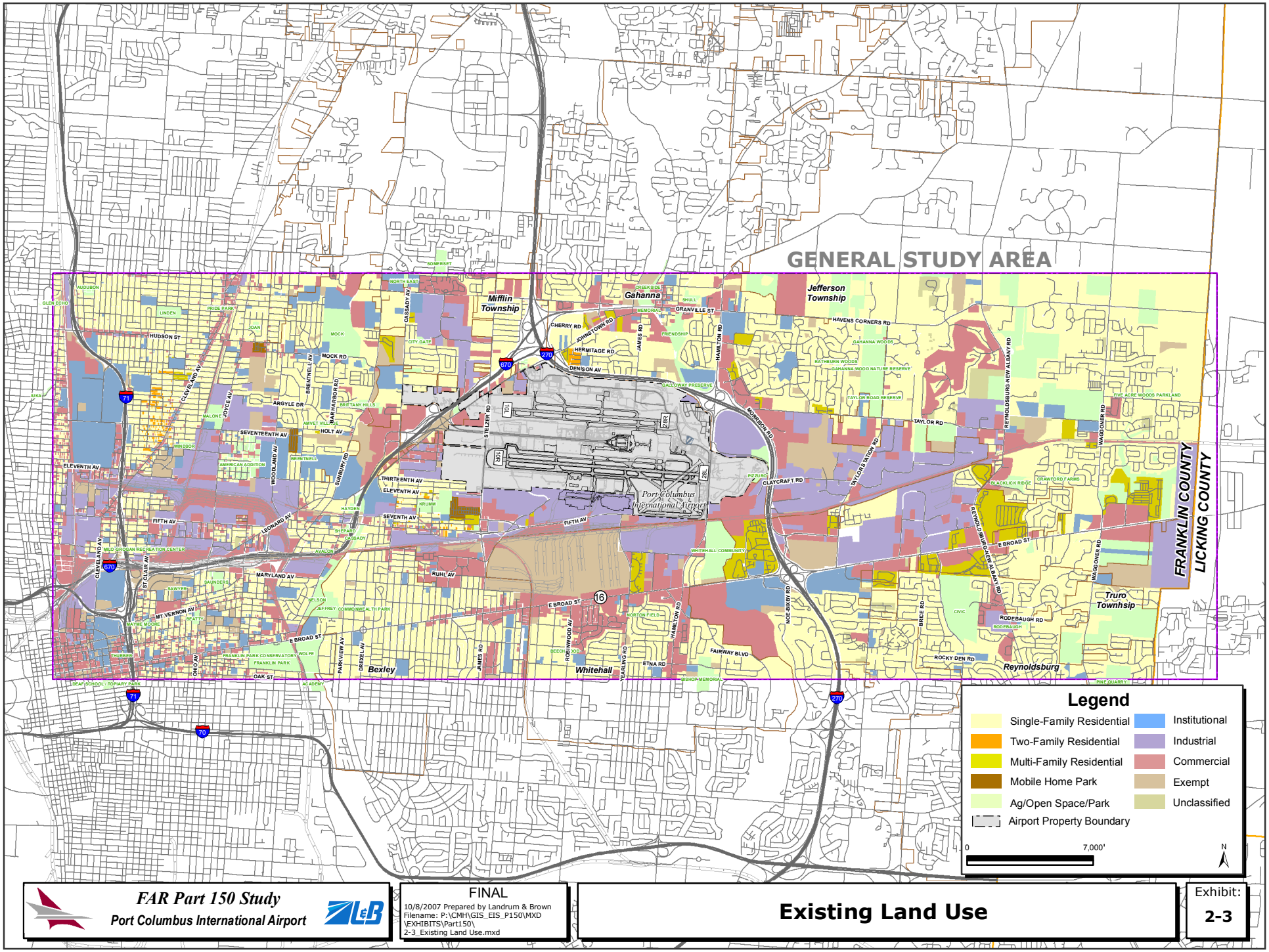
2-2_General Study Area.mxd

General Study Area

Exhibit:
2-2



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2-3_Existing Land Use.mxd

Existing Land Use

Exhibit:
2-3

2.1.5 EXISTING NOISE-SENSITIVE PUBLIC FACILITIES IN THE STUDY AREA

Land uses that could be considered incompatible with airport operations include more than just residential uses. FAR Part 150 defines certain public facilities as noise-sensitive; churches, schools, nursing homes, libraries, and hospitals. Within the GSA there are 77 schools, 232 churches, two hospitals, and five libraries as shown on **Exhibit 2-4**. In Appendix D, *Land Use Methodology*, Table D-1 discusses the methodology for collecting and organizing the noise-sensitive facility data and provides a list of all facilities.

2.1.6 EXISTING HISTORIC SITES

Within the GSA, there are five historically significant structures. One is located on airport property, the Old CMH ATCT. The other four include Air Force Plant 85 and associated facilities, Valley Dale Ballroom, the Elam Drake Residence and a house at 1388 Sunbury Road. Historic sites are shown on **Exhibit 2-5, *Historic Resources*** and listed in **Table 2-1**.

Air Force Plant 85 facilities built between 1940 and 1941 were determined to be eligible for listing on the National Register of Historic Places for their significance in the areas of history and architecture. The Old CMH ATCT was built in 1929 and was listed on the register in 1979 for its significance in the areas of architecture and transportation. In 1982, the Valley Dale Ballroom was listed on the register for its significance in the area of performing arts. The building constructed in 1925, was a popular performance venue during the Big Band era and hosted national radio broadcasts of performances. The Elam Drake Residence was constructed circa 1856 and listed on the register in 1978. The property, consisting of a house, barn, and outbuilding, is significant as an example of a typical farm grouping of the nineteenth century.

Table 2-1
HISTORIC SITES WITHIN GENERAL STUDY AREA
Port Columbus Airport

Map ID	Name
HP-1	Air Force Plant 85 and Associated Facilities
HP-2	Old Port Columbus Airport Control Tower
HP-3	Valley Dale Ballroom
HP-4	Elam Drake Residence
HP-5	A House at 1388 Sunbury Road

Source: Ohio Historic Preservation Office, http://www.ohiohistory.org/resource/histpres/, 2007.

GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Bexley

Whitehall

Reynoldsburg

Truro Townhsip

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

Legend

- Church
- School
- Library
- Hospital
- Airport Property Boundary

0 4,000 N

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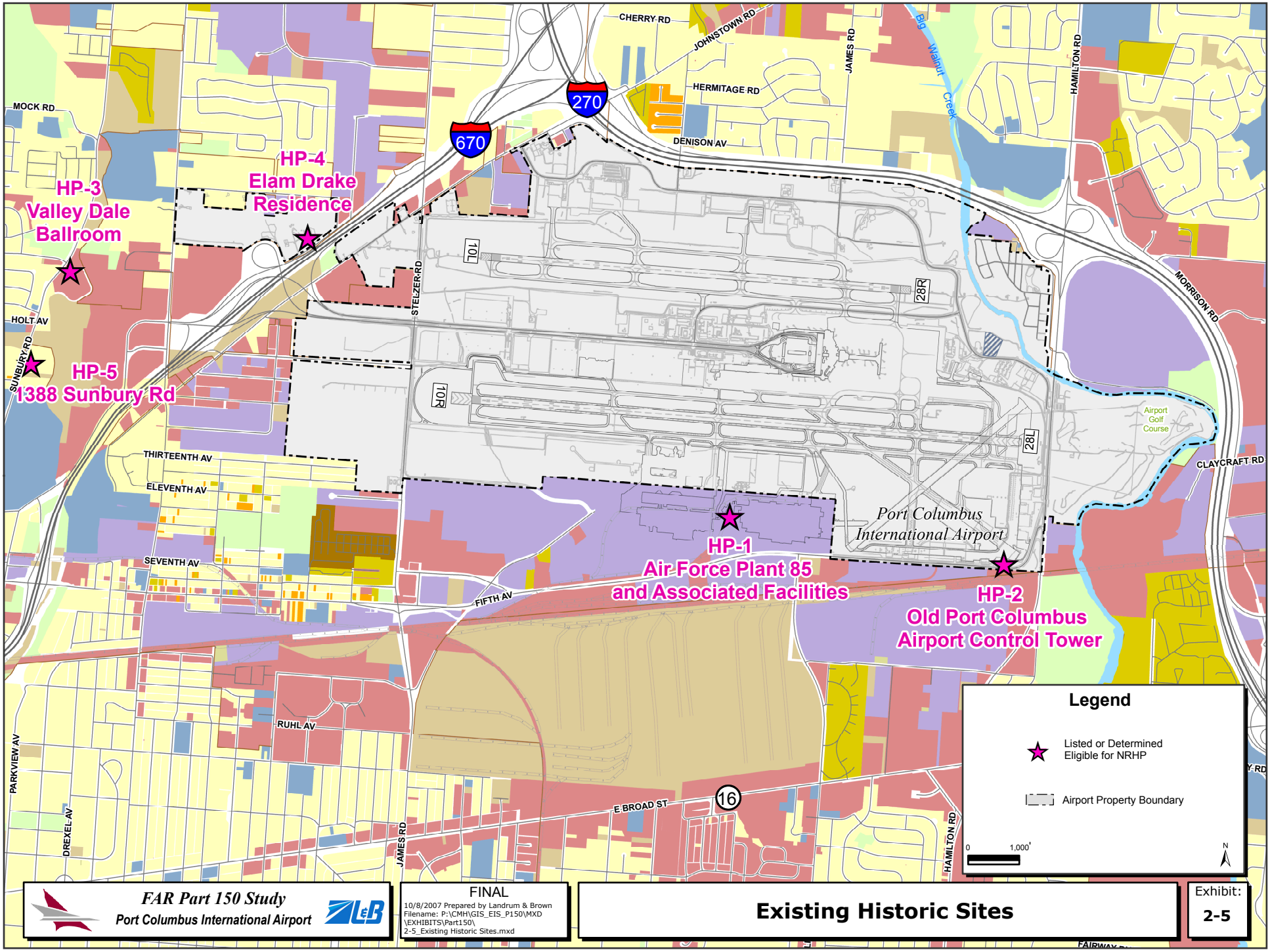
Existing Noise-Sensitive Public Facilities

Exhibit: **2-4**


HP-3
Valley Dale
Ballroom
HP-4
Elam Drake
Residence
HP-5
1388 Sunbury Rd
HP-1
Air Force Plant 85
and Associated Facilities
HP-2
Old Port Columbus
Airport Control Tower
Port Columbus
International Airport
CHERRY RD
JOHNSTOWN RD
HERMITAGE RD
DENISON AV
JAMES RD
Big Walnut Creek
HAMILTON RD
MOCK RD
270
670
MORRISON RD
HOLT AV
SUNBURY RD
STELZER RD
10L
10R
28R
28L
Airport Golf Course
CLAYCRAFT RD
THIRTEENTH AV
ELEVENTH AV
SEVENTH AV
FIFTH AV
RUHL AV
PARKVIEW AV
DREXEL AV
JAMES RD
E BROAD ST
16
HAMILTON RD
Legend
Listed or Determined Eligible for NRHP
Airport Property Boundary
0
1,000'
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Existing Historic Sites
Exhibit:
2-5

2.2 EXISTING LAND USE GUIDELINES/PLANNING DOCUMENTS

Neither the CRAA nor the Federal government has the authority to implement or enforce local land use policies and regulations. That responsibility falls to the local jurisdictions, which could include the county, city, or township. The Part 150 process includes a review of local comprehensive planning efforts, land use regulations, zoning ordinances, building codes, and subdivision regulations.

In most cities and counties, the chief land use regulatory document is the zoning ordinance, which regulates the types of uses, building height, bulk, and density permitted in various locations. Subdivision regulations are another important land use tool, regulating the platting of land. Local communities also regulate development through building codes and, in some cases, enforce noise regulations. The local capital improvements program, a schedule for constructing and improving public facilities such as streets, sewers, and water lines, is another important policy document that could influence development; although, on its own it does not involve regulation.

The Part 150 planning process does not propose, recommend, or fund the mitigation of future proposed development. It does, however, identify areas of potential future noise exposure for use by local planners in the development of comprehensive planning documents and land use policies. By preparing a comprehensive plan and setting land use policies, a jurisdiction or community can develop land appropriately and according to a locally accepted, approved plan. It is important that these planning efforts identify the likely development potential of land near the airport, within the published airport noise contours, or under existing or proposed future aircraft flight tracks. The local land use planning policies provide the airport sponsor with a description of the types of future development that should occur in areas not yet developed or to be redeveloped within the community.

Within the CMH GSA, six municipalities (Bexley, Columbus, Gahanna, Pataskala, Reynoldsburg, and Whitehall), Franklin County, and Jefferson Township share the responsibility for land use regulations. Summaries of the existing and future land use and zoning plans for these jurisdictions are included in Section 2.2.1 through Section 2.2.8 of this chapter.

2.2.1 AIRPORT ENVIRONS OVERLAY ZONE

The previous Part 150 Study recommended the establishment of and Airport Environ Overlay (AEO) to assist in controlling residential development within the higher noise levels resulting from airport activity. Two jurisdictions within the GSA, the City of Columbus and Franklin County, have adopted the AEO to limit development within areas that are significantly impacted by airport noise. The local ordinances are based on model regulations developed by the Mid Ohio Regional Planning Commission (MORPC) in 1991. The City of Columbus adopted the AEO in 1994 and Franklin County adopted a similar ordinance in 1996. Both ordinances added an overlay zone that established additional development standards and criteria for property within areas that are significantly impacted by noise. The AEO ordinances establish subdistricts according to the 65+, 70+, and 75+ DNL as

indicated by the most recently published NEM. Within these subdistricts, land use is regulated to prevent non-compatible development that is incompatible with high levels of aircraft noise. The overlay zone boundary changes accordingly to updates to the NEM and is therefore not static. Specific regulations from each jurisdiction's zoning ordinance regarding the application of the AEO are discussed in the following sections.

2.2.1.1 Franklin County

Franklin County administers planning and zoning within the unincorporated areas excluding Jefferson Township. Franklin County administers planning and zoning on behalf of Mifflin and Truro Townships, both of which are within the General Study Area. Franklin County encompasses approximately 540 square miles, of which the unincorporated areas of Mifflin Township comprise approximately 1.4 square miles and unincorporated Truro Township comprises just over 1 square mile. The county has a total estimated population of over 1,090,000 in 2005, including 36,000 and 27,000 in Mifflin and Truro Townships, respectively.[1] The county has adopted an Airport Environs Overlay zone. **Table 2-2** shows the land use development standards for Franklin County within the Airport Environs Overlay District.

2.2.1.2 City of Bexley

The City of Bexley is located to the south of CMH and encompasses approximately 2.4 square miles. It had an estimated population of over 12,300 in 2005 according to the U.S. Census Bureau.[2] The City updated its Master Plan in August 2002. It contains no land use provisions regarding compatibility with airport operations.

2.2.1.3 City of Columbus

The City of Columbus is located to the north, south, east, and west of CMH and encompasses approximately 225.9 square miles. It had an estimated population of over 730,000 in 2005 according to the U.S. Census Bureau.[3] Development within the City of Columbus is guided by its Comprehensive Plan, adopted in December of 1993, and various neighborhood plans. Land use regulations are enforced through the City Zoning Code.

The City of Columbus has established an Airport Environs Overlay (AEO) District to "…protect the public health, safety, and welfare by regulating development and land use within airport environs and airport hazard areas; to ensure compatibility between among existing airports, and any future airport and surrounding land uses; and to protect said airports from incompatible encroachment." The AEO is divided into three subdistricts (A,B,C), which represent different levels of noise impact and within which incompatible development is restricted. Subdistrict A includes the 65 DNL to 70 DNL noise exposure area. Subdistrict B includes the

[1] US Census Bureau, Annual Population Estimates, 2006
[2] U.S. Census Bureau, *Annual Population Estimates*, 2006.
[3] U.S. Census Bureau, *Annual Population Estimates*, 2006.

