

# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE



### SCOTTSDALE AIRPORT

### 14 CFR Part 150 Noise Compatibility Study

### NOISE COMPATIBILITY PROGRAM UPDATE

### **Prepared For**

The City of Scottsdale, Arizona

 $\mathbf{B}\mathbf{y}$ 

Coffman Associates, Inc.

### **May 2005**

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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# Appendix A WELCOME TO THE TECHNICAL ADVISORY TEAM

Appendix B COORDINATION, CONSULTATION, AND PUBLIC INVOLVEMENT

Appendix C EVALUATION OF CURRENT NOISE COMPATIBILITY PROGRAM

Appendix D
INM OUTPUT REPORT
(In the Noise Exposure Maps Document)

Appendix E DISCUSSION OF NOISE-BASED USE RESTRICTIONS

Appendix F
PROJECT IMPLEMENTATION MATERIALS

### **TECHNICAL INFORMATION PAPERS (TIPS)**

GLOSSARY OF NOISE COMPATIBILITY TERMS
THE MEASUREMENT AND ANALYSIS OF SOUND
EFFECTS OF NOISE EXPOSURE
MEASURING THE IMPACT OF NOISE ON PEOPLE
AIRCRAFT NOISE AND LAND USE COMPATIBILITY GUIDELINES
FEDERAL AVIATION NOISE REGULATIONS



Preface

# NOISE COMPATIBILITY PROGRAM

### Preface NOISE COMPATIBILITY PROGRAM

This document is the Noise Compatibility Program (NCP) Update prepared for Scottsdale Airport, which is owned and operated by the City of Scottsdale, Arizona. The NCP is the second of two parts required for a Code of Federal Regulation (CFR) Title 14, Part 150 Noise Compatibility Study. It includes Chapters Five, Six, and Seven of the study, in addition to five appendices. The first volume. Noise Exposure Maps (NEM), was published in September 2004.

Chapter Five of the Noise Compatibility Program, Noise Abatement Alternatives, discusses and analyzes potential methods of reducing or shifting aircraft noise to be less disturbing to noise-sensitive areas.

Chapter Six, Land Use Alternatives, analyzes potential land use planning and zoning techniques to prevent the development of new noise-sensitive land uses in areas exposed to aircraft noise. Aircraft noise mitigation measures are also presented in Chapter Six.

Chapter Seven presents the Noise Compatibility Plan. The plan is organized into three elements: noise abatement, land use management, and program management. The first two elements are based on the findings from Chapters Four and Five. The program management element includes measures to administer, refine, and update the overall program as needed in the future.

Appendix A lists the members of the Technical Advisory Team (TAT) who were consulted throughout the planning process.

Appendix B contains information regarding project coordination and local consultation.

Appendix C is an evaluation of Scottsdale Airport's current Noise Compatibility Program.

Appendix D is the output from the Integrated Noise Model. This appendix is printed in the *Noise Exposure Maps* document.

Appendix E contains a discussion of noise-based airport use restrictions.

 $\mathbf{F}$ Appendix contains program implementation materials including sample building model codes. subdivision regulations, land use tools currently used by the City Scottsdale, sample zoning ordinances from communities that regulate land use within noise contours less than 65 DNL, and pilot noise awareness steps.

For the convenience of FAA reviewers, the FAA's official Noise Compatibility Program Checklist is included on pages iii through vii. The sponsor's certification statement is on page viii.

AIRPORT NAME: Scottsdale Airport REVIEWER: \_\_\_\_\_\_\_
Scottsdale, Arizona

	Scottsaate, Artzona		Page No.
		Yes/No/NA	Other Reference
I.	IDENTIFICATION AND SUBMISSION OF PROGRAM:  A. Submittal is properly identified:  1. Part 150 NCP?  2. NEM and NCP together?  3. Program revision?	Yes No Yes	Title Page; p. i
	B. Airport and Airport Operator's name identified?	Yes	Title Page; p. i
	C. NCP transmitted by airport operator cover letter?	Yes	
II.	CONSULTATION: [150.23]  A. Documentation includes narrative of public participation and consultation process?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	B. Identification of consulted parties: 1. all parties in 150.23(c) consulted?	Yes	Appendix A; Appendix B; and supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	2. public and planning agencies identified?	Yes	Appendix A; Appendix B; and supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	3. agencies in 2, above, correspond to those indicated on the NEM?	Yes	Appendix A; Appendix B; and supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	C. Satisfies 150.23(d) requirements?  1. documentation shows active and direct participation of parties in B, above?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	2. active and direct participation of general public?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
	3. participation was prior to and during development of NCP and prior to submittal to FAA?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"

