(35)

A RESOLUTION
NO. 90-54-65
APPROVING THE FEDERAL AVIATION REGULATION (FAR) PART 150 EXISTING CONDITIONS AND 1993 FUTURE CONDITIONS NOISE EXPOSURE MAPS AND NOISE COMPATIBILITY PROGRAM FOR SAN ANTONIO INTERNATIONAL AIRPORT

* * * * * * * * * * * * * * * * * * * *

WHEREAS, the City of San Antonio (hereinafter referred to as the "City") controls, operates and maintains the San Antonio International Airport (hereinafter referred to as the "Airport"); and

WHEREAS, in support of a policy to operate the Airport safely in harmony with those citizens residing in close proximity thereto, the City Council on September 10, 1987 passed and approved Ordinance No. 65670 which accepted a Federal Aviation Administration grant to fund a FAR Part 150 Noise Compatibility Study for the San Antonio International Airport; and

WHEREAS, in furtherance of this policy, on December 10, 1987 Resolution No. 87-58-89 was approved which encouraged the rapid transition to Stage Three aircraft; and

WHEREAS, the Noise Compatibility Study was developed by using the land use compatibility criteria specified in Appendix A, Table 1 of FAR Part 150 as the basis for determining land use compatibility; and

WHEREAS, the Noise Compatibility Study was developed in concert with committees composed of representatives of the City Council, neighborhood associations, airlines, airline pilots, business aviation, general aviation, military aviation bases, FAA officials, fixed base operators and commercial air carriers; and

WHEREAS, on October 24, 1989 this study was presented in a Public Meeting followed by a Public Hearing in which more than 500 citizens participated; and

WHEREAS, on May 17, 1990 the City Council considered a presentation of the Noise Compatibility Program and directed that the original study committees be combined into one committee to reconsider the elements of the study that addressed the Acoustical Treatment/Avigation Easement and Purchase Assurance Programs; and

WHEREAS, said combined committee as well as subsequent legal review resulted in certain recommended modifications to the Noise Compatibility Program; and

WHEREAS, upon FAA approval of the Noise Compatibility Program, certain federal funding may be available to assist in the implementation of the recommendations therein contained; and

WHEREAS, the Airport does not receive ad valorem tax support and all monies comprising the City's share of funding necessary to implement the recommendations set forth in the Noise Compatibility Program will be derived from fees and other revenues from Airport operations; and

WHEREAS, actions associated with the implementation of the Noise Compatibility Program will occur only upon the further direction and approval of the City Council; NOW THEREFORE:

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

The FAR Part 150 Existing Conditions and 1993 Future Conditions Noise Exposure Maps and Noise Compatibility Program for the San Antonio International Airport as set forth in Attachment I and as modified in Attachment II are hereby approved, both said Attachments being attached hereto and incorporated by reference herein.

PASSED AND APPROVED this 13th day of December, 1990.

Lila Cockrell

M A Y O R

ATTEST: Norma S. Rodriguez
City Clerk

APPROVED AS TO FORM: Tom Finlay
for City Attorney

90-54

	ARTS & CULTURAL AFFAIRS
/	AVIATION
/	BUILDING INSPECTIONS
	BUILDING INSPECTIONS-HOUSE NUMBERING
	CITY ATTORNEY
	MUNICIPAL COURT
	REAL ESTATE (FASSNIDGE)
	REAL ESTATE (WOOD)
	TRIAL SECTION
	CITY MANAGER
	TRAVIS BISHOP,ASST. TO THE MANAGER
	CODE COMPLIANCE
	CITY PUBLIC SERVICE-GENERAL MANAGER
	CITY PUBLIC SERVICE-MAPS & RECORDS
	CITY WATER BOARD-GENERAL MANAGER
	COMMERCIAL RECORDER
	COMMUNITY DEVELOPMENT (BASEMENT)
	CONVENTION & VISITORS BUREAU
	CONVENTION FACILITIES
	DOME DEVELOPMENT OFFICE
	ECONOMIC & EMPLOYMENT DEVELOPMENT(DEED)
	ENVIRONMENTAL MANAGEMENT
	FINANCE DIRECTOR
	ASSESSOR
	CONTROLLER
	GRANTS
	RISK MANAGEMENT
	TREASURY
	FIRE DEPARTMENT
	HUMAN RESOURCES & SERVICES
	INFORMATION RESOURCES
	INTERNATIONAL RELATIONS
	LIBRARY
/	MANAGEMENT SERVICES
	MARKET SQUARE
	METROPOLITAN HEALTH DISTRICT
	MUNICIPAL CODE CORPORATION (PUBLICATION)
	MUNICIPAL COURTS
	PARKS & RECREATION
/	PLANNING
	LAND DEVELOPMENT SERVICES
	POLICE DEPARTMENT
	PUBLIC INFORMATION OFFICE
	PUBLIC UTILITIES
	PUBLIC WORKS
	CAPITAL PROJECTS MANAGEMENT
	CENTRAL MAPPING
	ENGINEERING
	PARKING DIVISION
	REAL ESTATE (BILL TOUDOUZE)
	TRAFFIC ENGINEERING
	PURCHASING & GENERAL SERVICES

ITEM NO. 35

MEETING OF THE CITY COUNCIL DATE: DEC 13 1990

MOTION BY: Dutmer SECONDED BY: Webb

ORD. NO. — ZONING CASE

RESOL 90-54-65 PETITION

	ROLLCALL	AYES	NAYS
MARIA BERRIOZABAL PLACE 1		✓	
JOE WEBB PLACE 2		absent	
HELEN DUTMER PLACE 3		✓	
FRANK D. WING PLACE 4		✓	
WALTER MARTINEZ PLACE 5		✓	
BOB THOMPSON PLACE 6		✓	
YOLANDA VERA PLACE 7		✓	
NELSON WOLFF PLACE 8		✓	
WEIR LABATT PLACE 9		✓	
JAMES C. HASSLOCHER PLACE 10	—	✓	
LILA COCKRELL PLACE 11 (MAYOR)		✓	

90-54

Modifications to
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study

A. **Comprehensive Land Use Planning and Zoning** as set forth on Page 80 of Volume 1 is amended to read in its entirety as follows:

"Comprehensive Land Use Planning And Zoning

This alternative would involve developing a zoning overlay district to regulate incompatible uses and to require special acoustical treatment within the noise impact areas. This alternative is recommended to be carried forward into an implementation program."

B. **Element: #9. Comprehensive Land Use Planning and Zoning** as set forth on pages 126-127 of Volume 1 is amended to read in its entirety as follows:

"ELEMENT: #9. Comprehensive Land Use Planning and Zoning

RESPONSIBILITY: City of San Antonio

FINANCING: City of San Antonio - 20%
Federal Aviation Administration - 80%
$50,000 Land use analysis and mapping
$ to be determined in further studies

IMPLEMENTATION ACTION:

- Implementation of the following actions should depend directly upon the availability of funding from the FAA for this element. The Department of Aviation will prepare and submit the necessary applications for FAA funding of the pilot program described in the following paragraphs. The City should, based upon the success of this pilot program, make a determination as to whether they wish to proceed with this element of the program.

- The Planning Department in coordination with the Aviation Department is to undertake an analysis within the 65 to 75 Ldn impact area (as projected for 1993). That analysis should:

  o identify the individual parcels by tax map number and other information,

  o determine the current zoning which applies to each parcel,

- o determine the noise level range projected over that property (65-70, 70-75, or 75+ Ldn),

- o compare the land uses permitted under the current zoning with the recommended compatible uses under current FAA criteria,

- o identify those properties for which the compatible uses based upon noise are not permitted by the current zoning,

- o recommend rezoning, as necessary, to uses compatible with the projected noise level and/or require special acoustical treatment in construction.