70 DNL to 75 DNL noise exposure area. Subdistrict C includes the 75 DNL and greater noise exposure area.[4] **Table 2-3** shows the land use development standards within the AEO District.

Table 2-2
FRANKLIN COUNTY AIRPORT ENVIRONS OVERLAY DISTRICT
LAND USE COMPATIBILITY STANDARDS
Port Columbus International Airport

Land Use (provided it is permitted in the district overlaid)	**Subdistrict A**	**Subdistrict B**	**Subdistrict C**
	65 DNL	**70 DNL**	**75 DNL**
Residential			
Single, Two & Multi	Y(1)	N	N
Manufactured housing	N	N	N
Hotels, Motels	Y(2)	Y(3)	N
All other residential	Y(1)	Y(1)	N
Commercial			
Retail	Y	Y(2)	Y(3)
Business services	Y	Y(2)	Y(3)
Personal services	Y	Y(2)	N
Professional services	Y	Y(2)	Y(3)
Offices	Y	Y(2)	N
All other commercial	Y	Y(2)	Y(3)
Manufacturing			
Manufacturing, warehousing, distribution	Y	Y(2)	Y(3)
Parking facilities	Y	Y(2)	Y(3)
All other manufacturing	Y	Y(2)	Y(3)
Institutional			
Hospitals, Nursing	Y(2)	Y(3)	N
Government facilities	Y	Y(2)	Y(3)
All other public/semi public	Y	Y	Y
Other medical facilities	Y	Y(2)	Y(3)
Educational facilities	Y(2)	Y(3)	N
Public assembly, churches	Y(2)	Y(3)	N
Parks, recreation	Y	Y(2)	Y(3)
All other uses	Y	Y	Y

Y - Land use is permitted

N - Land use is prohibited

(1) Interior noise level reduction of 25dB required in District A, 30 dB in District B

(2) Interior noise level reduction of 25dB is required for all areas where the public is received, office areas, noise sensitive areas, or where normal noise level is low.

(3) Interior noise level reduction of 30dB is required for all areas where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

[4] City of Columbus Code, Title 33, Zoning Code, Chapter 3384, Airport Environs Overlay.

Table 2-3
CITY OF COLUMBUS AIRPORT ENVIRONS OVERLAY DISTRICT
LAND USE COMPATIBILITY STANDARDS
Port Columbus International Airport

Land Use	Subdistrict A	Subdistrict B	Subdistrict C
	65 DNL	70 DNL	75 DNL
Residential			
Single-, Two-, Three- or Four-Family	Y	N	N
Apartment	Y	N	N
Manufactured Housing, Mobile Homes	N	N	N
Hotels, Motels	Y	Y	N
Church, House of Worship	Y	Y	N
Public Park, Noncommercial Recreation	Y	Y	Y
All Other Residential	Y	Y	N
Commercial			
Retail	Y	Y	Y
Business Services	Y	Y	Y
Personal Services	Y	Y	N
Professional Services	Y	Y	Y
Offices	Y	Y	N
All Other Commercial	Y	Y	Y
Manufacturing			
Manufacturing, Warehousing, Distribution	Y	Y	Y
Parking Facilities	Y	Y	Y
All Other Manufacturing	Y	Y	Y
Institutional			
Hospitals, Nursing Homes	Y	Y	N
Other Medical Facilities	Y	Y	Y
Educational Facilities	Y	Y	N
Public Assembly	Y	Y	N
Government Facilities	Y	Y	Y
All Other Public and Semi-Public	Y	Y	Y
Industrialized Unit	N	N	N
All Other Uses	Y	Y	Y

Y = Land Use is Permitted

N = Land Use is Prohibited

Source: City of Columbus Code, Title 33, Zoning Code, Chapter 3384, Airport Environs Overlay

2.2.1.4 City of Gahanna

The City of Gahanna is located to the north, northeast, and east of CMH and encompasses approximately 12.5 square miles. According to 2005 Census estimates Gahanna had a population of over 33,000 people.[5] The city updated its Land Use Plan in 2002. The Plan contains no land use management recommendations regarding compatibility with airport operations. However, the City of Gahanna and the CRAA have worked together on land use compatibility issues for the areas immediately east of the airport.

2.2.1.5 City of Pataskala

The City of Pataskala is located approximately five miles east of CMH at the edge of the GSA and encompasses over 28.5 square miles. It had an estimated population of over 12,600 people in 2005.[6] The city's Comprehensive Master Plan was developed in 2002. It contains no land use management recommendations regarding compatibility with airport operations.

2.2.1.6 City of Reynoldsburg

The City of Reynoldsburg is located approximately 2.5 miles southeast of CMH and encompasses over 10.5 square miles. The city had an estimated population of over 33,000 in 2005.[7] The city last updated its Comprehensive Plan in February, 1968. It contains no recommendations regarding compatibility between land use and airport operations.

2.2.1.7 City of Whitehall

The City of Whitehall is located to the south of CMH and encompasses approximately 5.2 square miles. It had an estimated population of just over 18,000 people in 2005 according to the U.S. Census Bureau.[8] The city currently has no plans that address land use and airport noise compatibility.

2.2.1.8 Jefferson Township

Jefferson Township is located to the northeast of CMH and encompasses approximately 17 square miles. The township had an estimated population of over 5,200 in 2005.[9] Jefferson Township adopted its Comprehensive Plan in September of 1996. The Plan recommends land use guidelines that within the "…airport noise zone and other appropriate areas, promote non-residential uses with performance standards that ensure the desired character is preserved."[10]

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5 U.S. Census Bureau, *Annual Population Estimates*, 2006
6 U.S. Census Bureau, *Annual Population Estimates*, 2006
7 U.S. Census Bureau, *Annual Population Estimates*, 2006
8 U.S. Census Bureau, *Annual Population Estimates*, 2006
9 U.S. Census Bureau, *Annual Population Estimates*, 2006
10 Jefferson Township Comprehensive Plan, adopted September 4, 1996.

2.3 GROWTH RISK/SIGNIFICANT DEVELOPMENT TRENDS

The Central Ohio Region[11] is currently experiencing rapid growth that began nearly 20 years ago. Between 1990 and 2000, the population of the Central Ohio Region grew by 15 percent, compared to a growth rate of five percent statewide.[12] The population of Franklin County is projected to grow by an additional 26 percent between 2000 and 2030. Employment in Franklin County is also expected to grow by 43 percent between 2000 and 2030. The jurisdictions within the GSA are expected to experience population growth at 20 percent and employment growth at nearly 30 percent during the same timeframe. This growth is expected to be highest in the jurisdictions of New Albany and Gahanna, to the north of CMH.[13] **Table 2-4, *Population Estimates, 2000 to 2030***, and **Table 2-5, *Employment Estimates, 2000 to 2030***, show these estimates for each jurisdiction within the GSA.

Table 2-4
POPULATION ESTIMATES, 2000 TO 2030
Port Columbus International Airport

PLACE	POPULATION			PERCENT GROWTH, 2000-2030
	2000	2005	2030 (projected)	
Gahanna	33,317	34,675	38,843	16.6%
Reynoldsburg	27,460	29,107	32,275	17.5%
Columbus	693,183	767,274	831,458	19.9%
Whitehall	17,354	17,365	16,955	-2.3%
Bexley	12,152	12,205	11,759	-3.2%
New Albany	4,778	6,827	14,588	205.3%
Mifflin Township	308	315	722	134.4%
General Study Area Total	***788,552***	***867,768***	***946,600***	**20.0%**
Franklin County Total	**1,046,127**	**1,144,479**	**1,316,365**	**25.8%**

Source: 2030 *Population, Household and Employment Forecast*, Mid-Ohio Regional Planning Commission. April 2006.

[11] The "Central Ohio Region" is defined by the Mid-Ohio Regional Planning Commission as the area contained in the seven counties of Delaware, Fairfield, Franklin, Licking, Madison, Pickaway, and Union. *Regional Fact Book, Regional Growth Strategy, Central Ohio*, Mid-Ohio Regional Planning Commission. August 2004.

[12] U.S. Census Bureau, 1990 and 2000 Population Counts.

[13] 2030 *Population, Household and Employment Forecast*, Mid-Ohio Regional Planning Commission. April 2006.

Table 2-5
EMPLOYMENT ESTIMATES, 2000 TO 2030
Port Columbus International Airport

PLACE	EMPLOYMENT			PERCENT GROWTH, 2000-2030
	2000	2005	2030 (projected)	
Gahanna	9,492	12,641	15,720	65.6%
Reynoldsburg	10,130	10,554	11,769	16.2%
Columbus	492,671	513,638	622,471	26.3%
Whitehall	14,109	13,759	14,275	1.2%
Bexley	3,291	3,478	4,013	21.9%
New Albany	1,144	4,594	20,711	1710.4%
Mifflin Township	610	600	634	3.9%
General Study Area Total	***531,447***	***559,264***	***689,593***	**29.8%**
Franklin County Total	**689,786**	**735,186**	**984,261**	**42.7%**

Source: 2030 *Population, Household and Employment Forecast*, Mid-Ohio Regional Planning Commission. April 2006.

Land use in the Central Ohio Region is changing in response to the growth trend. The amount of agricultural land decreased by ten percent from the early 1980s through the late 1990s. In the Central Ohio region, Franklin County has experienced the largest share of population growth over the past 20 years. However, its share of growth is projected to decline in the coming years as the surrounding counties attract more people. Forty percent of new houses are being built outside of Franklin County in low density residential areas at the outer edge of existing urbanized areas.

Predominant land uses in the areas surrounding CMH are medium to high density residential and commercial/industrial. Future plans for the municipalities surrounding CMH include the preservation of existing residential neighborhoods and the development of new neighborhoods and associated commercial/industrial services. Future residential growth near CMH is inevitable and, if not specifically restricted through zoning, could occur in areas that receive noise in excess of 65 DNL. To the west of the airport new residential development is a combination of infill within existing neighborhoods and some limited subdivision development. Examples of the new subdivisions can be found northwest of the airport in the City of Columbus along Sunbury Road. East of the airport, particularly in Jefferson Township, large residential subdivisions are being constructed and others are planned. The closest large residential subdivision to CMH is being constructed on Taylor Station Road with plans for 485 new homes to be built. This subdivision is located just outside of the Future (2012) Baseline 65 DNL noise exposure contour.

CHAPTER THREE
BASELINE NOISE EXPOSURE

3.1 OVERVIEW

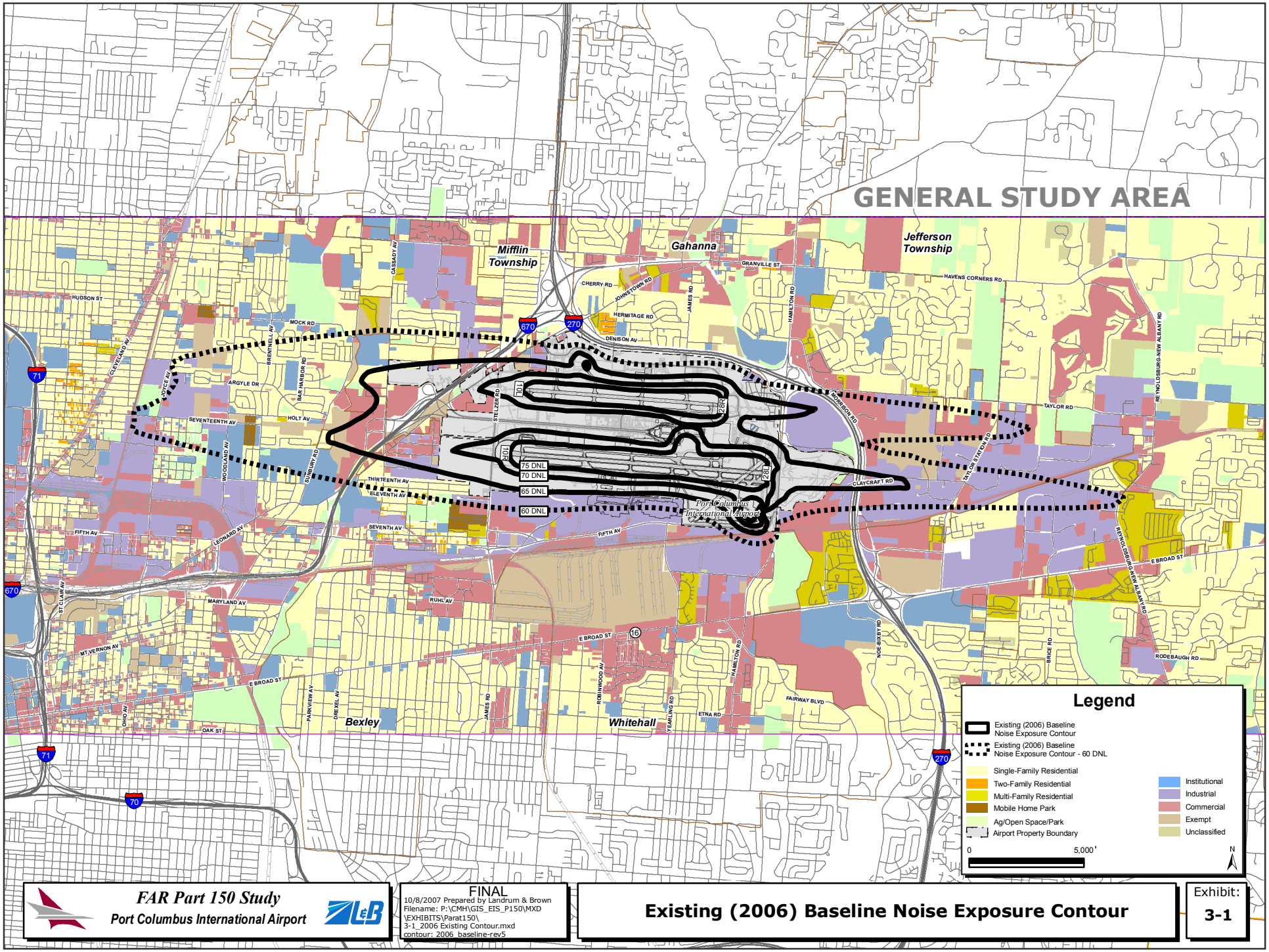
The discussion of the affected environment for noise and compatible land uses describes the existing noise exposure on communities surrounding Port Columbus International Airport (CMH). The noise analysis presents the noise exposure for the existing conditions base year – 2006. Aircraft-related noise exposure is defined through noise contours prepared using the Federal Aviation Administration (FAA) Integrated Noise Model (INM). This noise exposure is presented using the Day-Night Average Sound Level (DNL) metric.

In addition to the Existing (2006) Baseline Noise conditions, this chapter provides information about the current and potential noise levels in 2012 if no action is taken to change the noise exposure pattern through abatement. The noise patterns are presented on exhibits, and the numbers of persons and housing units that fall within them are quantified. The 2012 condition does include the proposed relocation of Runway 10R/28L, 702 feet to the south of the existing location. The relocation of Runway 10R/28L is the subject of an Environmental Impact Statement (EIS) that is being prepared by the FAA. The EIS is expected to be complete in April 2009.

An explanation of the INM and the DNL metric, along with a review of the physics of noise, noise impacts on humans, social impacts of noise, and the data required to develop noise exposure contours, is summarized in Appendix C, *Noise Methodology.* This information details the operating characteristics in use at the airport, the number of operations, and the use of flight paths to and from the airport both now and as they are expected to be in 2012.