	Yes/No/NA	Page No. Other Reference
4. indicates adequate opportunity afforded to submit views, data, etc.?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
D. Evidence included of notice and opportunity for a public hearing on NCP?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
E. Documentation of comments:  1. includes summary of public hearing comments, if hearing was held?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
2. includes copy of all written material submitted to operator?	Yes	Appendix B; supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
3. includes operator's responses/disposition of written and verbal comments?	Yes	Supplemental volume titled "Supporting Information on Project Coordination and Local Consultation"
F. Informal agreement received from FAA on flight procedures?	Yes	The local tower manager and FAA-Phoenix TRACON manager indicated qualified acceptance of noise abatement measures and was involved in the Technical Advisory Team (TAT) meetings. FAA representative from Airports Division of the Western Pacific Region also attended TAT meetings and indicated qualified agreement with noise abatement measures.

AIRPORT NAME: Scottsdale Airport REVIEWER: \_\_\_\_\_\_\_
Scottsdale, Arizona

Scottsaate, Artzona		Page No.
	Yes/No/NA	Other Reference
	100/10/11/1	other reference
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:		
<ol> <li>Map documentation either included or incorporated by reference?</li> </ol>	N/A	
2. Maps previously found in compliance by FAA?	N/A	
3. Compliance determination still valid?	N/A	
4. Does 180-day period have to wait for map compliance finding?	N/A	
B. Revised NEMs submitted with program: (Review using NEM		
checklist if map revisions included in NCP submittal.)		
1. Revised NEMs included with program?	N/A	
2. Has airport operator requested FAA to make a determination on		
the NEMs when NCP approval is made?	N/A	
C. If program analysis uses noise modeling:		
1. INM, HNM, or FAA-approved equivalent?	N/A	
2. Monitoring in accordance with A150.5?	N/A	
D. Existing condition and 5-year maps clearly identified as the official		
NEMs?	N/A	
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,	37	Cl
easements, and development rights?	Yes	Chapter 6, pp. 6-11 – 6-27
barriers, acoustical shielding, public building soundproofing?	Yes	Chapter 5, pp. 5-14 – 5-17
3. preferential runway system?	Yes	Chapter 5, pp. 5-5 – 5-6
4. flight procedures?	Yes	Chapter 5, pp. 5-6 – 5-12
5. restriction on type/class of aircraft (at least one restriction below		
must be checked)		
a. deny use based on Federal standards?	Yes	Chapter 5, pp. $5-22 - 5-24$
b. capacity limits based on noisiness?	Yes	Chapter 5, pp. 5-27
c. noise abatement takeoff/approach procedure?	Yes	Chapter 5, pp. 5-17 – 5-22
d. landing fees based on noise or time of day?	Yes	Chapter 5, pp. 5-26 – 5-27
e. nighttime restrictions?	Yes	Chapter 5, pp. 5-25 – 5-26
6. other actions with beneficial impact?	Yes	Chapter 5, pp. 5-27 – 5-31
7. other FAA recommendations?	N/A	

	Scotts dale, Arizona		
		Yes/No/NA	Page No. Other Reference
В.	Responsible implementing authority identified for each considered alternative?	Yes	Chapter 5, pp. 5-36, 5-39 – 5- 40, Chapter 6, Table 6C, p. 6- 23
C.	Analysis of alternative measures: 1. measures clearly described?	Yes	Chapter 5, pp. 5-4 – 5-40, Chapter 6, pp. 6-6 – 6-22
	2. measures adequately analyzed?	Yes	Chapter 5, pp. 5-4 – 5-40, Chapter 6, pp. 6-6 – 6-22
	3. adequate reasoning for rejecting alternatives?	Yes	Chapter 5, pp. 5-4 – 5-40, Chapter 6, pp. 6-6 – 6-22
D.	Other actions recommended by the FAA: Should other actions be added? (list separately or on back of this form actions and discussions with airport operator to have them included prior to the start of the 180-day cycle)	N/A	
11	TERNATIVES RECOMMENDED FOR IMPLEMENTATION: 0.23(e), B150.7(c), 150.35(b), B150.5]  Document clearly indicates:  1. alternatives recommended for implementation?	Yes	Chapter 7, pp. 7-4 – 7-25, Table 7D, p. 7-28
	<ol><li>final recommendations are airport operators, not those of consultant or third party?</li></ol>	Yes	Sponsor's Certification, p. viii
В.	Do all program recommendations: 1. relate directly or indirectly to reduction of noise and noncompatible land uses?	Yes	Chapter 7, pp. 7-4 – 7-25
	<ol><li>contain description of contribution to overall effectiveness of program?</li></ol>	Yes	Chapter 7, pp. 7-4 – 7-25
	3. noise/land use benefits quantified to extent possible?	Yes	Chapter 5, pp. 5-32 – 5-40, Chapter 7, pp. 7-25 – 7-27
	4. include actual/anticipated effect on reducing noise exposure within noncompatible area shown on NEM?	Yes	Chapter 7,p. 7-11, Exhibits 7A, 7B, and 7C
	5. effects based on relevant and reasonable expressed assumptions?	Yes	Chapter 5, pp. 5-32 – 5-40, Table 5L, p. 5-40, Chapter 7, pp. 7-4 – 7-25, Table 7D, p. 7-28
	6. have adequate supporting data to support its contribution to noise/land use compatibility?	Yes	Chapter 5, Chapter 6, Chapter 7
C.	Analysis appears to support program standards set forth in 150.35(b) and B150.5?	Yes	Chapter 5, Chapter 6, Chapter 7