- An amendment to the building code is to be developed and adopted by the City that will require special acoustical treatment in future construction of buildings that are located within the proposed noise overlay zoning district.

- A noise overlay zoning district is to be developed which represents the projected Ldn levels of 65-70, 70-75, and 75+. Any property within this zone would require a special review for noise compatibility prior to the issuance of a building permit. The review would be accomplished by the Building Inspections Department."

C. The following paragraph is added at the end of **Element: #10. Acoustical Treatment/Avigation Easements** as set forth on page 129 of Volume 1:

"If the City Council decides to explore the acoustical treatments recommended in the noise compatibility program for the area forecasted to be within the 65 Ldn contour, it will first be tested on a public building complex selected and approved by Council. Funding for this pilot project can only be initiated by action of the City Council. The Department of Aviation will insure that all property owners involved in this program grant the City an avigation easement to preclude future litigation."

D. **Element: #12. Purchase Assurance Program** as set forth on page 131 of Volume 1 is hereby deleted.

CITY OF SAN ANTONIO

Interdepartment Correspondence Sheet

AGENDA ITEM NO. 35

TO: City Council

FROM: Michael J. Kutchins

COPIES TO: City Manager; J. Rolando Bono; Budget & Research; Legal; Finance; File

SUBJECT: Airport Noise Compatibility Program

Date December 3, 1990

SUMMARY & RECOMMENDATION

At a May 17, 1990 "B" Session on the Airport Noise Compatibility Program, Council requested changes be made before presentation at "A" Session. The combined Technical and Community Advisory Committees revised element 10 by reducing the initial acoustical treatment pilot program to one public building complex and eliminated item 12, purchase assurance. In addition, item 9, land use planning and zoning, has been clarified to eliminate language which is in conflict with State law. Further, the Resolution provides that implementation will require additional City Council authorization.

The proposed Resolution approves the Federal Aviation Administration (FAA) Part 150 Noise Compatibility Program for the San Antonio International Airport. The purpose of the Program, which was developed in accordance with Federal Regulations, is to reduce the number of persons impacted by aircraft noise. Representatives of numerous neighborhood associations, FAA, Military and aviation industry participated in the formulation of the Program. The general public provided input at a Public Meeting on October 24, 1989.

Approval of the Noise Compatibility Program as modified is recommended.

POLICY ANALYSIS

Council has previously accepted a Federal Grant for the Noise Compatibility Study. Adoption of this Resolution is necessary prior to submission of the Program to FAA.

FINANCIAL DATA

Implementation of the 150 Noise Compatibility Program is strictly voluntary. However, FAA grant participation of 80% is contingent upon a federally approved Program. The remaining 20% would come from airport revenues.

APPROVED:

Alexander E. Briseño
City Manager

Michael J. Kutchins
Director of Aviation

ATTACHMENT I
of RESOLUTION No. 90-54-65
DATE OF ISSUE 12/13/90

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Sponsored by:
CITY OF SAN ANTONIO, TEXAS
Department of Aviation

VOLUME I

TransPlan

F.A.R. PART 150 STUDY

NOISE EXPOSURE MAPS/ NOISE COMPATIBILITY PROGRAM

for

SAN ANTONIO INTERNATIONAL AIRPORT

VOLUME I

Prepared By

TRANSPLAN

February 1990

San Antonio International Airport

FAR Part 150 Study

Volume I

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INTRODUCTION

The objective of this study is to provide airport noise exposure maps and an airport noise compatibility program which meets the requirements of Federal Aviation Regulation (FAR) Part 150.

The overall goal of the FAR Part 150 Study is to identify ways to alleviate existing or future noise impacts at San Antonio International Airport. The Noise Compatibility Program is expected to set guidelines by which the airport can meet the aviation needs of the entire San Antonio area while maximizing the airport's compatibility with neighboring land uses.

This goal will be attained through the realization of the following objectives:

- The determination of the areas most greatly affected by aircraft operations at San Antonio International Airport.
- The proposal of alternatives for controlling the noise impact on the surrounding environment.
- The presentation of guidelines to prevent increases in incompatible land uses around the airport.
- Methods for monitoring the progress and effectiveness of the Noise Compatibility Program.

The public, airport users, and local agencies as well as the FAA were afforded the opportunity to review and comment on the San Antonio Part 150 Study and its supporting documentation. A Technical Advisory Committee and a Community Advisory Committee were formed to guarantee vital channels of input to those individuals or organizations affected by the FAR Part 150 Study. Meetings were held at key points in the study in order to insure a maximum exchange of information. In addition, the document was placed in the local libraries as well as the City Clerk's Office and Aviation Department to allow for its review prior to a public meeting and hearing.

A formal public meeting and hearing was conducted on October 24, 1989. More than 500 persons were in attendance and over 40 of those presented their views and comments on the study. The meeting was held prior to the public hearing to present the Noise Exposure Maps, the Noise Compatibility Program, and the results of the Noise Monitoring Study.

Participation in the study by community and technical groups is documented in Volume II, Appendix E of this report. It includes meeting notes, correspondence, written comments received during the course of the study, the public hearing transcript, and a response to all written comments received as a result of the public hearing.

Chapter 1: **THE AIRPORT**

Section 1-1: AIRPORT VICINITY

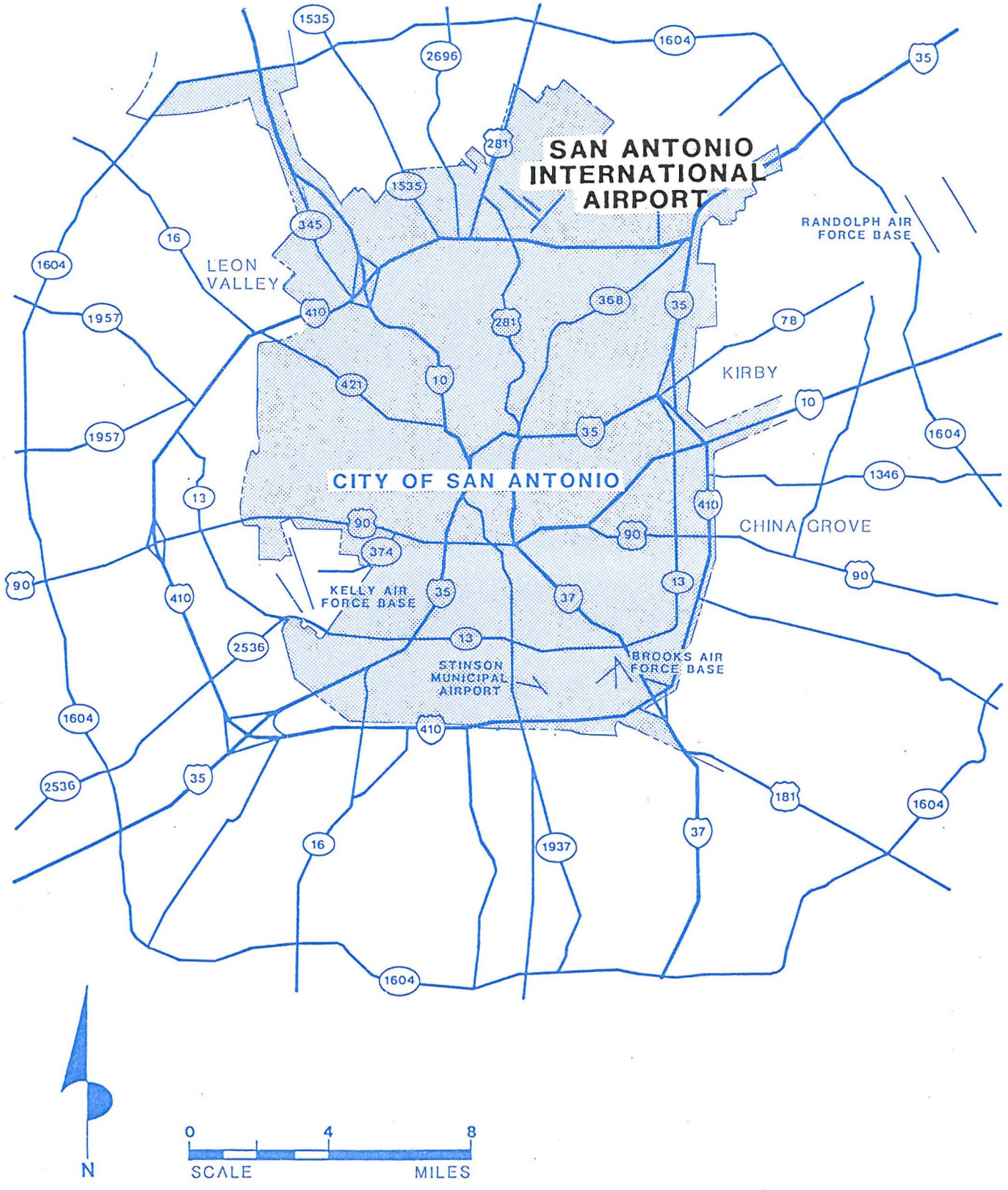
San Antonio International Airport is located in the northern portion of the City of San Antonio, Texas. The airport is approximately 8 miles from the Central Business District. The city is the population and commerce center for the San Antonio Metropolitan Statistical Area (MSA) which is comprised of the counties of Bexar, Comal, and Guadalupe.