3.2 EXISTING (2006) BASELINE NOISE CONTOUR

The number of operations, runway use, flight track, and trip length data presented in Appendix C*, Noise Modeling Methodology*, are used as input to the INM computer model for calculation of noise exposure in the airport environs. **Exhibit 3-1, *Existing (2006) Baseline Noise Exposure Contour*,** reflects the average-annual noise exposure pattern present at the airport during the existing baseline period and **Table 3-1** summarizes the area within each noise contour level. Noise contours are presented for the 60, 65, 70, and 75 DNL. The FAA uses the 65 DNL as the noise level in which noise-sensitive land uses (residences, churches, schools, libraries, and nursing homes) become significantly impacted. Below the 65 DNL, all land uses are determined to be compatible. However the Columbus Regional Airport Authority (CRAA) has chosen to show the 60 DNL because it indicates marginal noise impacts and is useful for land use planning purposes.



FAR Part 150 Study

Port Columbus International Airport

FINAL

10/8/2007 Prepared by Landrum & Brown
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\EXHIBITS\Parat150\
3-1_2006 Existing Contour.mxd
contour: 2006_baseline-rev5

Existing (2006) Baseline Noise Exposure Contour

Exhibit:
3-1

Table 3-1
AREAS WITHIN EXISTING
NOISE EXPOSURE CONTOUR (IN SQUARE MILES)
Port Columbus International Airport

CONTOUR RANGE	EXISTING (2006) BASELINE
60-65 DNL	4.3
65-70 DNL	2.1
70-75 DNL	0.7
75 + DNL	0.8
65 + DNL	3.6

Contour: 2006_Baseline-rev7

Source: Landrum & Brown, 2007.

A DNL noise contour does not represent the noise levels present on any specific day, but, represents the energy-average of all 365 days of operation during the year. Noise contour patterns extend from an airport along each extended runway centerline, reflective of the flight tracks used by all aircraft. The relative distance of a contour from the airport along each route is a function of the frequency of use of each runway end for total arrivals and departures, as well as its use at night, and the type of aircraft assigned to it.

The size and shape of the noise contours for CMH are a function of the combination of flight tracks and runway use. During the existing baseline period, the airport operated 75 percent of the time in west flow (arriving to and departing from Runways 28L/28R) and 25 percent of the time in east flow (arriving to and departing from Runways 10L/10R). As a result, the Existing (2006) Baseline noise contour is longer and wider to the west of the airport than to the east.

The south runway (Runway 10R/28L) is the most heavily used runway because it is the longer of the two runways on the airfield. For this reason the Existing (2006) Baseline noise contour extends farther out in both directions along the extended centerline of this runway as compared to the north runway.

West of the airport, the noise contour primarily reflects usage by aircraft departing to the west and to a lesser degree aircraft arriving from the west. The 65 DNL noise contour extends approximately 1.6 miles beyond the west end of Runway 10R/28L and extends approximately 1.4 miles beyond the west end of Runway 10L/28R. This area is comprised of a mix of medium-density residential, commercial, and industrial uses located in the City of Columbus and Mifflin Township. The 60 DNL noise contour extends approximately 3.2 miles beyond the west end of Runway 10R/28L and extends approximately 3.0 miles beyond the west end of Runway 10L/28R. The area between the 60 and 65 DNL is comprised of medium density residential, commercial, and industrial uses located in the City of Columbus.

To the east of the airport, the noise contour primarily reflects usage by aircraft arriving from the east and to a lesser degree aircraft departing to the east. The 65 DNL noise contour extends approximately 1.3 miles east from the end of Runway 10R/28L and extends approximately 0.8 miles east from the end of Runway 10L/28R. The area east of the airport within the 65 DNL is comprised of commercial and industrial land uses, and undeveloped land within the cities of Columbus and Gahanna. The 60 DNL noise contour extends approximately 3.0 miles beyond the east end of Runway 10R/28L and extends approximately 2.6 miles beyond Runway 10L/28R. The area between the 60 and 65 DNL is comprised of a mix of low to medium density residential, commercial, and industrial land uses and undeveloped property located in the cities of Columbus and Gahanna and Jefferson Township. The 70 and 75 DNL contours remain over airport property.

3.3 FUTURE (2012) BASELINE NOISE CONTOUR

The baseline noise exposure contour projected for 2012 is presented in **Exhibit 3-2, *Future (2012) Baseline Noise Contour*.** This projected contour assumes growth as forecasted in the *Aviation Activity Forecast, Port Columbus International Airport* (See Appendix J). This forecast was approved by the FAA on January 9, 2007. The Future (2012) Baseline noise contour is larger than the Existing (2006) Baseline noise contour due to a projected increase in the number of operations and the proposed relocation of Runway 10R/28L. **Table 3-2** provides a comparison of the areas within the Existing (2006) Baseline and Future (2012) Baseline noise contours.

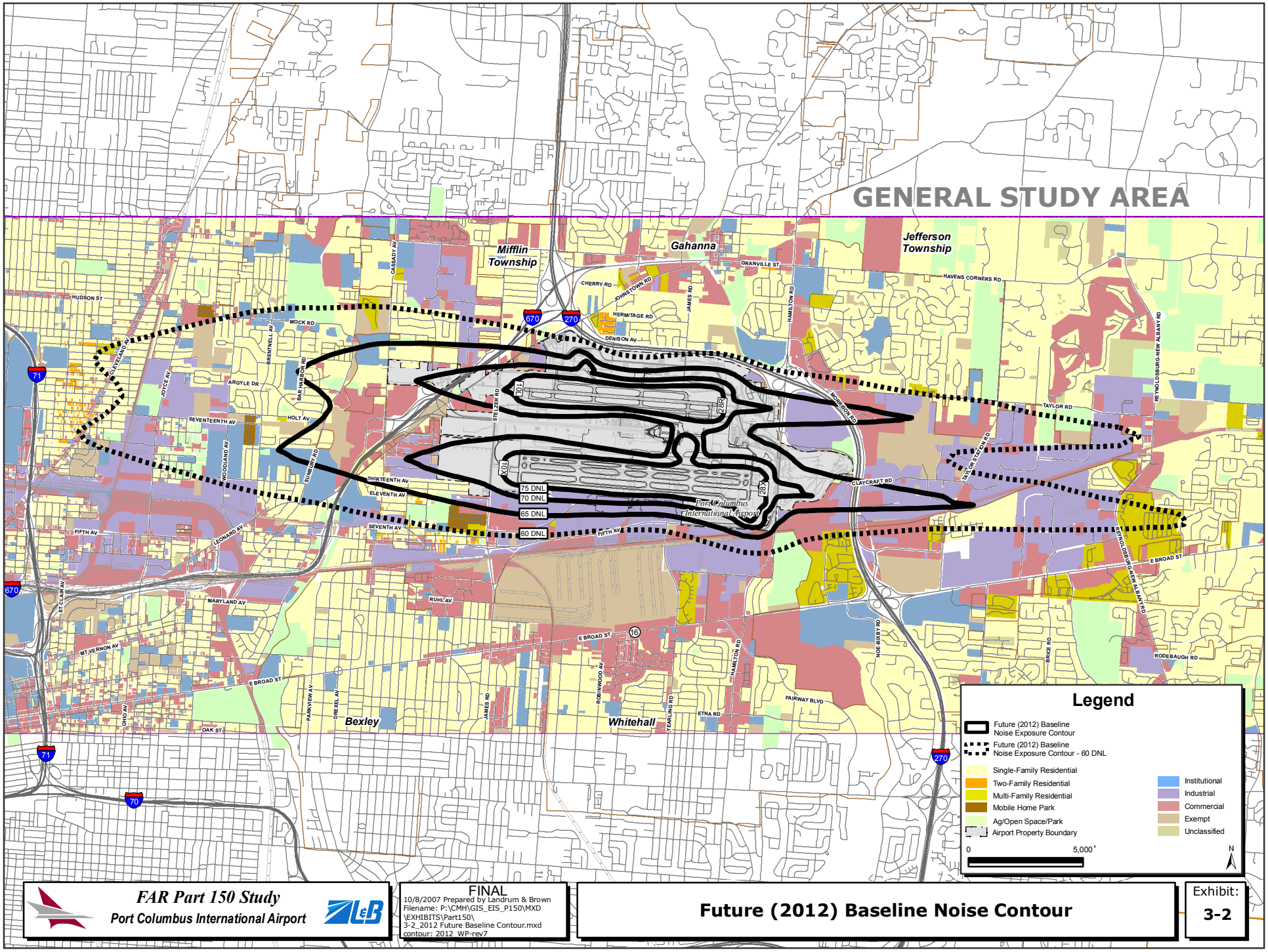
Table 3-2
COMPARISON OF AREAS WITHIN FUTURE (2012) AND EXISTING (2006) NOISE EXPOSURE CONTOUR (IN SQUARE MILES)
Port Columbus International Airport

CONTOUR RANGE	EXISTING (2006) BASELINE	FUTURE (2012) BASELINE	DIFFERENCE
60-65 DNL	4.3	6.0	1.7
65-70 DNL	2.1	3.0	0.9
70-75 DNL	0.7	1.1	0.4
75 + DNL	0.8	1.1	0.3
65 + DNL	3.6	5.2	1.6

Contour: 2006_Baseline-rev5/ 2012_WP_rev7

Source: Landrum & Brown, 2007.

For the Future (2012) Baseline conditions, operating levels are expected to increase from 540 average annual day operations to 662 average annual day operations. The proposed relocated runway would shift operations farther south. The flight paths that aircraft would use when arriving to and departing from the proposed relocated runway would shift south by approximately 702 feet. Current arrival and departure procedures would remain the same for the proposed relocated runway. However, because the location of the flight paths shift, new areas would be directly overflown.



FAR Part 150 Study

Port Columbus International Airport

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10/8/2007 Prepared by Landrum & Brown
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contour: 2012 WP-rev7

Future (2012) Baseline Noise Contour

Exhibit: **3-2**

The Future (2012) Baseline noise contour increases in size compared to the Existing (2006) Baseline noise contour due to the increase in operations projected for 2012. The Future (2012) Baseline noise contour extends farther south than the Existing (2006) Baseline noise contour due to the proposed relocation of Runway 10R/28L. The shape of the Future (2012) Baseline noise contour remains similar to the Existing (2006) noise contour because there would be no change in runway use or flight tracks, with the exception of the 702 foot shift.

3.4 BASELINE NOISE CONTOUR INCOMPATIBILITIES

Identifying and evaluating all land uses within the airport environs is necessary to quantify the number of residential and other noise-sensitive land uses that are impacted by aircraft noise. Chapter Two, Affected Environment, and Appendix D, Land Use Assessment Methodology, summarize the land use data collection process. The FAA has created land use compatibility guidelines relating types of land use to airport sound levels. These guidelines are defined in 14 CFR Part 150, Land Use Compatibility with Yearly Day-Night Average Sound Levels. The compatibility table is reproduced in Appendix A, FAA Policies, Guidance, and Regulations, of this document (see Table A-1).

These guidelines show the compatibility parameters for residential, public (schools, churches, nursing homes, hospitals, libraries), commercial, manufacturing and production, and recreational land uses. All land uses exposed to noise levels below the 65 DNL noise contour are generally considered compatible with airport operations.

Summaries of the residential population, housing units, and noise-sensitive facilities affected by noise levels exceeding 60 DNL for the Existing (2006) and Future (2012) Baseline noise contours are provided in **Table 3-3** and **Table 3-4**. A summary of the impacts for the Existing (2006) and Future (2012) Baseline is provided in **Table 3-5**.

There are 12 housing units and an estimated 30 residents located within the 65 DNL of the Existing (2006) Baseline noise contour. All 12 of those housing units have received sound insulation, and are therefore considered mitigated. There are no churches, schools, libraries, hospitals, or nursing homes located within the 65 DNL of the Existing (2006) Baseline noise contour. There are approximately 2,640 housing units; an estimated 6,510 residents; 18 churches; and two schools within the 60-65 DNL of the Existing (2006) Baseline noise contour.

Approximately 700 homes and an estimated 1,729 residents will be located within the 65 DNL of the Future (2012) Baseline noise contour. Of those 700 housing units, 642 are within the City of Columbus and 58 are within Mifflin Township. A total of 337 have received sound insulation (301 in Columbus and 36 in Mifflin Township). Of the remaining 363 unmitigated housing units, 98 were offered sound insulation but chose not to participate in the sound insulation program and 265 are newly impacted.

There are no churches, schools, libraries, hospitals, or nursing homes located within the 65 DNL of the Future (2012) Baseline noise contour. There will be 5,584 housing units; an estimated 13,736 residents; 37 churches; and eight schools located within the 60-65 DNL of the Future (2012) Baseline noise contour.

All of the homes located within the 60-65 DNL of both the Existing (2006) and Future (2012) Baseline noise contours are located in the cities of Columbus and Gahanna and Jefferson and Mifflin Townships in Franklin County.

Table 3-3
EXISTING (2006) BASELINE HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**2,579**	**0**	**0**	**0**	**0**
Mitigated	672	0	0	0	0
Sound Insulated	652	0	0	0	0
Easement	20	0	0	0	0
Unmitigated	1,907	0	0	0	0
Eligible for Sound Insulation but not Insulated	160	0	0	0	0
Not Previously Mitigated	1,747	0	0	0	0
Mifflin Township	**50**	**12**	**0**	**0**	**12**
Mitigated	24	12	0	0	12
Sound Insulated	24	12	0	0	12
Easement	0	0	0	0	0
Unmitigated	26	0	0	0	0
Eligible for Sound Insulation but not Insulated	19	0	0	0	0
Not Previously Mitigated	7	0	0	0	0
Gahanna	**2**	**0**	**0**	**0**	**0**
Mitigated	2	0	0	0	0
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated	0	0	0	0	0
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	0	0	0	0	0
Jefferson Township	**5**	**0**	**0**	**0**	**0**
Mitigated	0	0	0	0	0
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated	5	0	0	0	0
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	5	0	0	0	0
Total Housing Units	**2,636**	**12**	**0**	**0**	**12**
Population					
Total Population	**6,511**	**30**	**0**	**0**	**30**
Noise-Sensitive Facilities					
Churches	18	0	0	0	0
Schools	2	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

- Noise contours were generated using the Integrated FAA's Noise Model, Version 6.2 computer model.
- Housing counts are based on field verification.
- Population numbers are approximate based on the housing counts multiplied by the 2000 Census housing to population ratio.

Source: Landrum & Brown, 2007.

Table 3-4
FUTURE (2012) BASELINE HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

	60-65 DNL	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
Housing Units					
Columbus	**5,526**	**642**	**0**	**0**	**642**
Mitigated	695	301	0	0	301
Sound Insulated	357	301	0	0	301
Easement	338	0	0	0	0
Unmitigated	4,831	341	0	0	341
Eligible for Sound Insulation but not Insulated	81	80	0	0	80
Not Previously Mitigated	4,750	261	0	0	261
Mifflin Township	**12**	**58**	**0**	**0**	**58**
Mitigated	0	36	0	0	36
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated	12	22	0	0	22
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
Gahanna	**31**	**0**	**0**	**0**	**0**
Mitigated	2	0	0	0	0
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated	29	0	0	0	0
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
Jefferson Township	**15**	**0**	**0**	**0**	**0**
Mitigated	0	0	0	0	0
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated	15	0	0	0	0
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
Total Housing Units	**5,584**	**700**	**0**	**0**	**700**
Population					
Total Population	**13,792**	**1,729**	**0**	**0**	**1,729**
Noise-Sensitive Facilities					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

- Noise contours were generated using the Integrated FAA's Noise Model, Version 6.2 computer model.
- Housing counts are based on field verification.
- Population numbers are approximate based on the housing counts multiplied by the 2000 Census housing to population ratio.
- Baseline conditions assume the continuation of the existing operating procedures without modification.

Source: Landrum & Brown, 2007.

