SCOTTSDALE AIRPORT

14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Noise Exposure Maps

CITY OF SCOTTSDALE

SCOTTSDALE AIRPORT

14 CFR Part 150
Noise Compatibility Study

NOISE EXPOSURE MAPS UDPATE

Prepared For

The City of Scottsdale, Arizona

By

Coffman Associates, Inc.

September 2004

The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration (FAA) as approved under the Airport and Airway Improvement Act of 1982, as amended. The contents of this report do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein, nor does it indicate that the proposed development is environmentally acceptable in accordance with applicable public laws.

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NOISE EXPOSURE MAPS UPDATE

NOISE EXPOSURE MAPS

This document is the Noise Exposure Map document prepared for the City of Scottsdale, owner and operator of Scottsdale Airport. The Noise Exposure Maps presented in this document are intended to update and supersede the Noise Exposure Maps accepted by the Federal Aviation Administration (FAA) on June 6, 1996.

The Noise Exposure Maps documentation for the Airport presents current aircraft noise impacts and anticipated impacts in five years. The documentation contains sufficient information so that reviewers unfamiliar with local conditions and the local public unfamiliar with the technical aspects of aircraft noise can understand the findings.

This Noise Exposure Maps document includes the first four chapters of the complete Title 14, Code of Federal Regulations (CFR), Part 150 Noise Compatibility Study. Chapter One, Inventory, presents an overview of the airport, airspace, aviation facilities, existing land uses, and local land use policies and regulations.

Chapter Two, Aviation Forecasts, examines the existing and potential demand for aviation activity at the airport.

Chapter Three, Aviation Noise, explains the methodology used to develop aircraft noise contours. It also describes the key input assumptions used for noise modeling.

Chapter Four, Noise Impacts, presents existing and forecast aircraft noise exposure based on the assumption of no additional noise abatement efforts. This provides baseline data for

evaluating potential noise abatement strategies in the second part of the study. It also analyzes the impact of the baseline aircraft noise on noise-sensitive land uses and the resident population.

Supplemental information is provided in appendices and Technical Information Papers. Appendix A lists the members of the Technical Advisory Team (TAT) that were consulted throughout the planning process. It also includes an explanation of the role of the TAT in the process.

Appendix B, Coordination, Consultation, and Public Involvement, summarizes the planning process, local coordination, and the public involvement process.

Appendix C contains the INM Assumptions and Output Report. This report provides detailed tables which depict reported aircraft operations, runway use, and day/nighttime operation split by aircraft type.

Five Technical Information Papers are provided for reference and background. These papers include the Glossary of Noise Compatibility Terms, The Measurement and Analysis of Sound, Effects of Noise Exposure, Measuring the Impact of Noise on People, and Noise and Land Use Compatibility Guidelines.

The official Noise Exposure Maps are presented in this section following page viii. For the convenience of FAA reviewers, the FAA's official Noise Exposure Map checklist is presented on pages iii through vii.

14 CFR, PART 150
NOISE EXPOSURE MAP CHECKLIST

AIRPORT NAME: ***Scottsdale Airport***
Scottsdale, Arizona

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 14 CFR Part 150:		
1. a NEM only?	Yes	Title Page, p. i
2. a NEM and NCP?	No	
3. a revision to NEMs which have previously been determined by FAA to be in compliance with Part 150?	No	
B. Is the airport name and the qualified airport operator identified?	Yes	Title Page, p. i
C. Is there a dated cover letter from the airport operator which indicates the documents are submitted under Part 150 for appropriate FAA determination?	Yes	p. viii
II. CONSULTATION: [150.21(b), A150.105(a)]		
A. Is there a narrative description of the consultation accomplished, including opportunities for public review and comment during map development?	Yes	Appendix B; and supplemental volume, *Supporting Information on Project Coordination and Local Consultation*
B. Identification:		
1. Are the consulted parties identified?	Yes	Appendices A and B; and supplemental volume, *Supporting Information on Project Coordination and Local Consultation*
2. Do they include all those required by 150.21(b) and A150.105(a)?	Yes	Appendices A and B; and supplemental volume, *Supporting Information on Project Coordination and Local Consultation*
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	p. viii; Appendix B, and supplemental volume, *Supporting Information on Project Coordination and Local Consultation*
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 B, and supplemental volume, *Supporting Information on Project Coordination and Local Consultation*

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	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	See NEM Maps, Exhibits 1 & 2 after p. viii
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?	No	
3. If the answer to 1 & 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	Current year is labeled 2004, based on actual operations for that year (includes estimate of operation when tower is closed).
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?	N/A	
2. If the 5-year map is based on program implementation:		
a. are the specific program measures which are reflected on the map identified?	N/A	
b. does the documentation specifically describe how these measures affect land use compatibilities depicted on the map?	N/A	
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 map?	N/A	