The San Antonio MSA had a population of 1,271,500 persons in 1987, which places it third in the State and thirty-first nationally. Recent downtown revitalization and rehabilitation efforts in the city have proven successful, thereby contributing to the desirability and growth potential of the entire area.

The result of these and other recent developments such as the Texas Research Park, Sea World, and the Henry B. Gonzalez Convention Center expansion will play a large role in the future growth of the San Antonio International Airport.

The airport vicinity is depicted in Figure 1-1.

Figure 1-1



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

VICINITY MAP

Section 1-2 : PHYSICAL CHARACTERISTICS

The San Antonio International Airport is an air carrier airport serving major air carriers, commuters, cargo carriers and general aviation. The physical characteristics of the airport are summarized below.

1-2.1 Airfield Facilities

Airfield facilities include runways, taxiways, airfield lighting, and navigational aids. The current airport layout plan illustrated in Figure 1-2, depicts these facilities.

1-2.2 Runways

The following table presents the existing runway system at the airport:

Table 1-1

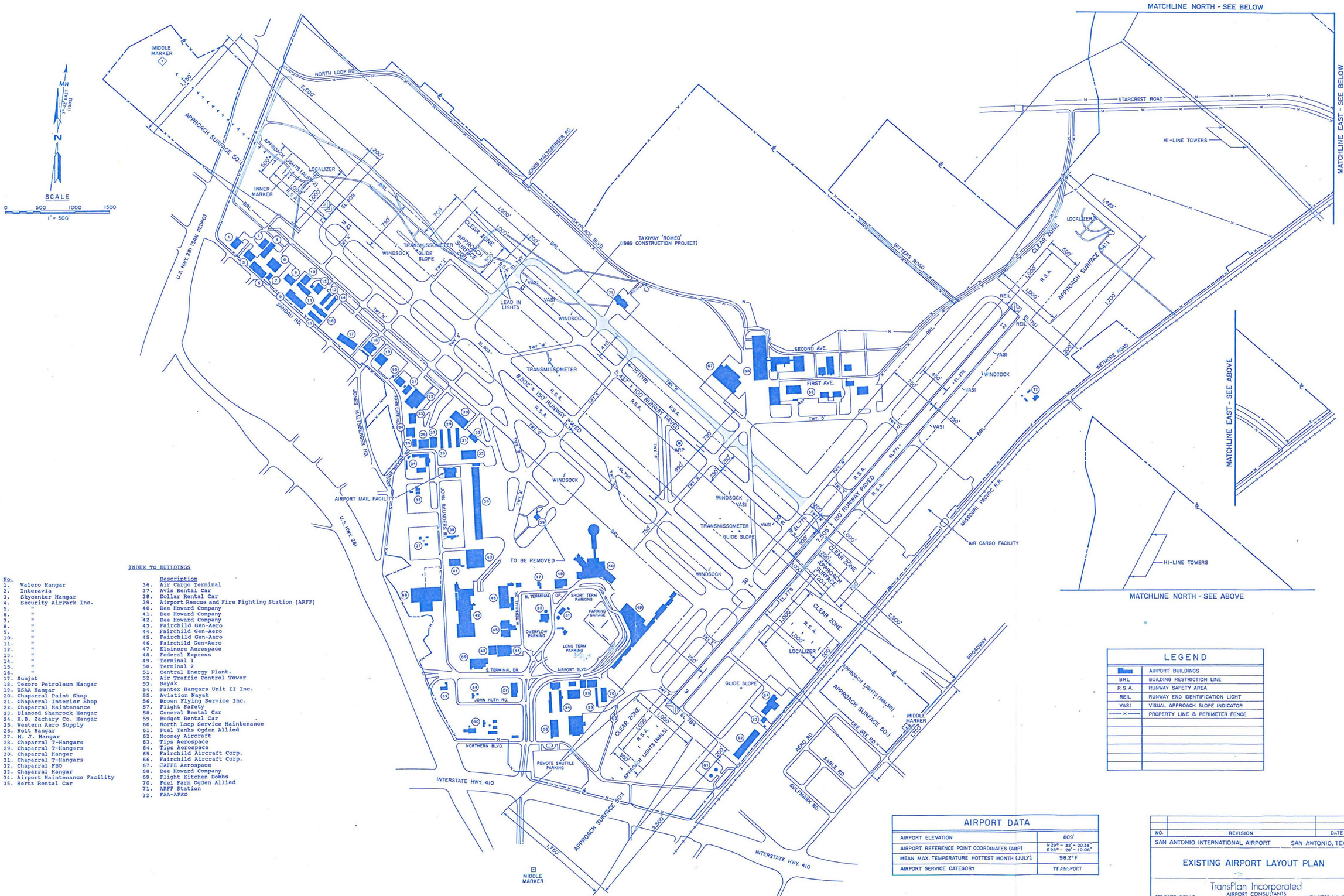
RUNWAY SYSTEM

Runway	Length/Width	Surface	Marking	Strength
12R-30L	8,502' x 150'	Concrete	Precision Instrument	95,000 lbs SW 190,000 lbs DW 270,000 lbs DT
3-21	7,505' x 150'	Asphalt	Precision Instrument	95,000 lbs SW 120,000 lbs DW 180,000 lbs DT
12L-30R	5,437' x 100'	Asphalt	Visual	17,000 lbs SW

The runways are supported by a system of taxiways, airfield lighting, visual aids, and navigational aids. Precision instrumentation includes an Instrument Landing System (ILS) Category I on Runway 3, and an ILS Category II on Runway 12R.

1-2.3 Terminal Area Facilities

The airport currently has two airline terminal buildings with a total of 24 air carrier gate positions and two ground level commuter airline gates. Terminal 1 is a modern bi-level terminal with 16 gates accommodating enplaning passengers on the upper level and deplaning passengers on the lower level. Terminal 2 is a satellite design with eight gates and a commuter operations area.