Table 3-5
EXISTING (2006) BASELINE VERSUS FUTURE (2012) BASELINE HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY INCOMPATIBILITIES
Port Columbus International Airport

CATEGORY	EXISTING (2006) BASELINE	FUTURE (2012) BASELINE
Housing Units		
60-65 DNL*	2,636	5,584
65-70 DNL	12	700
70-75 DNL	0	0
75+ DNL	0	0
65+ DNL	12	700
Population		
60-65 DNL*	6,511	13,792
65-70 DNL	30	1,729
70-75 DNL	0	0
75+ DNL	0	0
65+ DNL	30	1,729
Noise Sensitive Facilities (Churches, Schools, Libraries and Nursing Homes)		
60-65 DNL*	20	45
65-70 DNL	0	0
70-75 DNL	0	0
75+ DNL	0	0
65+ DNL	0	0

Notes:

* FAA Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL.

- Noise contours were generated using the Integrated FAA's Noise Model, Version 6.2 computer model.
- Housing counts are based on field verification.
- Population numbers are approximate based on the housing counts multiplied by the 2000 Census housing to population ratio.
- Baseline conditions assume the continuation of the existing operating procedures without modification.

Source: Landrum & Brown, 2007.

CHAPTER FOUR
NOISE COMPATIBILITY PROGRAM

The culmination of the Federal Aviation Regulation (FAR) Part 150 planning process is the development of a set of measures designed to enhance the compatibility between the airport and its surrounding environs. This chapter presents previous measures from the 1999 Part 150 program that are either being continued as is, continued with modifications, or are being withdrawn, as well as new measures that are being recommended. Collectively, these measures are referred to as the 2007 Noise Compatibility Program (2007 NCP). These include noise abatement, land use mitigation, and implementation measures designed to reduce or mitigate the impact of aircraft noise upon the surrounding community. The measures recommended for implementation for the Port Columbus International Airport (CMH) have resulted from the planning process described throughout this document. The 1999 Part 150 included five noise abatement measures (NA-1 through NA-5). Four of the currently approved noise abatement measures are being carried forward with no modification. One currently approved measure (NA-5) is being withdrawn and five new noise abatement measures are recommended for implementation. The approved 1999 Part 150 Plan included 11 land use mitigation measures (LU-1 through LU-11). One new land use mitigation measure is recommended for implementation and one is being recommended to be withdrawn. These land use mitigation measures relate to the future development of land and mitigation of aircraft noise impacts. Six program management measures (PM-1 through PM-6) relate to the oversight, management, and the implementation of the noise program. Appendix E, *Noise Abatement Alternatives,* and Appendix F, *Land Use Alternatives*, include a list of all alternatives assessed for the Noise Compatibility Program (NCP). Appendix G, *Public Involvement*, contains meeting materials and a discussion of Planning Advisory Committee (PAC) meetings, technical conferences, and public meetings. These meetings were integral in the development and evaluation of all NCP measures.

The measures are presented as a series of plates that summarize pertinent information required about each of the measures by FAR Part 150 guidance. This information includes:

- A description and the background and intent of the measure
- The anticipated effect on land use compatibility
- The party(or parties) responsible for implementation
- The steps necessary for implementation, its anticipated cost, and the projected timing of implementation
- The relationship to other planning programs and other measures

Where helpful for clarification, an exhibit associated with the measure is provided. **Table 4-1** summarizes the measures included in CMH's NCP.

Following the plates for individual program measures is an exhibit showing the NCP map which incorporates each of the recommended program measures, as well as a description of the population, housing, and noise-sensitive land use impacts associated with its full implementation by the year 2012. The final section of this chapter summarizes the anticipated costs of implementing the 2007 NCP and provides an implementation schedule for the program. As discussed previously, the approval of the 2007 NCP by the Federal Aviation Administration (FAA) does not commit the FAA or the Columbus Regional Airport Authority (CRAA) to the costs or the implementation schedule listed in this document. Noise abatement measures NA-6 and NA-7 would require an environmental review in accordance with NEPA and FAA guidelines (currently being completed as part of the FAA's on-going EIS). This information is provided here as a planning tool to assist the implementation of the NCP.

Implementation of the noise abatement, corrective land use, and program management measures is at the discretion of the CRAA and subject to available funding from both the FAA and CRAA. Implementation of the preventive land use measures (LU-3 through LU-11) is solely at the discretion of local governments and other local agencies.

Table 4-1
2007 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Noise Abatement Recommendations					
NA-1 Amend The Port Columbus International Airport Night Time Aircraft Maintenance Run-Up Policy to designate a new run-up location such that EJA's new building will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.	CRAA	None	None	None	This measure is currently implemented.
NA-2 Construct a new run-up barrier at the north airfield, if the EJA building does not adequately attenuate jet maintenance run-up noise for adjacent residential areas located along I-270.	CRAA	None	None	None	This measure is currently implemented.

Table 4-1, *Continued*
2007 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Noise Abatement Recommendations					
NA-3 Increase nighttime use of Runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1 to read as follows: Unless wind, weather, runway closure, or loss of NAVAIDS dictate otherwise, between the hours of 10:00 p.m. and 8:00 a.m. local time, Runways 28L or 10R are assigned jet aircraft; jet aircraft with Stage 3 engines may use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m., local time; and jet aircraft with Stage 3 engines may use Runway 10L or 28R after 6:00 a.m.	CRAA, FAA	None	None	None	This measure is currently implemented with modifications.
NA-4 Maximize east flow and amend FAA Tower order CMH ATCT 7110.1b and the Airport Facilities Directory to reflect implementation of the "east flow" informal preferential runway use system.	CRAA, FAA	$30,000 to conduct periodic studies of operating conditions and to develop recommendations for ways to increase the use of east flow.	None	None	This measure is currently implemented in the Tower Order.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Noise Abatement Recommendations					
NA-5 Amend FAA Tower Order CMH ATCT 7110.1 and FAA Notice CMH ATCT N7110.22 to read as follows: During nighttime operations, 10:30 p.m. to 7:00 a.m. local time, the following procedures shall be used for departures off runway 10R: (1) Aircraft normally assigned a runway heading shall be assigned a heading of 100 degrees; (2) Propeller driven aircraft, conventional or turboprop, shall be turned no further than 15 degrees left or right (085 to 115). These headings shall not be altered until the aircraft has reached 3,000 MSL or is 3 miles from runway end; (3) The aircraft will begin the turn at 2.2 DME from the runway 10R LOC/DME; (4) the aircraft must climb to an altitude of 1,215 feet MSL before turning.	n/a	n/a	n/a	n/a	This measure is being withdrawn.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Noise Abatement Recommendations					
NA-6 Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.	CRAA,FAA	None	None	None	This is a new measure. Environmental analysis required by NEPA will be conducted in the ongoing EIS.
NA-7 Create performance-based overlay procedures for all existing and proposed arrival/departure procedures. (RNAV/RNP/GPS/CDA)	CRAA,FAA, pilots	Study of a CDA procedure would cost $25,000.	None	None	This is a new measure. Environmental analysis required by NEPA will be conducted in the ongoing EIS.
NA-8 Construct a noise berm/wall.	CRAA	Construction of a berm/wall, 2,000 feet long, is estimated to cost approximately $1.5 million.	None	None	This measure is contingent upon the findings of the EIS. Implementation would only occur after FAA approval of the EIS. The final length, location, and design of the berm/wall will be determined through coordination with the FAA and adjacent residents.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION SCHEDULE TARGET
Noise Abatement Recommendations					
NA-9 Replacement and potential relocation of Ground Run-up Barrier B (location/materials/size).	CRAA	Relocation and construction of a ground run-up barrier is estimated to cost approximately $800,000.	None	None	The relocation of Barrier B is dependent on the site of the potential new hangars on the south side of the airfield.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Land Use Recommendations					
LU-1 Offer a program for noise insulation of noncompatible structures for noncompatible residences within the 65+ DNL contour of the Future (2012) Noise Compatibility Program (NCP) condition, in exchange for an avigation easement.	CRAA (subject to the availability of FAA and local matching funding).	Assuming a 100% participation rate, at $35,000 per home the total price would be approximately $8,645,000.	None	None	Implemented. All homes eligible for sound insulation based on the 2002 NEM Update Study, have been sound insulated or have been offered sound insulation and refused. The recommended program may be offered upon FAA approval and the availability of FAA and CRAA funding.
LU-2 Offer a program for noise insulation of noncompatible structures for noncompatible churches within the 65+ DNL contour of the Future (2012) Noise Compatibility Program (NCP) condition in exchange for an avigation easement.	CRAA (subject to the availability of FAA funding).	None	None	None	Implemented. No churches are located in the 65+ DNL of the Future (2012) NEM/NCP.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
LU-3 Seek cooperation from the City of Columbus and Franklin County to amend their land use compatibility standards to achieve the level of compatibility identified in the recommended land use compatibility guidelines.	City of Columbus, Franklin County, and CRAA	Minimal	Minimal	None	Partially implemented.
LU-4 Seek cooperation from the City of Columbus and Franklin County to amend the boundaries of the Airport Environs Overlay (AEO) district to reflect the proposed Airport Land Use Management District (ALUMD)**.**	City of Columbus, Franklin County, and CRAA	Minimal	Minimal	None	This measure is a modification of approved measure LU-4 and may be implemented at any time.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
LU-5 Seek cooperation from Franklin County, City of Gahanna, and Jefferson Township to amend the Franklin County zoning resolution, Section 660.07, avigation easement, to require applicants for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport.	Franklin County, City of Gahanna, Jefferson Township, and CRAA	Minimal	Minimal	None	This measure is a continuation of approved measure LU-5.
LU-6 Seek cooperation from Jefferson Township and the City of Gahanna to adopt the proposed Airport Land Use Management District (ALUMD) as part of their official zoning regulations to include.	Jefferson Township, City of Gahanna, and CRAA	Minimal	Minimal	None	This measure is a modification of approved measure LU-6 and may be implemented at any time.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
LU-7 Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the proposed Airport Land Use Management District (ALUMD).	Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, and CRAA	Minimal	Minimal	None	This measure is a modification of approved measure LU-7 and may be implemented at any time.
LU-8 Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the proposed Airport Land Use Management District (ALUMD).	Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, and CRAA	Minimal	Minimal	None	This measure is a modification of approved measure LU-8 and may be implemented at any time.
LU-9 Seek cooperation from the board of realtors to participate in a fair disclosure program for property located within the proposed Airport Land Use Management District (ALUMD).	Columbus Area Board of Realtors and Homebuilders Association.	Approximately $10,000 for outside consulting assistance	None	None	This measure is a modification of approved measure LU-9. This program may be offered upon FAA approval and the availability of FAA and CRAA funding.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
LU-10 Periodically place advertisements in a variety of media outlets delineating the boundaries of the Airport Land Use Management District (ALUMD).	CRAA	Approximately $10,000 annually	None	None	This measure is a modification of approved measure LU-10. This program may be offered upon FAA approval and the availability of FAA and CRAA funding.
LU-11 Purchase the Buckles property to prevent imminent noncompatible development from occurring.	n/a	n/a	n/a	n/a	This measure is being withdrawn.
LU-12 Develop an Airport Land Use Management District (ALUMD) based on the 20-year Noise Exposure Map/Noise Compatibility Program (NCP) noise contour, natural geographic and jurisdictional boundaries.	Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, City of Columbus, Bexley, Whitehall, Reynoldsburg, Truro Township, MORPC, and CRAA	$50,000 for outside consulting assistance.	Minimal	None	This program may be offered upon FAA approval and the availability of FAA and CRAA funding.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
Program Management Recommendations					
PM-1 Maintain the noise abatement elements of the FAA ATCT Tower Order	FAA	None	None	None	2007 and continuing
PM-2 Maintain the Noise Management Office for noise compatibility program management	CRAA	None	None	None	2007 and continuing however improvements can take place after obtaining FAA and CRAA funding.
PM-3 Maintain an ongoing public involvement program regarding the noise compatibility program	CRAA	$25,000 annually to produce outreach materials such as the noise complaint hotline annual report and pilot awareness materials	None	None	2007 and continuing however improvements can take place after obtaining FAA and CRAA funding.
PM-4 Maintain the noise and flight track monitoring system, and expand and upgrade the system as necessary. Add up to eight permanent NMTs and upgrade the computer software and hardware as necessary	CRAA	Eight permanent noise monitors: $130,000 to $160,000.	None	None	2007 and continuing however improvements can take place after obtaining FAA and CRAA funding.

Table 4-1, *Continued*
NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS
Port Columbus International Airport

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
PM-5 Routinely update the noise contours and periodically update the noise program	CRAA, FAA	NEMs ($100,000) NCPs ($500,000)	None	None	Update NEMS and NCP 12 to 18 months after the opening of the replacement runway.
PM-6 Establish a land use compatibility task force which meets periodically to discuss issues relevant to airport noise compatibility planning	CRAA	$5,000 to $15,000 annually (depending on frequency and type of meetings)	None	None	Previously implemented but no longer active. Could be reestablished if determined to be necessary.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-1 EXHIBIT: N/A

Description: Amend The Port Columbus International Airport Night Time Aircraft Maintenance Run-Up Policy to designate a new run-up location such that EJA's new building will provide attenuation of jet engine maintenance run-ups for adjacent residential areas located along I-270.

Background and Intent: Approved Measure NA-1 was recommended due to NetJets' (formerly Executive Jet Aviation) relocation from the southeast side of the airfield to 1,000 feet north of the centerline of Runway 10L/28R. NetJets primary location for performing engine maintenance run-ups was on the southeast corner of the airfield (Barrier B). The relocation to the north side of the airfield no longer made this location convenient. An additional run-up location was identified on the north airfield.

Relationship to 1999 NCP: Continues approved measure NA-1 of 1999 Part 150 Noise Compatibility Program (NCP).

Land Use Compatibility Improvement: Provides for noise reduction associated with ground run-up activity.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: No additional steps.

Costs: No additional costs.

Schedule: The program has been initiated and will continue without interruption

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-2 EXHIBIT: N/A

Description: Construct a new run-up barrier at the north airfield, if the EJA building does not adequately attenuate jet maintenance run-up noise for adjacent residential areas located along I-270.

Background and Intent: Approved Measure NA-2 was recommended due to NetJets' (formerly Executive Jet Aviation) relocation from the southeast side of the airfield to 1,000 feet north of the centerline of Runway 10L/28R. NetJets primary location for performing engine maintenance run-ups was on the southeast corner of the airfield (Barrier B). The relocation to the north side of the airfield no longer made this location convenient. An additional run-up location was identified on the north airfield (NA-1) and eventually a run-up barrier was recommended (Barrier C).

Relationship to 1999 NCP: Continues approved Measure NA-2 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: Provides for noise reduction associated with ground run-up activity.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: No additional steps.

Costs: No additional costs.

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-3 EXHIBIT: N/A

Description: Increase nighttime use of Runway 10L/28R and amend FAA Tower Order CMH ATCT 7110.1 to read as follows: Unless wind, weather, runway closure, or loss of NAVAIDS dictate otherwise, between the hours of 10:00 p.m. and 8:00 a.m. local time, Runways 28L or 10R are assigned jet aircraft; jet aircraft with Stage 3 engines may use Runway 10L/28R for arrival operations between the hours of 10:00 p.m. and 1:00 a.m., local time; and jet aircraft with Stage 3 engines may use Runway 10L or 28R after 6:00 a.m.

Background and Intent: Approved Measure NA-3 implemented air traffic procedures which were designed to keep the noisiest aircraft on the south runway (Runway 10R/28L) during the nighttime. This measure was implemented with modifications. The Tower Order reads as follow: *The following shall be utilized between the hours of 2200-0800 local time: Unless wind, weather, runway closures, or loss of NAVAIDS dictate otherwise, Runways 28L or 10R shall be assigned to jet aircraft. Jet aircraft with Stage 3 engines may use Runway 10L or 28R after 0700.* As implemented, pilots had the ability to request the north runway and were given the north runway after being advised of the noise sensitive nature of the runway. These procedures continue to guide the airport's nighttime noise abatement initiatives.