AIRPORT NAME: Scottsdale Airport REVIEWER: \_\_\_\_\_\_\_
Scottsdale, Arizona

	Scottsaate, Artzona		
		Yes/No/NA	Page No. Other Reference
D. W 1.	Then use restrictions are recommended:  are alternatives with potentially significant noise/compatible land use benefits thoroughly analyzed so that appropriate comparisons and conclusions can be made?	N/A	No use restrictions recommended
2.	determination on start of 180 days?	N/A	
	o the following also meet Part 150 analytical standards: formal recommendations which continue existing practices?	Yes	Chapter 7, pp. 7-4 – 7-8, 7- 12 – 7-19, 7-20 – 7-21
2.	new recommendations or changes proposed at end of Part 150 process?	Yes	Chapter 7, pp. 7-9 – 7-11, 7-19 – 7-20, 7-21 – 7-25
	ocumentation indicates how recommendations may change reviously adopted plans?	Yes	Chapter 7, pp. 7-4 – 7-25
G. Do	ocumentation also: identifies agencies which are responsible for implementing each recommendation?	Yes	Sponsor's Certification on p. viii. By approving NCP, City of Scottsdale has agreed to seriously consider implementation of the measures for which it has sole responsibility, provided funding is available. It has also agreed to encourage other organizations and agencies to take and recommend actions per NCP.
2.	indicates whether those agencies have agreed to implement?	Yes	Chapter 7, pp. 7-4 – 7-25, Table 7D, p. 7-28
3.	indicates essential government actions necessary to implement recommendations?	Yes	Chapter 7, pp. 7-4 – 7-25, Table 7D, p. 7-28
H. Tin 1.	neframe: includes agreed-upon schedule to implement alternatives?	Yes	Chapter 7, p. 7-1, pp. 7-4 – 7-25, Table 7D, p. 7-28
2.	indicates period covered by the program?	Yes	Chapter 7, p. 7-1, pp. 7-4 – 7-25, Table 7D, p. 7-28
I. Fu 1.	unding/Costs includes costs to implement alternatives?	Yes	Chapter 7, p. 7-1, pp. 7-4 – 7-25, Table 7D, p. 7-28
2.	includes anticipated funding sources?	Yes	Chapter 7, p. 7-1, pp. 7-4 – 7-25, Table 7D, p. 7-28
	RAM REVISION [150.23(e)(9)] Supporting documentation es provision for revision?	Yes	Chapter 7, p. 7-20

CDONCODIC	CERTIFICATION
SPUNSUMS	UCRITICATION

The Noise Compatibility Program Update and accompanying documentation for Scottsdale Airport, including the description of consultation and opportunity for public involvement, submitted in accordance with Code of Federal Regulations, Title 14, Part 150, are hereby certified as true and complete to the best of my knowledge and belief. It is also certified that this documentation is the City of Scottsdale's official Noise Compatibility Program for Scottsdale Airport.

It is further certified, to the best of my knowledge and belief, that adequate opportunity has been afforded to interested persons to submit views, data, and comments concerning the correctness and adequacy of the Noise Compatibility Program Update and forecast aircraft operations.

Date of Signature	Scott T. Gray
G	Aviation Director
	City of Scottsdale