INDEX TO BUILDINGS

No.	Description
1.	Valero Hangar
2.	Interavia
3.	Skycenter Hangar
4.	Security AirPark Inc.
5.	"
6.	"
7.	"
8.	"
9.	"
10.	"
11.	"
12.	"
13.	"
14.	"
15.	"
16.	"
17.	Sunjet
18.	Tesoro Petroleum Hangar
19.	USAA Hangar
20.	Chaparral Paint Shop
21.	Chaparral Interior Shop
22.	Chaparral Maintenance
23.	Diamond Shamrock Hangar
24.	H.B. Zachary Co. Hangar
25.	Western Aero Supply
26.	Holt Hangar
27.	M. J. Hangar
28.	Chaparral T-Hangars
29.	Chaparral T-Hangars
30.	Chaparral Hangar
31.	Chaparral T-Hangars
32.	Chaparral FBO
33.	Chaparral Hangar
34.	Airport Maintenance Facility
35.	Hertz Rental Car
36.	Air Cargo Terminal
37.	Avis Rental Car
38.	Dollar Rental Car
39.	Airport Rescue and Fire Fighting Station (ARFF)
40.	Dee Howard Company
41.	Dee Howard Company
42.	Dee Howard Company
43.	Fairchild Gen-Aero
44.	Fairchild Gen-Aero
45.	Fairchild Gen-Aero
46.	Fairchild Gen-Aero
47.	Elsinore Aerospace
48.	Federal Express
49.	Terminal 1
50.	Terminal 2
51.	Central Energy Plant.
52.	Air Traffic Control Tower
53.	Nayak
54.	Santex Hangars Unit II Inc.
55.	Aviation Nayak
56.	Brown Flying Service Inc.
57.	Flight Safety
58.	General Rental Car
59.	Budget Rental Car
60.	North Loop Service Maintenance
61.	Fuel Tanks Ogden Allied
62.	Mooney Aircraft
63.	Tips Aerospace
64.	Tips Aerospace
65.	Fairchild Aircraft Corp.
66.	Fairchild Aircraft Corp.
67.	JAFFE Aerospace
68.	Dee Howard Company
69.	Flight Kitchen Dobbs
70.	Fuel Farm Ogden Allied
71.	ARFF Station
72.	FAA-AFSO

LEGEND	
	AIRPORT BUILDINGS
BRL	BUILDING RESTRICTION LINE
R.S.A.	RUNWAY SAFETY AREA
REIL	RUNWAY END IDENTIFICATION LIGHT
VASI	VISUAL APPROACH SLOPE INDICATOR
—×—	PROPERTY LINE & PERIMETER FENCE

AIRPORT DATA	
AIRPORT ELEVATION	809'
AIRPORT REFERENCE POINT COORDINATES (ARP)	N 29° - 32' - 00.38" E 98° - 28' - 10.06"
MEAN MAX. TEMPERATURE HOTTEST MONTH (JULY)	98.2°F
AIRPORT SERVICE CATEGORY	TF AIRPORT

NO.	REVISION	DATE

SAN ANTONIO INTERNATIONAL AIRPORT — SAN ANTONIO, TEXAS

EXISTING AIRPORT LAYOUT PLAN

TransPlan Incorporated
AIRPORT CONSULTANTS
708 THIRD AVENUE — NEW YORK, N.Y. 10017

Drawn: A.M.A.	Designed:	Checked:	
Scale: 1" = 500'	Approved:	Date:	

The air cargo terminal is located west of the passenger terminal building. The facility consist of a 80 by 1,040 foot building, 14,800 square yards of paved aircraft apron, and a 140 by 1,200 foot parking/truck loading lot. An additional cargo facility, proposed for the east side of the airport along Wetmore Road, is currently under construction.

These areas plus the various general aviation areas are shown on Figure 1-2.

Section 1-3: AREA AIRSPACE

The location of both civilian and military airports in proximity to San Antonio International Airport results in a complex system of aircraft flight paths and special use airspace in the area. This section describes the components of the regional airspace system; the operational patterns as they relate to San Antonio International are discussed in Section 1-4.

1-3.1 Regional Airports

Generally, private-use or restricted airports exert little or no influence on airports such as San Antonio International in terms of competitive facilities or services. However, several such airports are located in close proximity to International and impact its airspace. In addition, military facilities play a significant role in the regional airspace patterns. The location of such facilities within a 25-mile radius of International is shown in Figure 1-3.

1-3.2 Special Use Airspace

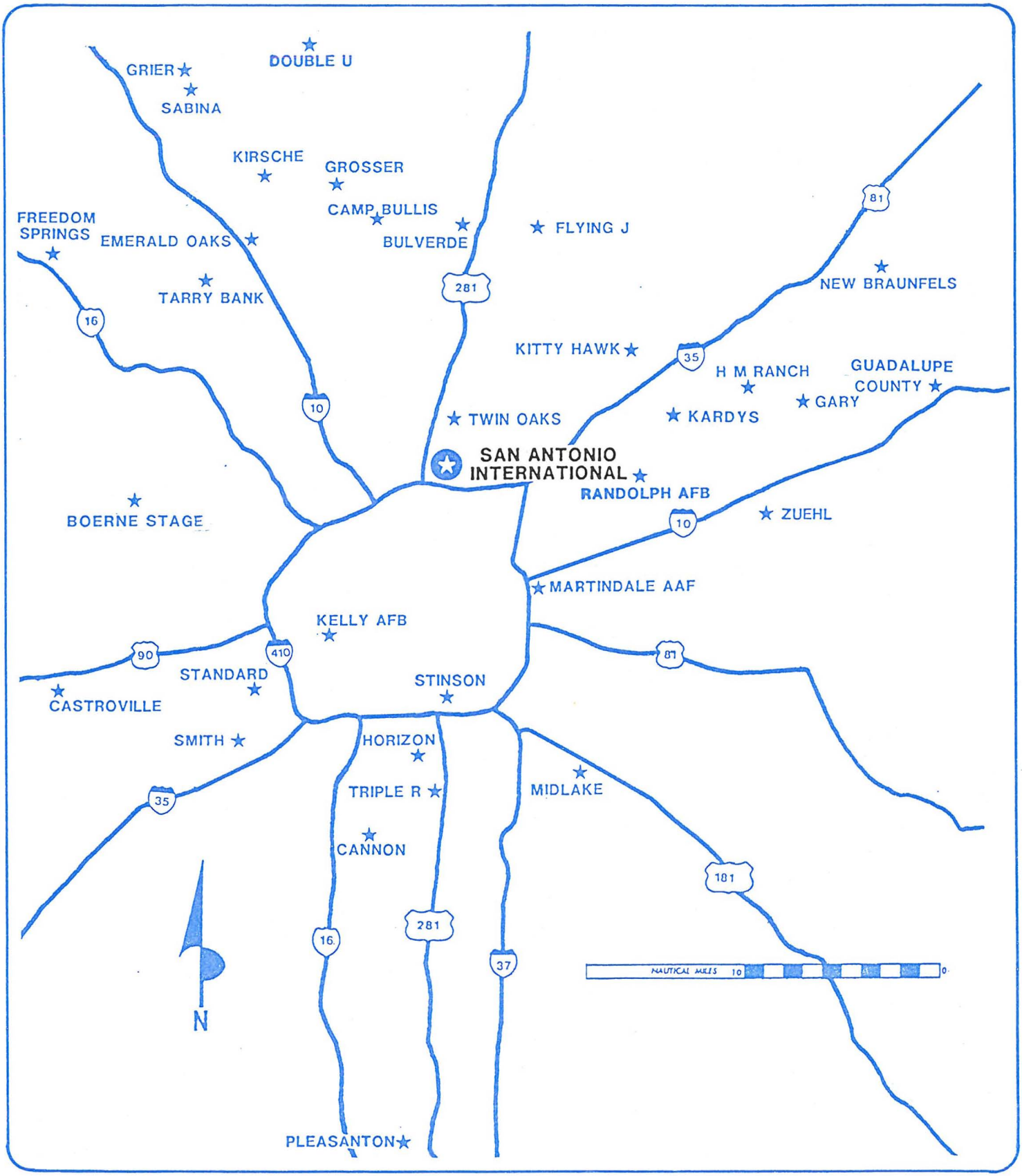
Special use airspace consists of areas wherein certain aircraft activities must be confined because of their unusual or hazardous nature. These areas are usually reserved for military operations which are not compatible with other aircraft operations. The following special use airspace areas exist in the vicinity of San Antonio International Airport: (see Figure 1-4).