Relationship to 1999 NCP: Continues approved Measure NA-3 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: Focuses nighttime activity over the most compatible areas around the airport.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA) and FAA Airport Air Traffic Control Tower.

Implementation Steps, Costs, and Phasing:

Steps: No additional steps.

Costs: No additional costs.

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-4 EXHIBIT: N/A

Description: Maximize east flow and amend FAA Tower order CMH ATCT 7110.1b and the Airport Facilities Directory to reflect implementation of the "east flow" informal preferential runway use system.

Background and Intent: Approved measure NA-4 identified east flow as the preferred flow during calm winds due to land use patterns being more compatible to the east of the airport. Currently, the airport operates in east flow approximately 25 percent of the time. This percentage is lower than what would be anticipated given historical weather data. This is due to airline scheduling and airfield layout. The CRAA and the ATCT are currently working on items that will help to increase the use of east flow such as a hold pad on Runway 10L, ATCT visibility of the airfield, and outreach with the airlines.

Relationship to 1999 NCP: Continues approved Measure NA-4 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: Renewing efforts to maximize east flow will reduce noise-sensitive land use impacts.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA) and FAA Airport Air Traffic Control Tower

Implementation Steps, Costs, and Phasing:

Steps: CRAA will work to identify ways to increase the use of east flow and will continue to reach out for FAA ATCT and airline cooperation

Costs: $30,000 for periodic review and development of recommendations for increasing the use of east flow at the airport.

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-5 EXHIBIT: N/A

Description: Amend FAA Tower Order CMH ATCT 7110.1 and FAA Notice CMH ATCT N7110.22 to read as follows: During nighttime operations, 10:30 p.m. to 7:00 a.m. local time, the following procedures shall be used for departures off runway 10R: (1) Aircraft normally assigned a runway heading shall be assigned a heading of 100 degrees. (2) Propeller driven aircraft, conventional or turboprop, shall be turned no further than 15 degrees left or right (085 to 115). These headings shall not be altered until the aircraft has reached 3,000 MSL or is 3 miles from runway end. (3) The aircraft will begin the turn at 2.2 DME from the runway 10R LOC/DME. (4) The aircraft must climb to an altitude of 1,215 feet MSL before turning.

Background and Intent: The original intent of implementing measure NA-5 was for AirNet Systems nighttime operations at Port Columbus International Airport. Since the implementation of this measure, AirNet Systems has relocated to Rickenbacker International Airport.

Relationship to 1999 NCP: This measure is being withdrawn.

Land Use Compatibility Improvement: n/a

Responsible Implementing Parties: n/a

Implementation Steps, Costs, and Phasing:

Steps: n/a

Costs: n/a

Schedule: n/a

Effects on Other Programs/Measures: The withdrawal of this measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-6 EXHIBIT: 4-1

Description: Implement a 15-degree divergent turn off of Runway 28R, after crossing the runway end to a 295-degree heading, only during peak operating periods when traffic warrants.

Background and Intent: Current procedures instruct jet aircraft to fly runway heading until reaching 5 miles or 3,500 feet MSL. A divergent turn is a turn of at least 15 degrees from the typical departure path that allows aircraft to depart sooner. FAA ATCT has requested additional departure headings in order to increase capacity and reduce delays during peak periods. In response to this request, a number of divergent departure headings off of each runway end were assessed for their ability to also reduce noise impacts. This alternative proposes a 15-degree right turn off of Runway 28R. It was recognized that this turn would only be used when air traffic warrants the need for an additional heading (assumed to be approximately 10 percent of the time based on projected demand for 2012).

Because this is a new flight track and the amount of use it would receive is unknown at this point, the recommendation is contingent upon conducting a test period by the Air Traffic Control Tower. The test will be conducted over 180 day period. During the test period, data will be collected by the ATCT and Columbus Regional Airport Authority (CRAA) to monitor when the turn when used, why the turn was needed, and who used the turn. After the test period, the data will be analyzed to determine if the turn increases the noise impacts and complaints in the surrounding communities.

Relationship to 1999 NCP: New measure

Land Use Compatibility Improvement: This procedure would reduce the number of homes within the 65 DNL and would reduce overflights of areas outside the 65 DNL along the Runway 28R centerline.

Responsible Implementing Parties: FAA, Columbus Regional Airport Authority (CRAA)

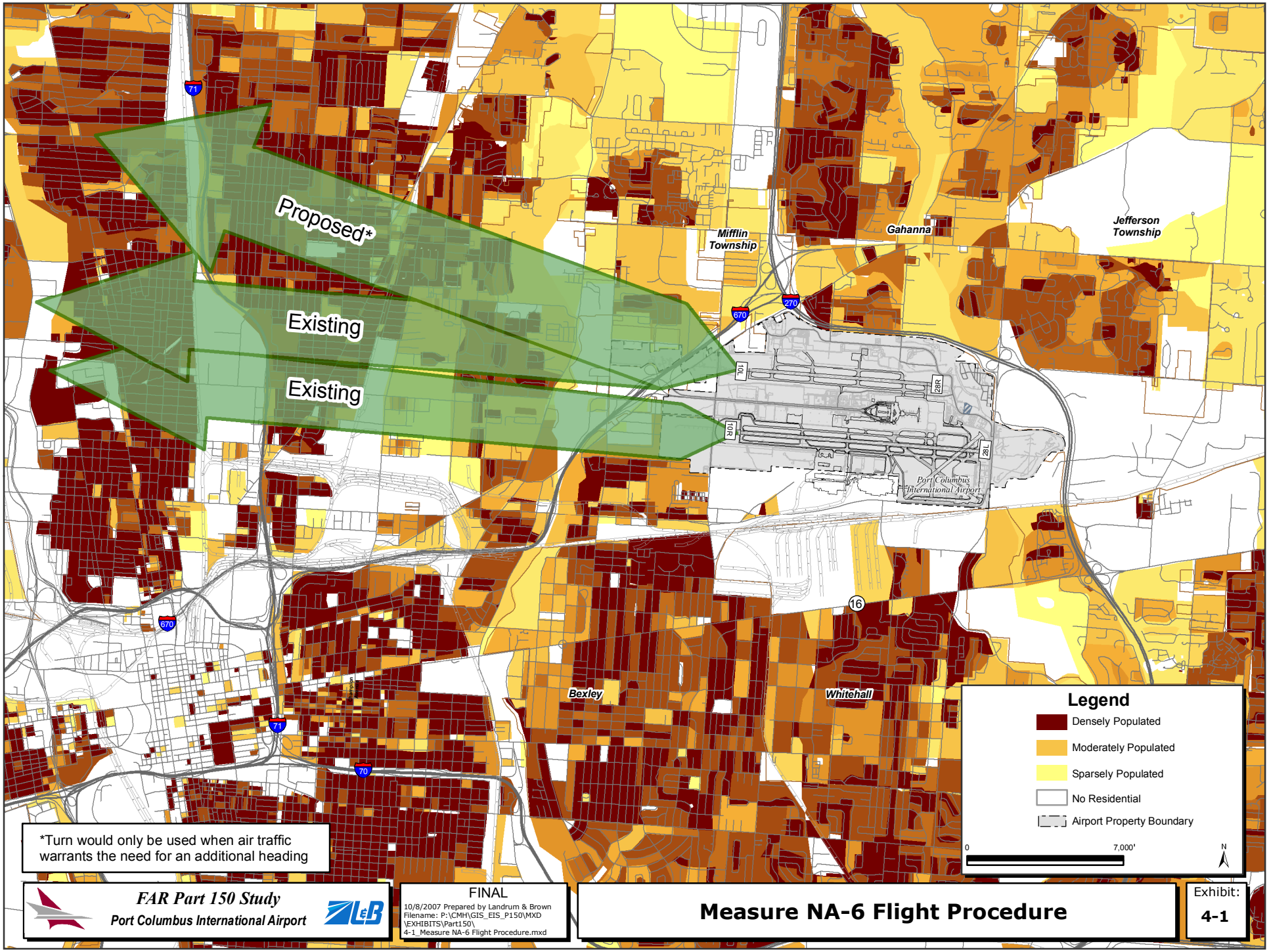
Implementation Steps, Costs, and Phasing:

Steps: This procedure would require an environmental review in accordance with NEPA and FAA guidelines (currently being completed as part of the FAA's on-going EIS).

Costs: None

Schedule: The procedure can be implemented after the FAA completes the on-going EIS and the necessary air traffic documentation for the procedure is prepared.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.



FAR Part 150 Study

Port Columbus International Airport

FINAL

10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\4-1_Measure NA-6 Flight Procedure.mxd

Measure NA-6 Flight Procedure

Exhibit: **4-1**

NOISE COMPATIBILITY PROGRAM MEASURE: NA-7 EXHIBIT: N/A

Description: Create performance-based overlay procedures for all existing and proposed arrival/departure procedures. (RNAV/RNP/GPS/CDA)

Background and Intent: Airports across the country are using performance-based procedures such as Area Navigation (RNAV) and Required Navigation Performance (RNP) to assist in defining flight routes. RNAV/RNP procedures utilize ground-based Differential Global Positioning System (DGPS antenna); satellite-based, Global Positioning System (GPS); and on-board Flight Management System (FMS)/GPS equipment to assist the pilot in navigating from point to point. The systems work by identifying the geographic location of aircraft in relationship to another geographic location called a "waypoint." This provides the necessary information to guide the aircraft towards the desired "waypoint." With GPS, the pilot manually guides the aircraft towards the "waypoint," while an FMS works with the auto-pilot system on the aircraft to automatically fly the aircraft towards the desired "waypoint." In both cases, the use of GPS/FMS can reduce the width and size of departure corridors over standard navigation techniques. The advantage of FMS is that it can more accurately guide the aircraft towards the desired point than can the GPS/pilot system. Aircraft must be equipped with the necessary equipment to fly RNAV/FMS procedures. For RNP procedures, a specific equipment rating is applied to the procedure to insure that aircraft are able to maintain the intended routes.

In addition, a Continuous Descent Approach (CDA) procedure combines the benefits of a steady, continuous descent with optimized flap and landing gear management to create a quieter approach for noise-sensitive communities under the approach path. Current Air Traffic Control Tower (ATCT) procedures involve a series of short descents and periods of leveling off that require adjusting thrust or changing flap settings, before merging with the required three-degree glideslope for the final approach. The CDA procedure involves starting a continuous steady descent from as high as enroute altitudes (25,000-35,000 feet), which allows for a reduction in the required amount of power, thereby reducing noise exposure in two ways: by keeping the aircraft at a higher altitude above the ground; and by stabilizing the flap settings, which reduces airframe noise, and amount of applied thrust.

A CDA procedure was developed by research teams in the industry in order to reduce fuel burn on approach, but has the added benefit of reducing noise exposure. The procedure is currently being evaluated in both the United States and Europe. In late 2002, researchers from MIT, FAA, NASA, Boeing, UPS, and the Louisville International Airport conducted a test of the procedure to evaluate noise and pollutant emissions. The report indicated that the procedure did reduce noise exposure ranging from four to six decibels in areas between 10 to 20 miles from the runway. The tests also indicated that the CDA provides an improvement in fuel efficiency. This measure recommends studying the potential for a CDA approach being tested and/or implemented at CMH.

Relationship to 1999 NCP: New measure

Land Use Compatibility Improvement: Performance based procedures have the potential to reduce noise levels for homes located near the airport (within the 65 DNL) and for those homes located farther from the airport (outside of the 65 DNL).

Responsible Implementing Parties: FAA, Columbus Regional Airport Authority (CRAA), pilots

NOISE COMPATIBILITY PROGRAM MEASURE: NA-7 EXHIBIT: N/A *Continued*

Implementation Steps, Costs, and Phasing:

Steps: The RNAV/FMS/GPS would require an environmental review in accordance with NEPA and FAA guidelines (currently being completed as part of the FAA's on-going EIS). The study of CDA procedures could commence after FAA approval and funding is secured.

Costs: Minimal costs for implementation of the RNAV/FMS/GPS procedures. Study of a CDA procedure would cost $25,000.

Schedule: RNAV/FMS/GPS could begin implementation in April 2009 (after the EIS Record of Decision). Study of a CDA procedure could begin after the FAA issues a Record of Approval (expected in the summer 2008).

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY PROGRAM MEASURE: NA-8 EXHIBIT: 4-2

Description: Construct a noise berm/wall.

Background and Intent: The Columbus Regional Airport Authority (CRAA) has proposed the relocation of Runway 10R/28L 702 feet to the south of the existing runway. The Federal Aviation Administration (FAA) is currently conducting an Environmental Impact Statement (EIS) to assess the impacts of the proposed project. Part of this proposal will require that at a minimum 15 homes on the north side of 13th Avenue in East Columbus be removed to meet airport design standards. The homes would fall within the relocated Runway Protection Zone (RPZ), which is an area around a runway that is required to be void of tall objects or places in which humans may congregate. The CRAA has acknowledged that removing these 15 homes would alter the character of 13th Avenue west of Sterling Road. In order to address this, the CRAA has suggested a number of options. 1) remove only the 15 homes required for the RPZ 2) remove the 15 homes on the north side of 13th Avenue and the 15 homes immediately across the street on the south side of 13th Avenue 3) remove all of the roughly 40 homes on 13th Avenue west of Sterling Road. The decision on which option will be pursued is dependent on the outcome of the EIS process, which is expected to be complete in 2009.

However, the CRAA has recommended that whichever option is decided upon, a noise berm/wall should be constructed to help reduce noise and to minimize the visual impact of the removed homes. The berm/wall would be 16 feet high approximately 2,000 feet in length. For planning purposes, the largest noise berm/wall is being shown so that maximum costs can be calculated (see **Exhibit 4-2**). It should not be construed from the exhibit or from this recommendation that the CRAA wishes or recommends removing all of the homes on 13th Avenue west of Sterling Road. This depiction shows the largest possible noise berm/wall. Further discussion with the FAA and the affected residents will occur before a final decision will be made as to which option will be pursued.

Relationship to 1999 NCP: New measure

Land Use Compatibility Improvement: This measure would help to reduce ground noise impacts to homes located on 13th and 12th Avenues.