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IV. **MAP SCALE, GRAPHICS, AND DATA REQUIREMENTS: [A150.101, A150.103, A150.105, 150.21(a)]**		
A. Are the maps 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	See NEM Maps after p. viii
B. Is the quality of the graphics such that required information is clear and readable?	Yes	See NEM Maps after p. viii
C. Depiction of the airport and its environs.		
1. Is the following graphically depicted to scale on both the existing conditions and 5-year maps:		
a. airport boundaries?	Yes	See NEM Maps after p. viii
b. runway configurations with runway end numbers?	Yes	See NEM Maps after p. viii
2. Does the depiction of the off-airport data include:		
a. a land use base map depicting streets and other identifiable geographic features?	Yes	See NEM Maps after p. viii
b. the area within the 65 Ldn (**or beyond, at local discretion**)?	Yes	See NEM Maps after p. viii
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	See NEM Maps after p. viii
D. 1. Continuous contours for at least the 65, 70, and 75 Ldn?	Yes	See NEM Maps after p. viii
2. Based on current airport and operational data for the existing condition year NEM, and forecast data for the 5-year NEM?	Yes	See 2009 NEM after p. viii; Chapter Two, p. 2-1, pp. 2-8 - 2-22
E. Flight tracks for the existing condition and 5-year forecast timeframes (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	Chapter Three, Exhibits 3E, 3F,and 3G after p. 3-8
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	Chapter Three, Exhibits 3L after p. 3-18
G. Noncompatible land use identification:		
1. Are noncompatible land uses within at least the 65 Ldn depicted on the maps?	Yes	See NEM Maps after p. viii
2. Are noise-sensitive public buildings identified?	Yes	See NEM Maps after p. viii

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	Yes/No/NA	Page No./ Other Reference
3. Are the noncompatible uses and noise-sensitive public buildings readily identifiable and explained on the map legend?	Yes	See NEM Maps after p. viii
4. Are compatible land uses, which would normally be considered noncompatible, explained in the accompanying narrative?	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 Three, pp. 3-2 - 3-8
2. Are the underlying technical data and planning assumptions reasonable?	Yes	Chapter Three, pp. 3-2 - 3-8
B. Calculation of Noise Contours:		
1. Is the methodology indicated?	Yes	Chapter Three, p. 3-2
a. is it FAA approved?	Yes	Chapter Three, p. 3-2
b. was the same model used for both maps?	Yes	Chapter Three, p. 3-2
c. has AEE approval been obtained for use of a model other than those which have previous blanket FAA approval?	N/A	
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	Chapter Three, pp. 3-4 - 3-6. No calibrations done. Some composite aircraft descriptors used.
b. if so, does this have written approval from AEE?	N/A	All aircraft INM designators used are on AEE's pre-approved list of substitutions.
3. If noise monitoring was used, does the narrative indicate that Part 150 guidelines were followed?	Yes	Our measurement program is discussed in Chapter 3 and can be described as a "survey type" program. Please see FAA AC 150/5020-1, *Noise Control and Compatibility Planning for Airports*, pp. 12-17. Our results indicate reasonable agreement between measurements and INM predictions. Where the measured values deviated from INM predictions, it was explained by operations differing from average annual conditions

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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 Three, p. 3-9, Chapter Four, pp. 4-3 - 4-4, T.I.P., Noise and Land Use Compatibility Guidelines
C. Noncompatible Land Use Information:		
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 Four, pp. 4-7 - 4-10
2. Does the documentation indicate whether Table 1 of Part 150 was used by the airport operator?		Chapter Four, pp. 4-2 -4-3
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?	N/A	
(2) does the narrative include the airport operators complete substitution for Table 1?	N/A	
3. Does the narrative include information on self-generated or ambient noise where compatible/noncompatible land use identification consider non-airport/aircraft sources?	No	
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	
5. Does the narrative describe how forecasts will affect land use compatibility?	Yes	Chapter Four, pp. 4-6 - 4-11
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	Certification statements on NEM Maps and p. viii
B. Has the operator certified in writing that each map and description of consultation and opportunity for public comment are true and complete?	Yes	Certification statements on NEM Maps and p. viii

SPONSOR'S CERTIFICATION

The Noise Exposure Maps and accompanying documentation for Scottsdale Airport, including the description of consultation and opportunity for public involvement, are submitted in accordance with 14 CFR Part 150, and hereby certified as true and complete to the best of my knowledge and belief. It is hereby certified that adequate opportunity has been afforded interested persons to submit views, data, and comments on the Noise Exposure Maps and forecasts. It is further certified that the 2004 Noise Exposure Map and supporting data are fair and reasonable representations of existing conditions at the airport.

_____
Date of Signature

_____
Scott T. Gray
Airport Director
Scottsdale Airport
City of Scottsdale