- Alert Area A-635, a high density pilot training area centered over Randolph Air Force Base.

- Randolph Military Operations Area (MOA's) 1A, 1B, 1C, 2A and 2B.

1-3.3 Enroute Airways System

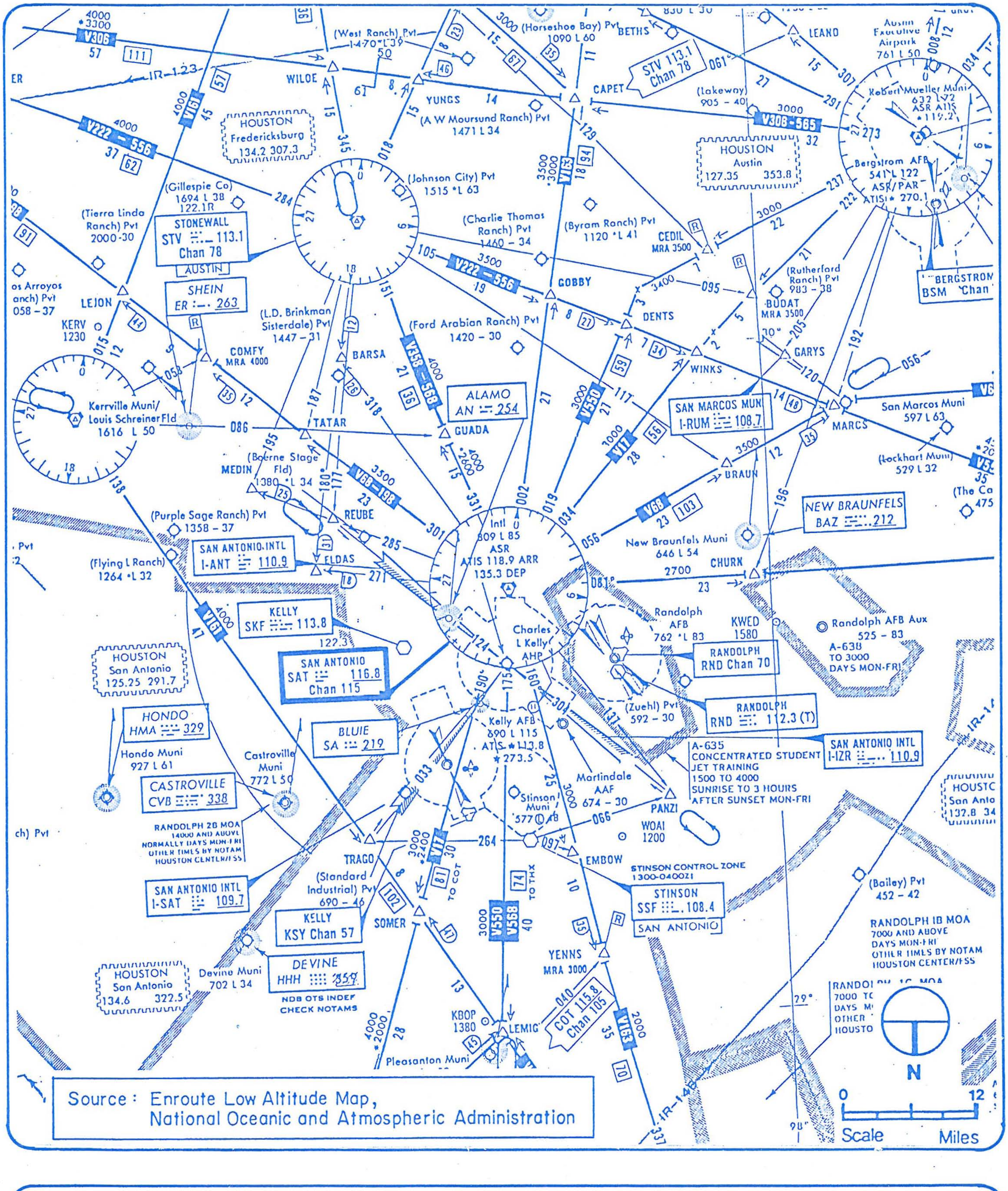
Enroute navigation through the San Antonio area is conducted through the use of the VOR Airway System, the Jet Route System and the Area Navigation System (RNAV). This airway system and associated navaids are illustrated in Figure 1-4.



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

REGIONAL AIRPORTS



Source: Enroute Low Altitude Map, National Oceanic and Atmospheric Administration

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

VOR AIRWAY SYSTEM

Section 1-4: OPERATIONAL PATTERNS

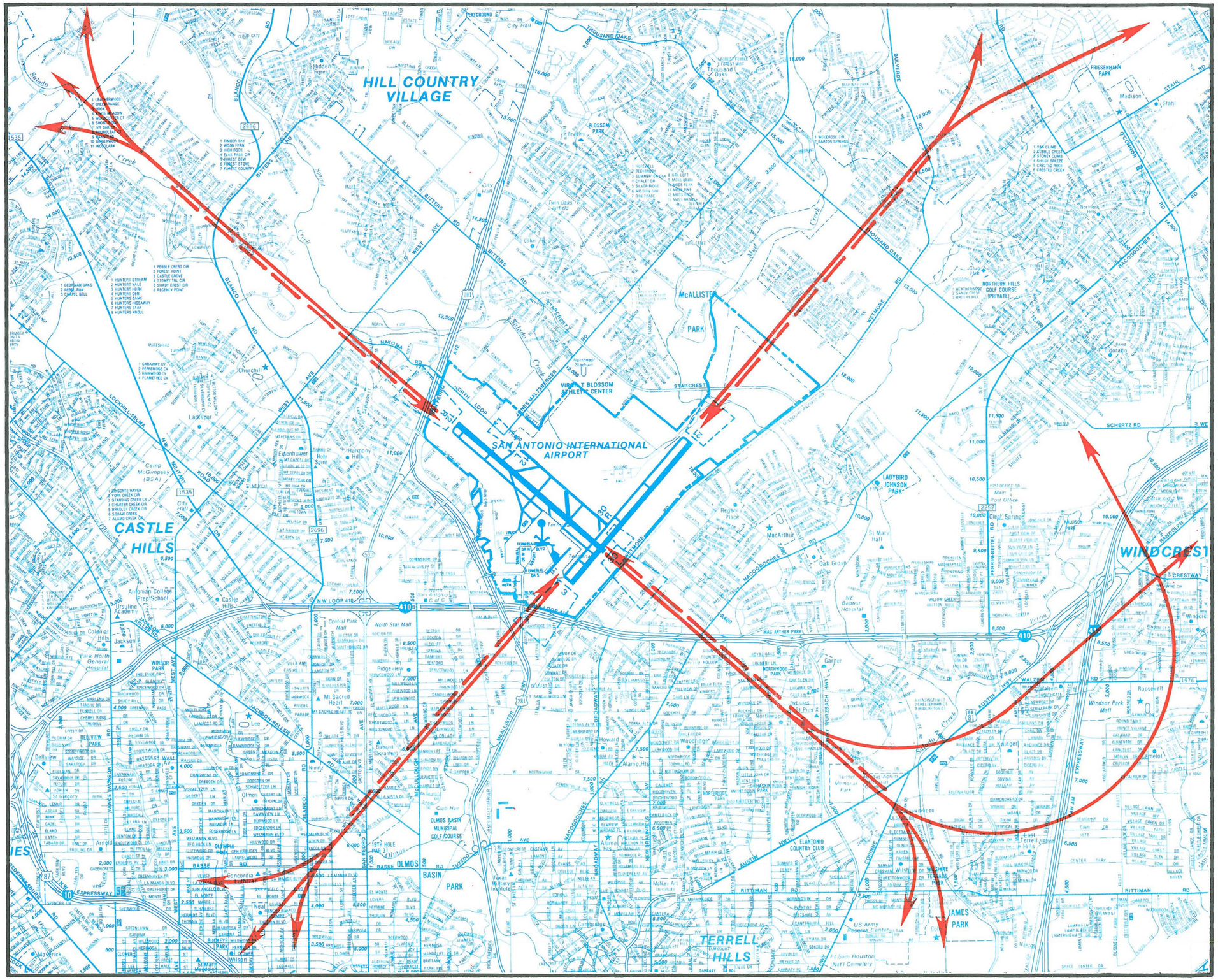
The operational approach and departure patterns at San Antonio International are complicated by the presence of the local military bases. The existing approach and departure flight tracks are illustrated in Figure 1-5.