Responsible Implementing Parties: CRAA

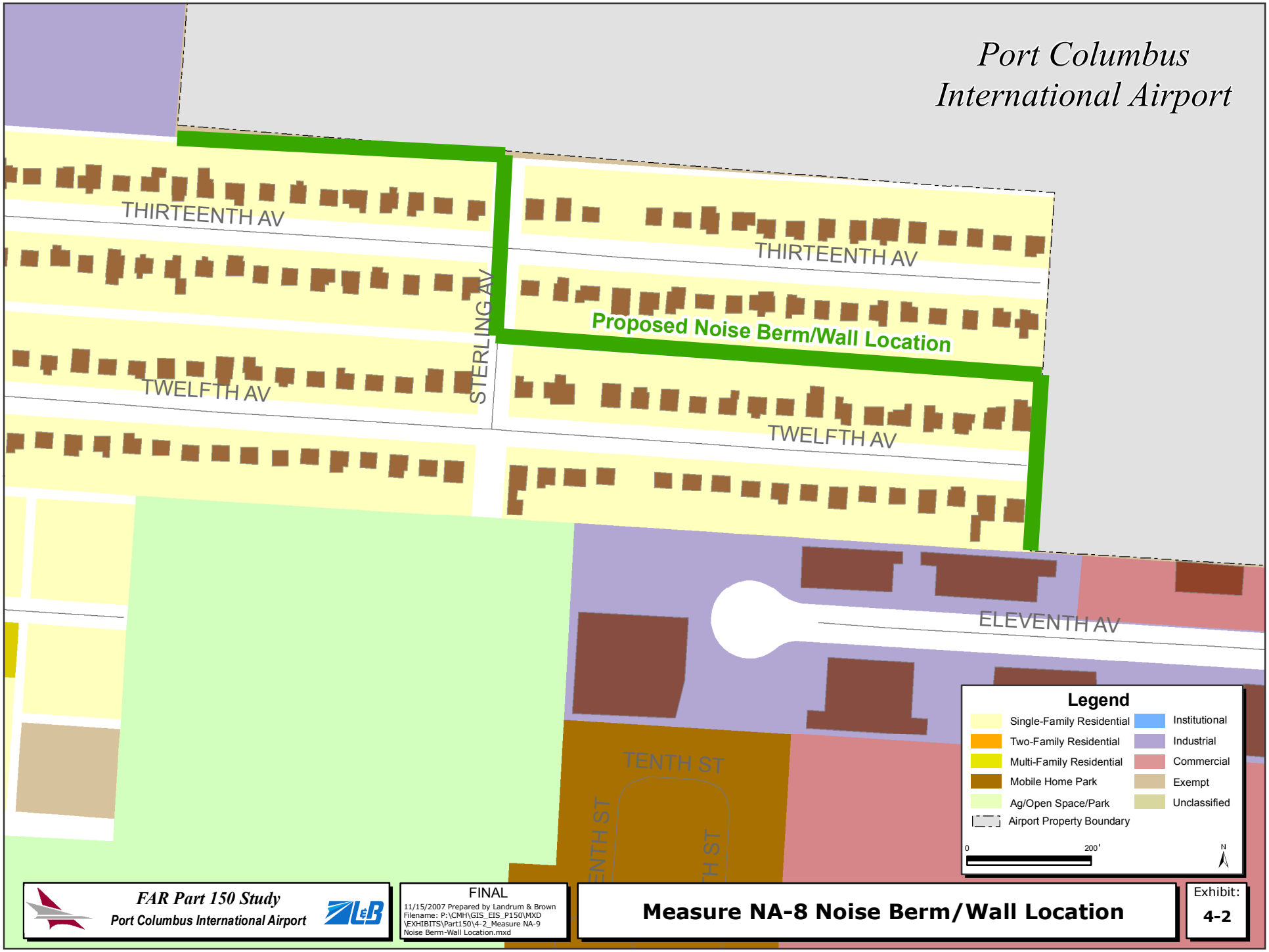
Implementation Steps, Costs, and Phasing:

Steps: After the FAA completes the EIS, the homes on 13th and 12th Avenues that will be purchased will be identified. After those homes are purchased and removed, the CRAA can then begin the process of securing funding, designing, and constructing the berm/wall.

Costs: A 2,000-foot berm/wall would cost approximately $1.5 million.

Schedule: The berm/wall would be constructed in 2010.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.


Port Columbus
International Airport
THIRTEENTH AV
THIRTEENTH AV
STERLING AV
Proposed Noise Berm/Wall Location
TWELFTH AV
TWELFTH AV
ELEVENTH AV
TENTH ST
Legend
Single-Family Residential
Two-Family Residential
Multi-Family Residential
Mobile Home Park
Ag/Open Space/Park
Airport Property Boundary
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Industrial
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FAR Part 150 Study
Port Columbus International Airport
FINAL
11/15/2007 Prepared by Landrum & Brown
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Noise Berm-Wall Location.mxd
Measure NA-8 Noise Berm/Wall Location
Exhibit:
4-2

NOISE COMPATIBILITY PROGRAM MEASURE: NA-9 EXHIBIT: 4-3

Description: Replacement and potential relocation of Ground Run-up Barrier B (location/materials/size).

Background and Intent: Run-up barriers are constructed to reduce noise impacts associated with run-up operations. They are typically installed at airports with heavy maintenance facilities and large numbers of complaints related to run-up operations.

The airport currently has three ground run-up barriers at CMH. Barrier A (located to the south of Concourse B), Barrier B (located north of the southeast end of Taxiway G), and Barrier C (located on the north airfield north of Runway 10L/28R). An assessment of each found that Barriers A and C are properly sized and located for the types of operations they serve. However, Barrier B may need to be relocated and/or expanded to fit in with proposed maintenance hangars and to accommodate larger aircraft. Currently Barrier B can accommodate up to Design Group C-II aircraft. In the event Barrier B can not be modified to accommodate larger aircraft (i.e.: Airbus A-319, B-737), a new barrier will be constructed.

Relationship to 1999 NCP: New measure

Land Use Compatibility Improvement: Barrier B provides noise reduction for the communities to the south of CMH. It is anticipated that this barrier will in the future receive more and larger aircraft than it currently does. Therefore, upgrading the barrier will help to continue the noise reduction it provides today.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

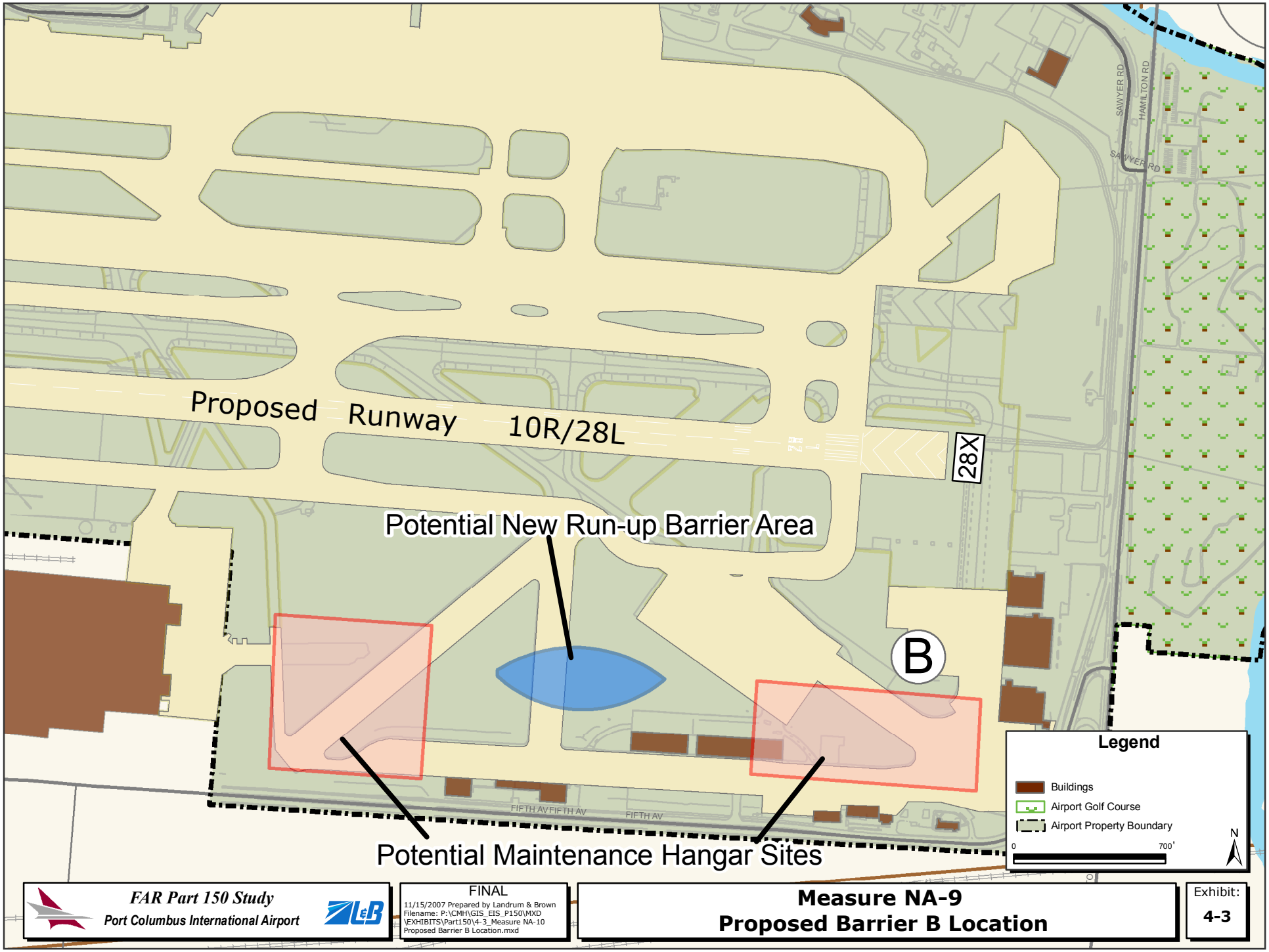
Implementation Steps, Costs, and Phasing:

Steps: After FAA approval, CRAA secures funding, designs, and constructs the barrier.

Costs: Approximately $800,000.

Schedule: CRAA can begin implementation after FAA approval of the Part 150 Study (expected in the Summer 2008).

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.



FAR Part 150 Study
Port Columbus International Airport

FINAL
11/15/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\4-3_Measure NA-10 Proposed Barrier B Location.mxd

Measure NA-9
Proposed Barrier B Location

Exhibit:
4-3

NOISE COMPATIBILITY PROGRAM MEASURE: LU-1 EXHIBIT: 4-4

Description: Offer a program for noise insulation of noncompatible structures for noncompatible residences within the 65+ DNL contour of the Future (2012) Noise Compatibility Program (NCP) condition, in exchange for an avigation easement.

Background and Intent: Approximately 247 homes inside the 65 DNL of the Future (2012) NCP would be eligible for sound insulation. The growth in operations and relocation of Runway 10R/28L would result in homes that have not been sound insulated receiving aircraft noise levels of 65 DNL. Most of these homes are outside the CRAA's previous sound insulation boundaries, but 85 of these homes have been previously eligible for sound insulation, but chose not to participate. The total number of homes also includes homes that are adjacent to the 65 DNL and would be included in the program to preserve the integrity of contiguous, stable, and viable residential neighborhoods of similar housing design, construction type and materials. This is consistent with FAA and CRAA policies regarding the eligibility of homes for noise mitigation.

The homes eligible for sound insulation would be given a priority status that is dependent on location and prior eligibility for sound insulation. Area A (highest priority) would include homes located within the 65 DNL of the Future (2012) NCP that have never been eligible for sound insulation. Area B (second highest priority) would include the homes in the areas adjacent to Area A that would maintain continuity within the neighborhood. Area C (lowest priority) would include the homes that were previously eligible for sound insulation but had declined. All homes that participate in the sound insulation program would be required to confer an avigation easement to the CRAA in exchange for the improvements.

Relationship to 1999 NCP: Measure LU-1 is a continuation of the approved 1999 NCP Measure LU-1, revised based on the 65 DNL noise contour of the Future (2012) NCP.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA) and FAA

Implementation Steps, Costs, and Phasing:

Steps: CRAA should initiate offers to eligible homeowners to sound insulate single-family residential structures upon FAA approval of the 2007 NCP in accordance with established policies of the airport and the schedule outlined below.

Costs: The cost associated with the implementation of Measure LU-1, which will accrue to CRAA, are expected to be approximately $8,645,000 for sound insulation, assuming a cost of $35,000 per house and a participation rate of 100 percent.

Schedule: FAA approval of the NCP is necessary before federal funding can be obtained for this measure. The participation in this program is voluntary on the part of the homeowner and is subject to the availability of funding.

Effects on Other Programs/Measures: The implementation of this measure is not expected to adversely affect any other mitigation program measures.

Future (2012) NEM/ NCP 65 DNL
Noise Exposure Contour

Future (2012) NEM/ NCP 65 DNL
Noise Exposure Contour

Legend

- Existing SIP Boundary
- Proposed Addition to SIP Boundary
- Built 2002 to Present - Not Eligible
- Airport Property Boundary

0 800' N

FAR Part 150 Study
Port Columbus International Airport

FINAL
10/8/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD
\EXHIBITS\Part150\4-4_Measure LU-1
Proposed Sound Insulation Boundary.mxd

Measure LU-1 Proposed Sound Insulation Boundary

Exhibit:
4-4

NOISE COMPATIBILITY PROGRAM MEASURE: LU-2 EXHIBIT: N/A

Description: Offer a program for noise insulation of noncompatible structures for noncompatible churches within the 65+ DNL contour of the 2012 NEM/NCP condition in exchange for an avigation easement.

Background and Intent: As part of the 1999 Part 150 Update two churches were located in the 65 DNL noise contour of the Year 2003 Future Condition Noise Exposure Map: Mount Judia Church of Old Regular Baptists of Jesus Christ and Wonderland Community Church. The Mount Judia Church of Old Regular Baptists of Jesus Christ was contacted and advised that required paper work would need to be submitted to the IRS to confirm their church status with the IRS. To date, the CRAA has not heard back from the church that the paperwork has been filed. The church would not be located in the 65 DNL of the Future (2012) NCP noise contour. The CRAA currently has an avigation easement on the Wonderland Community Church, making the land use compatible. Therefore, there are no churches within the 65 DNL of the Future (2012) NCP noise contour.

Relationship to 1999 NCP: Measure LU-2 is a continuation of the approved 1999 NCP Measure LU-2, revised based on the 65 DNL noise contour of the Future (2012) NCP.

Land Use Compatibility Improvement: Continues the CRAA policy of providing sound insulation for churches within a 65 DNL noise contour.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: No churches are located in the 65 DNL of the Future (2012) NCP therefore no steps are needed at this time.

Costs: None

Schedule: n/a

Effects on Other Programs/Measures: This measure is not expected to adversely affect any other mitigation program measures.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-3 EXHIBIT: N/A

Description: Seek cooperation from the City of Columbus and Franklin County to amend their land use compatibility standards to achieve the level of compatibility identified in the recommended land use compatibility guidelines.

Background and Intent: This measure was partially implemented. The recommended guidelines called for restrictions on certain land uses within the Airport Environs Overlay (AEO) sub-district boundaries. In some cases the jurisdictions have adopted the recommendations for land uses within the AEO sub-districts. However, in other cases the guidelines adopted are not as strict as the original recommendation.

Relationship to 1999 NCP: Measure LU-3 is a continuation of the approved 1999 NCP Measure LU-3.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: City of Columbus, Franklin County, and Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: CRAA to continue working with local jurisdictions to achieve compatibility standards that are in accordance with Federal guidelines.

Costs: Minimal cost to the airport and local governments.

Schedule: This is an on-going measure that will continue.

Effects on Other Programs/Measures: This measure is not expected to adversely affect any other mitigation program measures.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-4 EXHIBIT: N/A

Description: Seek cooperation from the City of Columbus and Franklin County to amend the boundaries of the Airport Environs Overlay (AEO) district to include proposed Airport Land Use Management District (ALUMD) corresponding to the 60 DNL of the 20 year NCP contour.

Background and Intent: This measure was not fully implemented. Both the City of Columbus and Franklin County set the AEO boundary at the 65 DNL contour versus the recommended 60 DNL. In order to address concerns by the jurisdictions about moving boundaries and to provide a more reliable land use policy, a fixed boundary approach is being recommended through the implementation of the ALUMD. More information on the ALUMD is provided in Measure LU-12.

Relationship to 1999 NCP: Measure LU-4 is a continuation of the approved 1999 NCP Measure LU-4.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: City of Columbus, Franklin County, and Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: CRAA to continue working with local jurisdictions to implement the recommendations for the area defined in the ALUMD.

Costs: Minimal

Schedule: Can be implemented immediately.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-5 EXHIBIT: N/A

Description: Seek cooperation from Franklin County, City of Gahanna, and Jefferson Township to amend the Franklin County zoning resolution, Section 660.07, avigation easement, to require applicants for rezoning, change of use, or special use permit to convey an avigation easement to the appropriate airport.

Background and Intent: This measure was partially implemented. Section 660.07 requires conveyance of avigation easements for variance or conditional use permits only.

Relationship to 1999 NCP: Measure LU-5 is a continuation of the approved 1999 NCP Measure LU-5.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: Franklin County, City of Gahanna, Jefferson Township, and Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: CRAA will continue to work with the local jurisdictions to implement the original language of the measure.

Costs: Minimal

Schedule: This is an on-going measure that will continue.

Effects on Other Programs/Measures: This measure is not expected to adversely affect any other mitigation program measures.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-6 EXHIBIT: N/A

Description: Seek cooperation from Jefferson Township and the City of Gahanna to adopt the proposed Airport Land Use Management District (ALUMD) as part of their official zoning regulations to include.

Background and Intent: This measure was not implemented as originally recommended using the Airport Environs Overlay (AEO) boundary. Neither the City of Gahanna nor Jefferson Township adopted the AEO boundary. In order to address concerns by the jurisdictions about moving boundaries and to provide a more reliable land use policy, a fixed boundary approach is being recommended through the implementation of the ALUMD. More information on the ALUMD is provided in Measure LU-12.

Relationship to 1999 NCP: Measure LU-6 is a continuation of the approved 1999 NCP Measure LU-6.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: Jefferson Township, City of Gahanna, and Columbus Regional Airport Authority (CRAA)

Steps: CRAA to continue working with local jurisdictions to implement the recommendations for the area defined in the ALUMD.

Costs: Minimal

Schedule: Can be implemented immediately.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-7 EXHIBIT: N/A

Description: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt subdivision codes applicable to the proposed Airport Land Use Management District (ALUMD).

Background and Intent: This measure was not implemented as originally recommended using the Airport Environs Overlay (AEO) boundary. None of the jurisdictions listed adopted subdivision codes applicable to development near the airport for the AEO boundary. In order to address concerns by the jurisdictions about moving boundaries and to provide a more reliable land use policy, a fixed boundary approach is being recommended through the implementation of the ALUMD. More information on the ALUMD is provided in Measure LU-12.

Relationship to 1999 NCP: Measure LU-7 is a continuation of the approved 1999 NCP Measure LU-7.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, and Columbus Regional Airport Authority (CRAA)

Steps: CRAA to continue working with local jurisdictions to implement the recommendations for the area defined in the ALUMD.

Costs: Minimal

Schedule: Can be implemented immediately.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-8 EXHIBIT: N/A

Description: Seek cooperation from Franklin County, Jefferson Township, Mifflin Township, and the City of Gahanna to adopt building codes applicable to the proposed Airport Land Use Management District (ALUMD).

Background and Intent: This measure was not implemented as originally recommended using the Airport Environs Overlay (AEO) boundary. None of the jurisdictions listed adopted building codes applicable to development near the airport for the AEO boundary. In order to address concerns by the jurisdictions about moving boundaries and to provide a more reliable land use policy, a fixed boundary approach is being recommended through the implementation of the ALUMD. More information on the ALUMD is provided in Measure LU-12.

Relationship to 1999 NCP: Measure LU-8 is a continuation of the approved 1999 NCP Measure LU-8.

Land Use Compatibility Improvement: Will enhance the compatibility of land used surrounding the airport.

Responsible Implementing Parties: Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, and Columbus Regional Airport Authority (CRAA)

Steps: CRAA to continue working with local jurisdictions to implement the recommendations for the area defined in the ALUMD.

Costs: Minimal

Schedule: Can be implemented immediately.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-9 EXHIBIT: N/A

Description: Seek cooperation from the board of realtors to participate in a fair disclosure program for property located within the proposed Airport Land Use Management District (ALUMD).

Background and Intent: Fair disclosure regulations are intended to ensure that prospective buyers of property are informed that the property is, or will be, exposed to potentially disruptive aircraft noise.

Proposed State Legislation (House Bill 133) was written for the 122nd Ohio General Assembly (1997-1998). This Bill, introduced by Representatives Thomas, Corbin, and Terwilleger, included a fair disclosure element. The Bill proposed that the Aviation Administrator for the State of Ohio Department of Transportation would publish a notice in a newspaper of general circulation in each affected political subdivision, indicating that an airport zone had been identified, and indicating where the public could inspect the airport zone delineation. The Administrator would also notify each landowner of record of land located in the airport zone. This notification would be sent by certified mail to the landowner at the address indicated in the most recent tax duplicate. Any person who received written notice that a parcel of real property that the person owns is included in an airport zone shall not sell or transfer any interest in that real property unless the person first provides written notice to the purchaser or grantee that the real property is included in an airport zone. House Bill 133 never received any further action, and was never moved forward. Currently there is no state law that addresses the issue of fair disclosure.

Since the regulatory approach did not succeed, it may be possible to achieve fair disclosure through voluntary programs. Assistance should be sought from local groups in the housing industry such as the Board of Realtors and the Homebuilders Association and their ethics committees, and local lending institutions. The Columbus Regional Airport Authority (CRAA) should also periodically place advertisements in the real estate sections of the newspapers.

Since owners of property located within the ALUMD are subject to the regulations imposed by the ALUMD, it follows that prospective buyers of real property or lessees of residential property located within the ALUMD should receive fair disclosure regarding the location of the property with respect to the ALUMD.

Relationship to 1999 NCP: Measure LU-9 is a continuation of the approved 1999 NCP Measure LU-9.

Land Use Compatibility Improvement: This measure would notify potential home owners of the airport and the noise associated with aircraft operations.

Responsible Implementing Parties: Columbus Area Board of Realtors and Homebuilders Association

Implementation Steps, Costs, and Phasing:

Steps:

- CRAA contacts local Board of Realtors/Homebuilders Association.
- Develop model Fair Disclosure Statement.
- Fair Disclosure Statement is implemented by the Board of Realtors.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-9 Exhibit: N/A *Continued*

Implementation Steps, Costs, and Phasing, *Continued:*

Costs: Approximately $10,000 for outside consulting assistance

Schedule: This measure would only be implemented after FAA Approval and obtaining FAA funding.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-10 EXHIBIT: N/A

Description: Periodically place advertisements in a variety of media outlets delineating the boundaries of the Airport Land Use Management District (ALUMD).

Background and Intent: The intent of this measure is to notify people living near the airport that aircraft may cause noise that they find objectionable. This outreach effort would be focused on placing advertisements in the local newspapers, on websites, and other media outlets, as appropriate.

Relationship to 1999 NCP: Measure LU-10 is a continuation of the approved 1999 NCP Measure LU-10.

Land Use Compatibility Improvement: Will notify people interested in living in the area about the proximity of the airport.

Responsible Implementing Parties: CRAA

Implementation Steps, Costs, and Phasing:

Steps: After FAA approval and funding is secured, advertisements will be developed and placed through local media outlets.

Costs: $10,000 annually

Schedule: Program can commence upon FAA approval and the securing of funding.

Effects on Other Programs/Measures: This measure is dependent upon measure LU-12 which defines the boundary of the ALUMD.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-11 EXHIBIT: N/A

Description: Purchase the Buckles property to prevent imminent noncompatible development from occurring.

Background and Intent: This measure was recommended to be purchased in the 1999 Part 150 Study Update. Several noncompatible land uses were being proposed for this property. Since the recommendation in the 1999, the property is being redeveloped to incorporate compatible land uses.

Relationship to 1999 NCP: Measure is being withdrawn.

Land Use Compatibility Improvement: n/a

Responsible Implementing Parties: n/a

Implementation Steps, Costs, and Phasing:

Steps: n/a

Costs: n/a

Schedule: n/a

Effects on Other Programs/Measures: The withdrawal of this measure is not expected to adversely affect any other mitigation program measures.

NOISE COMPATIBILITY PROGRAM MEASURE: LU-12 EXHIBIT: 4-5

Description: Develop an Airport Land Use Management District (ALUMD) based on the 2023 Noise Exposure Map/Noise Compatibility Program (NCP) noise contour, other geographic, and jurisdictional boundaries.

Background and Intent: This measure would develop a fixed boundary within which land use controls will be recommended. These land use controls will include noise overlay zoning, updates to subdivision regulations and building codes, and formal fair disclosure policies, as discussed in currently approved measures LU-4 through LU-9.

This measure would identify a boundary, within which, the airport has some influence. This influence includes indirect economic benefits such as hotel and commercial development, noise from aircraft overflights, and restrictions on the use of land or height of structures. All jurisdictions within the ALUMD have been contacted and coordinated with to discuss incorporating this boundary into their planning documents.

The ALUMD is envisioned with a series of sub-districts where different land use controls can be applied. It is recommended that the sub-districts also be fixed boundaries so that normal increases and decreases in the airport's noise contours do not require reestablishing the land use boundaries. The boundaries and suggested levels of restrictions are summarized below:

Boundary A: 2,000' x 5,000' Runway End Boxes:

This area is defined using the existing north and proposed south runway locations. Within 5,000 feet of the end of the runway and 1,000' to either side of the runway centerline is generally an area that will receive the highest noise levels and number of disruptive overflights. In general, within these areas the aircraft, no matter how quiet, are likely to be disruptive to noise-sensitive land uses. It is recommended that no new noise-sensitive land uses be allowed in this area and that the CRAA and the appropriate jurisdiction work to redevelop existing noise-sensitive land uses to something more compatible. This may take the form of changes in zoning and/or avigation easements that restrict the use if sold.

Boundary B: 4,000' x 10,000' Runway End Boxes Modified to Reflect 2023 Noise Contours:

Within 10,000 feet of the end of the runway and 2,000 feet to either side of the runway is an area that will likely receive high levels of noise and numerous overflights now and in the future. This area was modified slightly to reflect the boundaries of the 2012 and 2023 noise exposure contours and to follow naturally occurring boundaries within the community. It is recommended that new noise-sensitive development is discouraged and allowed only if the owner is willing to sign an avigation easement and upgrade building materials to meet noise level reduction criteria consistent with FAA standards.

Boundary C: Community Based Boundary:

This area is defined using the 60 DNL of the 2023 noise exposure contour and community landmarks and boundaries, such as political boundaries and roads. This area would occasionally experience direct overflights and would generally recognize that an airport is nearby. It is acknowledged that at times, the noise levels could be disruptive for those living in this area. It is recommended that within this area, a program for notification should be implemented that alerts people to the fact that they live near an airport and at times there may be some disruption. Suggestions to deal with excessive noise levels for both existing and new development would be offered to people, schools and churches in this area. The CRAA should be given an opportunity for discretionary review from all of the

NOISE COMPATIBILITY PROGRAM MEASURE: LU-12 EXHIBIT: 4-5 *Continued*

Background and Intent, *Continued*
Boundary C: Community Based Boundary, *Continued*

jurisdictions with zoning powers for all projects in the green zone that are noise sensitive (residential, schools, churches, etc.). This review would allow the airport to compare the proposed project with the most current DNL contours available at that time. If the 65 DNL contours extend into the area and the project falls within the 65 DNL, then the recommendation from the airport could be less favorable and may include a request for an avigation easement. If the project is outside the noise contours then the recommendation could be more of a notification and suggested ways to reduce noise. This approach allows the airport to be able to use the most recent contours while having a fixed boundary that provides more concrete protection.

Because there are nine jurisdictions with various land use and zoning regulations, implementation would require the assistance of the Mid-Ohio Regional Planning Agency (MORPC) or some similar organization to help coordinate and facilitate this process.

Relationship to 1999 NCP: New measure

Land Use Compatibility Improvement: This measure would establish a fixed boundary around the airport within which consistent land use planning for compatibility purposes can be conducted.

Responsible Implementing Parties: Franklin County, Jefferson Township, Mifflin Township, City of Gahanna, City of Columbus, Bexley, Whitehall, Reynoldsburg, Truro Township, MORPC, and Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

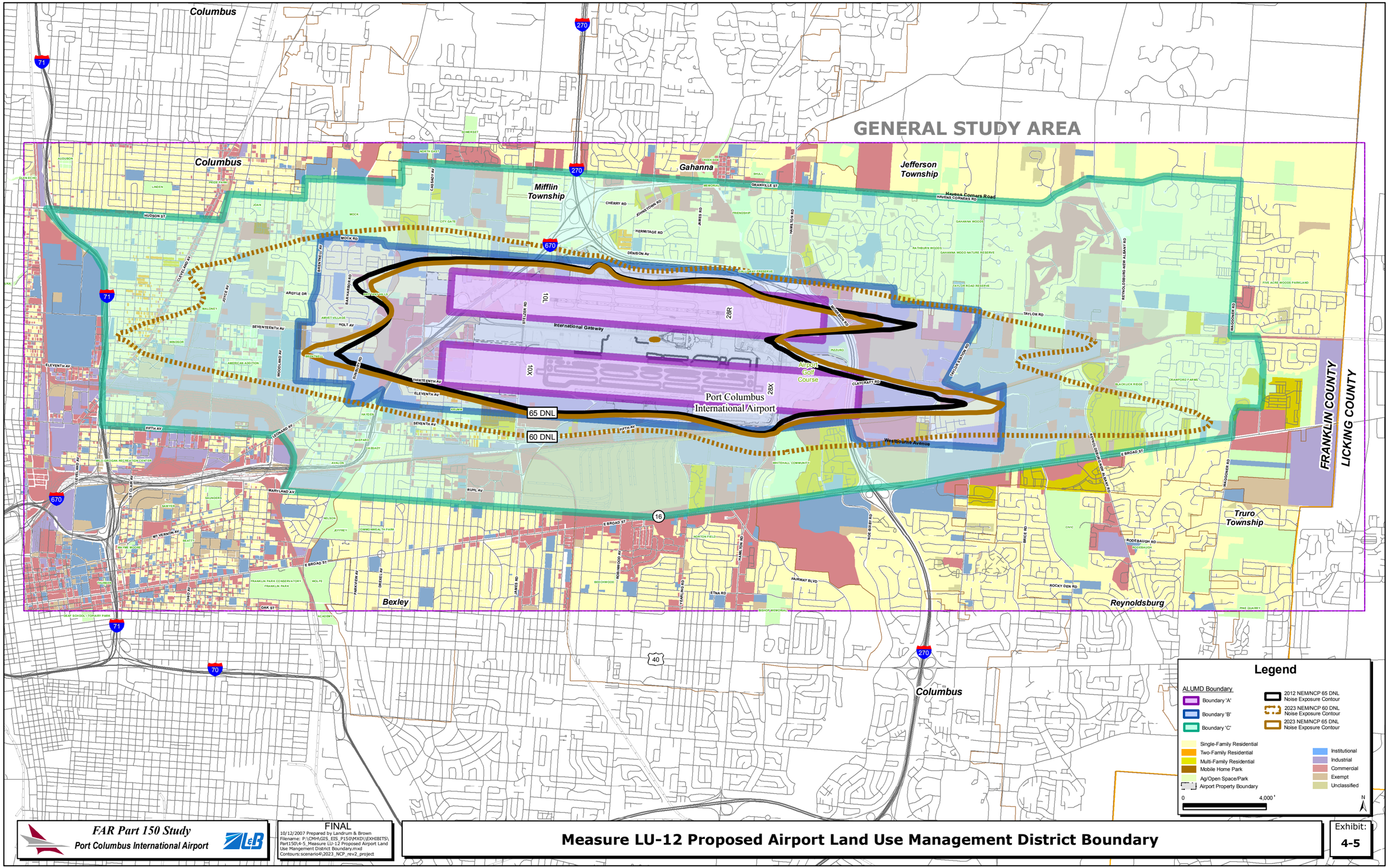
Steps:

- Secure Federal Aviation Administration (FAA) funding and CRAA budget approval.
- Contract with MORPC (or similar agency) to assist with definition and initial contacts with jurisdictions.
- Identify the boundary of the ALUMD
- Request that local jurisdictions incorporate the ALUMD into their current land use planning documents.