The flow of departing traffic at SAT is dominated by use of Runway 12R. Furthermore, the primary destinations of flights are to the north and east. Thus, one of the key procedural patterns is turning Runway 12R departures to the left to avoid conflicts with Randolph AFB traffic.

The primary approach corridor to the airport is from the north for landings to Runway 12R. This also must avoid approaching traffic from the north into Randolph AFB. In addition, various Military Operations Areas (MOA's) are located south of the airport, and the traversing of military aircraft to and from those areas must be coordinated with San Antonio International traffic.

In summary, the location of Randolph AFB and Kelly AFB plays a major role in dictating the approach and departure patterns available at SAT; and limits the flexibility for altering the existing procedures. The flight tracks illustrated in Figure 1-5 were obtained from San Antonio Air Traffic Control and adopted for use in this Part 150 Study. Furthermore, flight track recording data from the Air Route Tracking System (ARTS) was reviewed. This data provides actual tracking plots of select departures. It was confirmed that the flight tracks developed are representative of those actually flown by departing aircraft.

Figure 1-5



KEY:

Approach

Departure

N

Scale

1"= 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

FLIGHT TRACKS

Section 1-5: HISTORICAL AVIATION ACTIVITY

A 10 year historical activity summary for San Antonio International Airport is presented in Table 1-2. As indicated in the summary, San Antonio has been experiencing a steady growth in air carrier enplaned passengers since 1980, while general aviation activity has been decreasing over the same period.

Table 1-2

San Antonio International Airport
FAR Part 150 Study
Historical Activity Summary

Year	Enplaned Passengers (000)	Air Cargo (Mil.Lbs)	Based Aircraft	Air Carrier	Air Taxi	G. A.	Military	Total Operations
1977	1,259	43.35	306	55,377	7,651	183,243	3,133	249,404
1978	1,488	52.93	311	58,760	16,561	178,324	2,657	256,302
1979	1,488	53.33	335	61,807	26,334	175,185	2,320	265,646
1980	1,584	57.00	367	51,208	23,538	181,805	2,431	258,982
1981	1,701	61.33	419	53,417	17,426	153,004	2,320	226,185
1982	1,733	64.68	522	58,736	15,655	134,480	2,209	211,080
1983	1,874	68.45	438	62,960	15,056	134,385	2,593	214,996
1984	2,135	97.13	436	66,697	18,206	134,076	3,251	222,230
1985	2,258	69.78	386	63,505	18,031	122,544	3,373	207,453
1986	2,329	67.38	336	70,857	13,068	110,147	4,649	198,721
1987	2,675	76.85	286	73,582	16,004	101,036	5,679	196,301
1988	2,549	39.00	290	77,217	15,621	96,950	7,750	197,538

Section 1-6: FORECASTS OF AVIATION ACTIVITY

Aviation activity forecasts were prepared for San Antonio International Airport as part of the Master Plan Update Study which was conducted concurrent with this study. The projections included general aviation based aircraft, aircraft operations, airline passenger enplanements, and air cargo movements. The forecasts covered the twenty year planning period through the year 2007 and are summarized in Table 1-3.

Table 1-3

San Antonio International Airport
FAR Part 150 Study
Aviation Demand Forecast Summary

	1987 (Actual)	1993	1997	2002	2007
Based Aircraft	286	305	315	322	327
Annual Enplaned Passengers(000)					
Air Carrier	2,500	3,255	4,116	4,956	5,852
General Aviation & Air Taxi	175	191	202	211	217
Annual Air Cargo Vol.(Million Lbs)					
Mail	32	39	46	52	58
Passenger Airline Freight	16	19	20	23	27
All-Cargo Airline Freight	29	40	54	69	86
Total	77	98	120	144	170
Annual Aircraft Operations (000)					
Air Carrier	70.5	93	112	129	141
All-Cargo	3	4	4	5	5
General Aviation & Air Taxi	117	122	126	129	131
Military	4.5	4	4	4	4
Total	198	223	240	267	281
Annual Itinerant Ops.(000)	191	216	240	259	275
Annual Instrument Ops.(000)	126	156	173	186	196
Annual Instrument Approaches(000)	10	11	12	13	14
Activity Peaking Characteristics					
Peak Month Operations (000)	18	21	23	25	26
Avg.Day/Peak Month Ops.	603	683	757	817	860
Peak Hour/Avg.Day Ops.	49	55	61	66	70
Air Carrier Peak Hour Ops.	15	19	23	26	28
Peak Hour Enplaned Pax.	915	1,192	1,506	1,812	2,141
Peak Hour Total Pax.	1,220	1,589	2,008	2,416	2,855

CHAPTER 2: AIRPORT ENVIRONS

Section 2-1: AIRPORT ACCESS AND TRAVEL PATTERNS

2-1.1 Roadways

The principal highways serving San Antonio are U.S. Interstate Highways 10, 410, 35, and 37. Primary arterial roadways include Loop 1604, U.S. 281, Military Drive, U.S. 87, FM 78, and SH 16. Secondary arteries include FM 1937, FM 2536, FM 1346, and Highway 81. San Antonio International Airport is primarily served by Loop 410 with collector streets providing access to U.S. 281. The existing roadway network is illustrated in Figure 2-1.

The City of San Antonio has adopted a major thoroughfare plan as a component of the city's master plan. 1/ This plan recommends upgrading airport access from U.S. 281, expanding the Jones Maltsberger Road on the north side of the airport from two to four lanes in response to the area's expected growth, and adding ramps to form a three level interchange at U.S. 281 north and Loop 410.