Costs: The costs of implementing this measure will include contracting with MORPC (or similar agency) to coordinate and facilitate the implementation of this measure. There will also be administrative costs of the CRAA and local jurisdictions. Total cost estimated at approximately $50,000.

Schedule: This measure would be implemented after FAA approval and obtaining FAA and CRAA funding.

Effects on Other Programs/Measures: This measure would enable measures LU-4, LU-6, LU-7, LU-8, LU-9, LU-10, and any other future measures that would recommend land use control strategies within the airport area.



FAR Part 150 Study
Port Columbus International Airport

FINAL
10/12/2007 Prepared by Landrum & Brown
Filename: P:\CMH\GIS_EIS_P150\MXD\\EXHIBITS\Part150\4-5_Measure LU-12 Proposed Airport Land Use Mangement District Boundary.mxd
Contours:scenario4\2023_NCP_rev2_project

Measure LU-12 Proposed Airport Land Use Management District Boundary

Exhibit: **4-5**

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-1

Description: Maintain the noise abatement elements of the FAA ATCT Tower Order

Background and Intent: The Columbus Regional Airport Authority (CRAA) has and will continue to work with the Port Columbus International Airport (CMH) Air Traffic Control Tower (ATCT) to implement noise abatement procedures. This includes insuring that the ATCT Tower Order clearly and correctly states the noise abatement procedures in a way that reflects the intent of the measure. The CRAA will work with the ATCT to update the existing Tower Order to recognize the recommended measures from this Part 150 Update.

Relationship to 1999 NCP: Continues approved Measure PM-1 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: Does not specifically improve land use compatibility, however, it does help to insure that the intended procedures are being implemented by the ATCT.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA), FAA

Implementation Steps, Costs, and Phasing:

Steps: After FAA approval of the Part 150 Noise Compatibility Program, the CRAA would work with the ATCT to update the Tower Order as necessary.

Costs: No additional costs.

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-2

Description: Maintain the Noise Management Office for noise compatibility program management.

Background and Intent: Typically, the management of an ongoing Noise Compatibility Plan (NCP) involves the designation of a person (or persons) that will manage the short-term and long-term activities related to noise at the airport. The Part 150 NCP may involve the implementation of several actions that will require the close management and coordination by the facilitator of the NCP. The Columbus Regional Airport Authority (CRAA) has established a Noise Management Office with a staff position dedicated to noise project administration, including receiving and responding to noise complaints, reviewing compliance with noise abatement procedures, evaluating progress on implementing land use recommendations, etc.

Relationship to 1999 NCP: Continues approved Measure PM-2 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: No specific improvement to land use compatibility, but improved communications between the airport and neighboring communities.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: No additional steps.

Costs: None

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: The measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-3

Description: Maintain an ongoing public involvement program regarding the noise compatibility program.

Background and Intent: The basic elements of the Part 150 Study public involvement program could be refined and adapted as continuing program elements. Components of the program include: holding routine public workshops, routine distribution of newsletters, and sending out press releases. Other elements could be added such as tours of the noise abatement office and demonstration of the noise and flight track monitoring system.

Relationship to 1999 NCP: Continues approved Measure PM-3 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: No specific improvement to land use compatibility, but improved communications between the airport and neighboring communities would identify and correct possible deviations from approved flight operating procedures that could be incompatible with surrounding land use.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: Continuation of current outreach efforts. No new steps required.

Costs: $25,000 annually to produce outreach materials such as the noise complaint hotline annual report and pilot awareness materials

Schedule: The program has been initiated and will continue without interruption.

Effects on Other Programs/Measures: This measure is not expected to impact other measures or existing programs.

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-4

Description: Maintain the noise and flight track monitoring system, and expand and upgrade the system as necessary. Add four permanent NMTs and upgrade the computer software and hardware as necessary

Background and Intent: The Columbus Regional Airport Authority (CRAA) has an Airport Noise & Flight Track Monitoring System, which is located at Port Columbus International Airport (CMH). This system provides aircraft flight tracks and noise monitor data (for noise monitors located at CMH and LCK) for all three airports managed by the CRAA (CMH, Rickenbacker International (LCK), and Bolton Field (TZR)). Twelve permanent noise monitors were purchased (with 80% FAA funds and 20% local funds) and placed in the community surrounding CMH. The system provides data that can be used by the CRAA noise office to monitor flight events, noise levels, and to assist in responding to noise complaints. However, due to the nature of the operations at CMH, a number of enhancements to the Airport Noise & Flight Track Monitoring System would improve the ability of the CRAA to collect and analyze data for CMH.

These enhancements include:

- The purchase and installation of up to eight additional permanent noise monitors to be located around the airport.
- Other system enhancements as technology improves.

Relationship to 1999 NCP: Continues approved Measure PM-4 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: Improvements to the system would enable the Airport's Noise Office to better respond to the needs of the community.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps:

- Develop system enhancement specifications and budget.
- Seek to obtain Federal Aviation Administration (FAA) participation in funding of the enhancements.
- Implement upgrades and incorporate new data into existing studies.

Costs: Eight permanent noise monitors: $130,000 to $160,000.

Schedule: Could be implemented immediately upon FAA approval and funding by FAA and CRAA.

Effects on Other Programs/Measures: This measure will provide additional noise and operations data that can be used in PM-2 and PM-3.

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-5

Description: Routinely update the noise contours and periodically update the noise program.

Background and Intent: The NEMs are likely to become outdated and will need to be updated periodically. The NEMs should be updated every two to three years to consider changes in operating levels and patterns, as well as updates of the noise modeling software. In addition, the NEMs should be updated in accordance with the Federal Aviation Administration's (FAA's) guidelines for determining what constitutes a potentially significant increase in operations (17 percent increase in the area impacted by 65+ DNL). The NCP should be updated every five years, or as necessary, to reflect larger changes in the nature of aircraft noise surrounding the airport. Should any development, such as runway realignments or significant modifications to ground facilities, enlarge the area of incompatible use exposed to aircraft noise above 65 Day-Night Average Sound Level (DNL), the NCP should be updated prior to the implementation of those improvements. A full update may not be required, but rather, a targeted assessment of the changes occasioned by specific development projects may suffice to bring the NCP to conformity and to qualify additional areas for NCP programs, if appropriate. Due to the proposed replacement runway, the NEM will be updated at a minimum 18 to 20 months after the opening of the proposed runway.

Relationship to 1999 NCP: Continues approved Measure PM-5 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: No specific improvement to land use compatibility; the measure provides for continuing planning and care in assuring the greatest compatibility between the airport and its environs.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps:

- Evaluate the need of NEM or NCP update based on conditions.
- If appropriate, retain a qualified planning consultant to conduct the update(s).
- Complete and publish the results, modifying or expanding NCP programmatic boundaries as appropriate at the time of update.

Costs: Each update of the NEMs could be accomplished for approximately $100,000. The NCP could be updated at a cost of $500,000 or less, assuming moderate facility changes. Substantial changes could increase the costs of NCP update significantly. Both updates are eligible for funding through FAA AIP grant monies at 80 percent FAA participation.

Schedule: NEM update in 2010/2011, with NCP update as needed. At a minimum the NEMs will be updated 12 to 18 months after the opening of the proposed runway.

Effects on Other Programs/Measures: Reviews all other programs and measures to assure their incorporation into the description of the noise condition at the airport.

NOISE COMPATIBILITY IMPLEMENTATION MEASURE: PM-6

Description: Establish a land use compatibility task force which meets periodically to discuss issues relevant to airport noise compatibility planning

Background and Intent: A meeting was held on October 28, 1998, to discuss the Airport Environs Overlay (AEO) district. Representatives from the City of Columbus, Franklin County, Port Columbus International Airport, Ohio State University Airport, and Rickenbacker International Airport participated in the meeting. The goal of the meeting was to achieve consensus amongst all the airports and jurisdictions that currently have an AEO in place regarding an approach to updating the AEO.

The group should continue to meet, as needed, to discuss land use compatibility planning issues that relate to all airports in the Columbus area. Jurisdictions that do not currently have an AEO in place should also be invited to participate.

Relationship to 1999 NCP: Continues approved Measure PM-6 of 1999 Part 150 NCP.

Land Use Compatibility Improvement: The committee is intended to communicate the nature of land use compatibility to the community and assist with implementation of land use measures.

Responsible Implementing Parties: Columbus Regional Airport Authority (CRAA)

Implementation Steps, Costs, and Phasing:

Steps: At this point the committee is no longer active, however if it is determined the committee is needed, the following steps would be taken.

- Identify organizations and communities desired for participation
- Request each organization/community to identify/assign a participant (continuation of membership by interested current members of the Part 150 PAC would be encouraged)
- Establish agenda and committee goals
- Begin meetings

Costs: Administrative costs for printing, staff support, report production, meeting facilities and refreshments, and potentially special speaker costs. Total cost estimated at approximately $5,000 to $15,000 annually depending on frequency and type of meetings.

Schedule: Meetings as necessary, with continuing participation by all members during interim periods.

Effects on Other Programs/Measures: None

4.1 NOISE COMPATIBILITY PROGRAM MAP

The noise abatement measures included in the 2007 NCP and presented in this chapter have been developed to minimize noise impacts as much as possible without placing undue restrictions on the operation of the airport. Some of the recommendations included in the 2007 NCP would change the pattern of aircraft noise at CMH. **Exhibit 4-6, *Future (2012) NEM/NCP Noise Contour***, constitutes the official NEM for the year 2012, and is reflective of implementation of all of the recommended noise abatement measures.

Table 4-2 compares the noise impacts for the Future (2012) Baseline and the Future (2012) NEM/NCP. There are 700 housing units and no noise-sensitive facilities (churches, schools, libraries, hospitals, and nursing homes) within the Future (2012) Baseline noise exposure contour. Within the Future (2012) NEM/NCP, there are 473 housing units and no noise-sensitive facilities. In the Future (2012) NEM/NCP condition, all housing units have been sound insulated or will be eligible for sound insulation with the approval of the NCP.

Table 4-2
COMPARISON OF FUTURE (2012) BASELINE AND FUTURE (2012) NEM/NCP HOUSING, POPULATION AND NOISE-SENSITIVE FACILITIES INCOMPATIBILITIES
Port Columbus International Airport

	TOTAL HOUSING UNITS				TOTAL POPULATION				NOISE-SENSITIVE FACILITIES (Churches, Schools, Libraries, Hospitals, Nursing Homes)			
CONDITION	65-70 DNL	70-75 DNL	75+ DNL	Total	65-70 DNL	70-75 DNL	75+ DNL	Total	65-70 DNL	70-75 DNL	75+ DNL	Total
Future (2012) Baseline	700	0	0	700	1,729	0	0	1,729	0	0	0	0
Future (2012) NEM/NCP	473	0	0	473	1,168	0	0	1,168	0	0	0	0

Source: Landrum & Brown, 2007 [contour: 2012_WP_rev7]

4.2 NOISE COMPATIBILITY PROGRAM COSTS

The CRAA, supplemented by funding from the FAA, will incur the direct costs associated with the recommended NCP measures. Costs for completion of the program have been estimated in 2007 dollars and are presented in **Table 4-3**. These costs are divided into annual or one-time expenditures, with CRAA carrying the vast majority of responsibility for the costs of the program measures. The CRAA-funded mitigation actions recommended for implementation are eligible, however, for Federal matching funds amounting to approximately 80 percent of the total program cost. The costs of each individual measure are detailed earlier in this chapter.

GENERAL STUDY AREA

Mifflin Township

Gahanna

Jefferson Township

Truro Townhsip

Bexley

Whitehall

Reynoldsburg

FRANKLIN COUNTY

LICKING COUNTY

Port Columbus International Airport

10L

28R

10X

28X

75 DNL

70 DNL

65 DNL

60 DNL

Legend

Future (2012) NEM-NCP Noise Exposure Contour

Future (2012) NEM-NCP Noise Exposure Contour - 60 DNL

Single-Family Residential

Two-Family Residential

Multi-Family Residential

Mobile Home Park

Ag/Open Space/Park

Airport Property Boundary

Institutional

Industrial

Commercial

Exempt

Unclassified

0 4,000' 1 Inch = 4,000 Feet N

FAR Part 150 Study

Port Columbus International Airport

FINAL

10/8/2007 Prepared by Landrum & Brown

Filename: P:\CMH\GIS_EIS_P150\MXD\EXHIBITS\Part150\4-6_Future (2012) NEM-NCP Noise Exposure Contour.mxd contour:scenario-4

Future (2012) Noise Exposure Map/Noise Compatibility Program

Exhibit: 4-6

Annual costs consist of the administrative expenses to implement a measure or to operate aircraft according to the recommended measures. One-time costs include the expenditures to implement major mitigation programs such as the sound insulation program. The total estimated cost for all NCP recommendations is between $11,830,000 and $11,870,000. This assumes a 100 percent participation in LU-1, which recommends the 247 homes be offered sound insulation.

Table 4-3
NCP IMPLEMENTATION COSTS
Port Columbus International Airport

TYPE OF MEASURE	DIRECT COST TO CRAA	DIRECT COST TO LOCAL GOVERNMENT	DIRECT COST TO USERS
NOISE ABATEMENT			
- Flight Procedures	$55,000	None	None
- Noise Berm/Wall	$1,500,000	None	None
- Barrier B Upgrade	$800,000	None	None
Subtotal	***$2,355,000***	***None***	***None***
LAND USE MANAGEMENT			
- Expand Sound Insulation*	$8,645,000	None	None
- Implement ALUMD	$70,000	*Minimal*	None
Subtotal	***$8,715,000***	***Minimal***	**None**
PROGRAM MANAGEMENT			
- Public Involvement	$25,000 annually	None	None
- 8 Additional Noise Monitors	$130,000 - $160,000	None	None
- Updating NEM and NCP	$600,000	None	None
- Miscellaneous	$5,000 to $15,000 annually	None	None
Subtotal	***$760,000 to $800,000***	***None***	**None**
TOTAL:	**$11,830,000 to $11,870,000**	**Minimal**	**None**

* Total cost assumes 100 percent participation in LU-1.

Notes: The CRAA-funded mitigation actions recommended for implementation are eligible for Federal matching funds amounting to approximately 80 percent of the total program cost.

Source: Landrum & Brown, 2007

4.3 IMPLEMENTATION SCHEDULE

As shown in Table 4-1, the existing noise abatement measures (NA-1 through NA-4) are from the previously approved 1999 Part 150 NCP and can continue uninterrupted. Noise abatement measure NA-5 is being withdrawn. The recommended air traffic noise abatement measures (NA-6 and NA-7) will require FAA approval to become part of the NCP. The environmental analysis required by National Environmental Policy Act of 1969 (NEPA) will be conducted in the ongoing EIS. The implementation of recommended noise abatement measure NA-8 would begin in 2010. Implementation of noise abatement measure NA-9 can begin after FAA approval of the Part 150 Study, which is expected in the summer of 2008.

The existing land use mitigation measures (LU-2 and LU-5) are on-going measures that will continue uninterrupted. The preventive land use measures (LU-4, LU-6, LU-7, and LU-8) can be implemented immediately. Land use measures LU-1, LU-9, LU-10, and LU-12 require FAA approval of the NCP prior to being funded. Should the CRAA wish to proceed, implementation could begin in 2009 and continue for a number of years depending on the number of property owners participating and the availability of local and Federal funds.

Implementation measures PM-1, PM-2, PM-3, PM-5 and PM-6 are continuations of previous measures and can be implemented immediately. Implementation measure PM-4 requires FAA approval of the NCP. It is anticipated that the FAA will issue a Record of Approval of this NCP sometime during the summer of 2008.