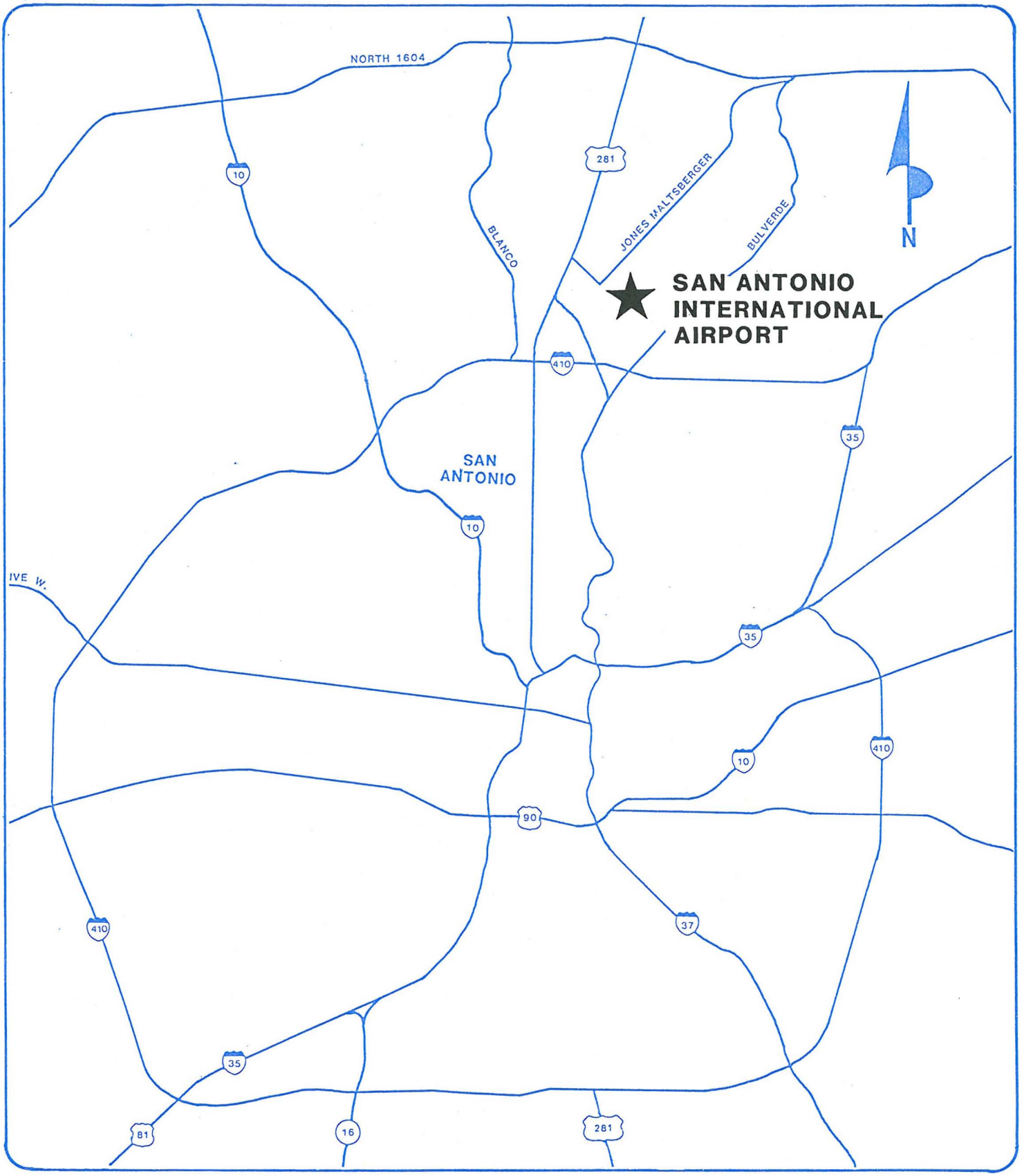
2-1.2 Public Transportation

Public bus service is provided to the residents of San Antonio and surrounding communities by the Metropolitan Transit System (VIA). This service includes bus transportation from San Antonio International Airport to the central business district. In addition to bus service, taxis provide on demand transportation to and from the airport.

2-1.3 Rail Service

Rail service is currently available in San Antonio through three major railroads: the Southern Pacific, the Missouri Pacific, and the Missouri-Kansas-Texas. This rail service is oriented to the movement of freight and does not have a direct link to San Antonio International Airport.

1/. Texas Department of Highways and Public Transportation San Antonio-Bexar, County Long Range Transportation; Plan Highway Element, (March 11, 1980).



SAN ANTONIO INTERNATIONAL AIRPORT

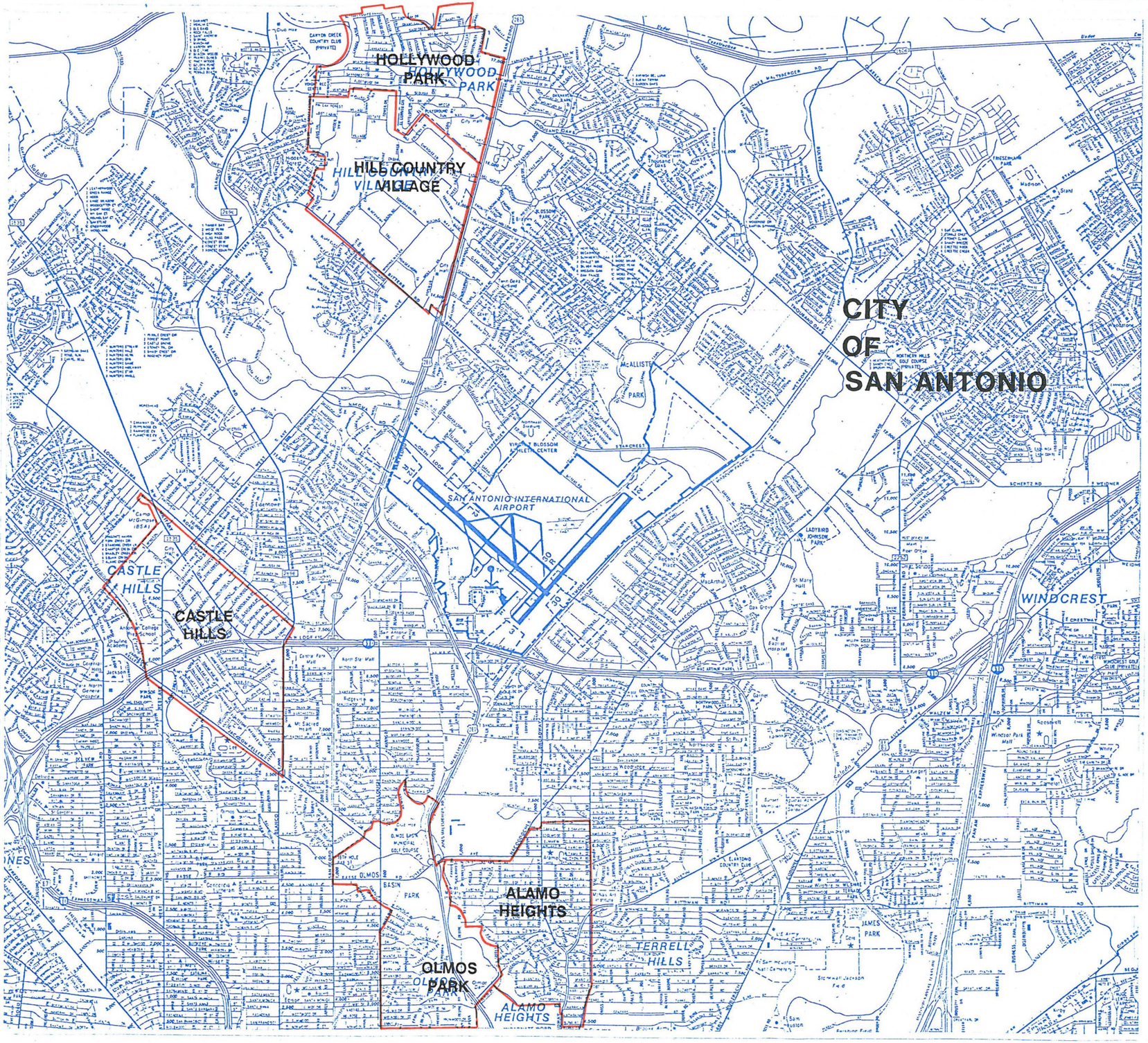
FAR Part 150 Noise Compatibility Study

EXISTING ROADWAYS

Section 2-2: MUNICIPAL AND SOCIAL JURISDICTIONS

The San Antonio International Airport is located entirely within the City of San Antonio limits. However, there are a number of municipal jurisdictions which have existed, or have been formed, in the general airport vicinity as depicted in Figure 2-2. Each of these municipal jurisdictions does have a form of government separate from that of the City of San Antonio. In addition, various social jurisdictions, or neighborhoods also exist and participated in the Part 150 process as part of the Community Advisory Committee. A list of those participating in the Part 150 process is contained in Appendix B of this document.

For the purpose of analyzing noise impact on the area population, census tracts were identified and are illustrated in Figure 2-3.



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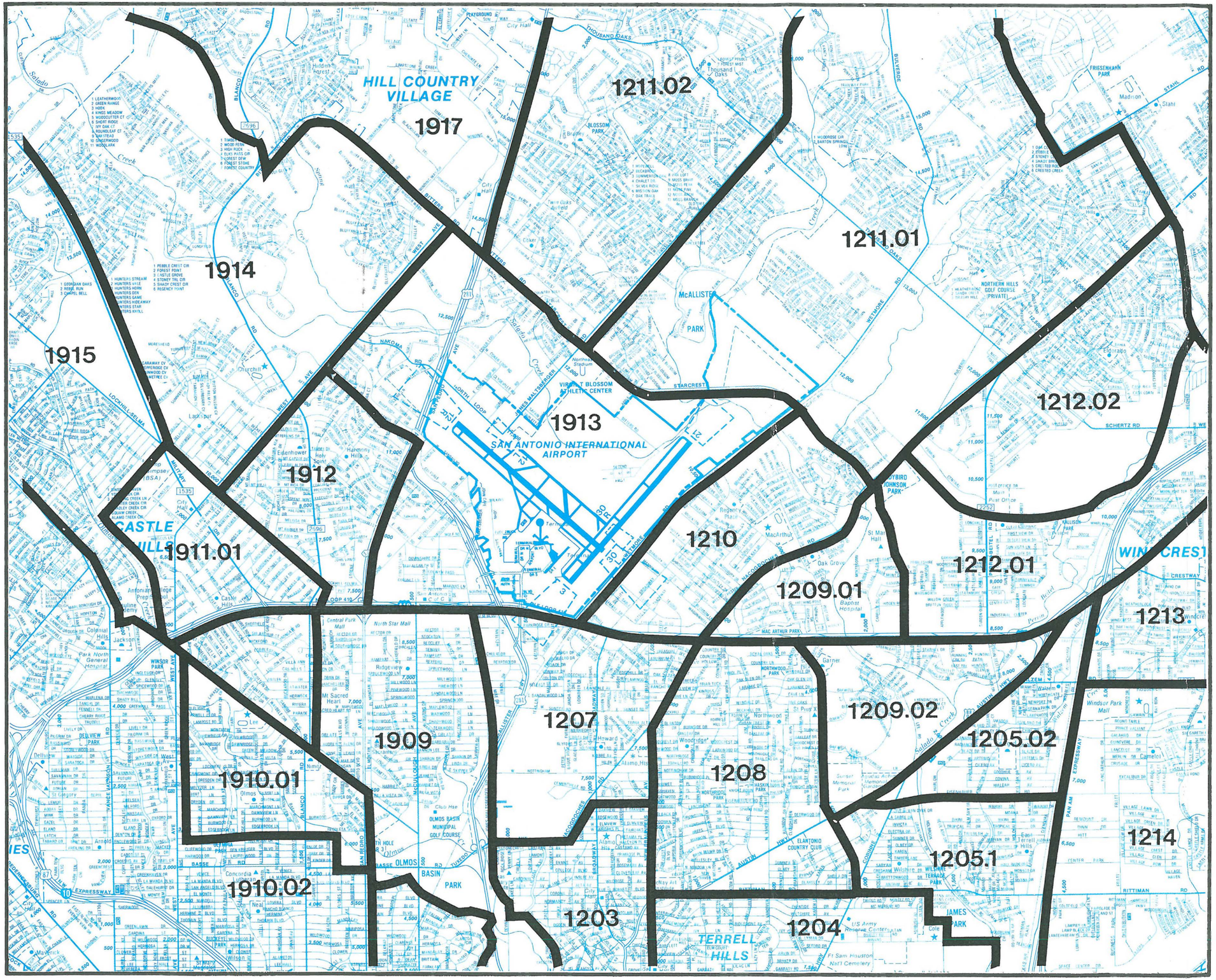
MUNICIPAL JURISDICTIONS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1205.02
1214
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1204
HILL COUNTRY VILLAGE
SAN ANTONIO INTERNATIONAL AIRPORT
TERRELL HILLS
McALLISTER PARK
N
Scale
1"=4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
CENSUS TRACTS

Section 2-3: SOCIOECONOMIC CHARACTERISTICS

The following paragraphs detail the socioeconomic characteristics for the San Antonio area including population, income and employment.

2-3.1 Population

Table 2-1 depicts the population changes which have occurred in the San Antonio area since the 1950 census. This table indicates that the growth of the city has been increasing at an average rate of 3.0 percent per year from 1950 to 1986. The growth rate in Bexar County has been slightly higher, at approximately 3.7 percent per year. Currently, 91.7 percent of the population within the MSA resides in Bexar County.

Table 2-1

POPULATION GROWTH TRENDS 1/

Year	City of San Antonio	Bexar County	MSA 2/
1950	408,400	500,500	500,500
1960	587,700	687,200	687,200
1970	654,200	830,500	864,000
1980	786,000	988,800	1,071,974
1986	926,000	1,173,000	1,279,400

Research of available population projections for the MSA revealed that two different projections were available. These projections are presented in Table 2-2, shown on the following page.

1/ Land Use Plan, Department of Planning, City of San Antonio, 1982; Texas Water Development Board Official 1986 Series Forecasts.

2/ Including Comal and Guadalupe counties.

Table 2-2

POPULATION GROWTH PROJECTIONS-SAN ANTONIO MSA

Year	Texas Water Devlop. Brd. 1/	BEA 2/
1980	1,071,954 3/	1,071,974
1990	1,323,776	1,255,493
2000	1,612,000	1,421,355
2010	1,894,600	1,527,957

1/. Texas Water Development Board, Official 1986 Series Forecasts, (Austin, Texas, 1986).

2/. U.S. Department of Commerce, 1980 BEA Regional Projections, Bureau of Economic Analysis, (Washington, D.C., July 1981) with years 2000 and 2010 extrapolated by TransPlan.

3/. U.S. Department of Commerce, 1980 Census of Population, (1981).

Based upon the data contained in Table 2-2, the MSA is expected to show continued growth of about two percent per year over the next 25 years. The BEA projections are based on a static or decreasing share of the total population of the United States. While these figures provide a point of reference, it is felt that they represent a "worst case" scenario. Historical data reveals that the MSA is increasing in population at a higher growth rate than the nation.

2-3.3 Employment

The San Antonio economy is tied very strongly to government employment, tourism, agriculture, manufacturing, and medical. The major industry in San Antonio is wholesale and retail trade, with the services and government sectors following closely behind. The distribution of San Antonio's industrial mix is shown in the following table:

INDUSTRIAL MIX IN SAN ANTONIO MSA

Industry	Percentage
Trade	25.8
Services	22.4
Government	21.3
Manufacturing	10.6
Finance	7.6
Construction	7.5
Transportation	4.0
Mining	.6

Section 2-4: LAND USE

Community-wide land use and growth patterns will determine where future concentrations of residential, commercial, and industrial uses are likely to occur around the airport. Land use patterns in the vicinity of the airport are of particular importance since any existing or future land use conflicts must be carefully considered when evaluating noise conditions.

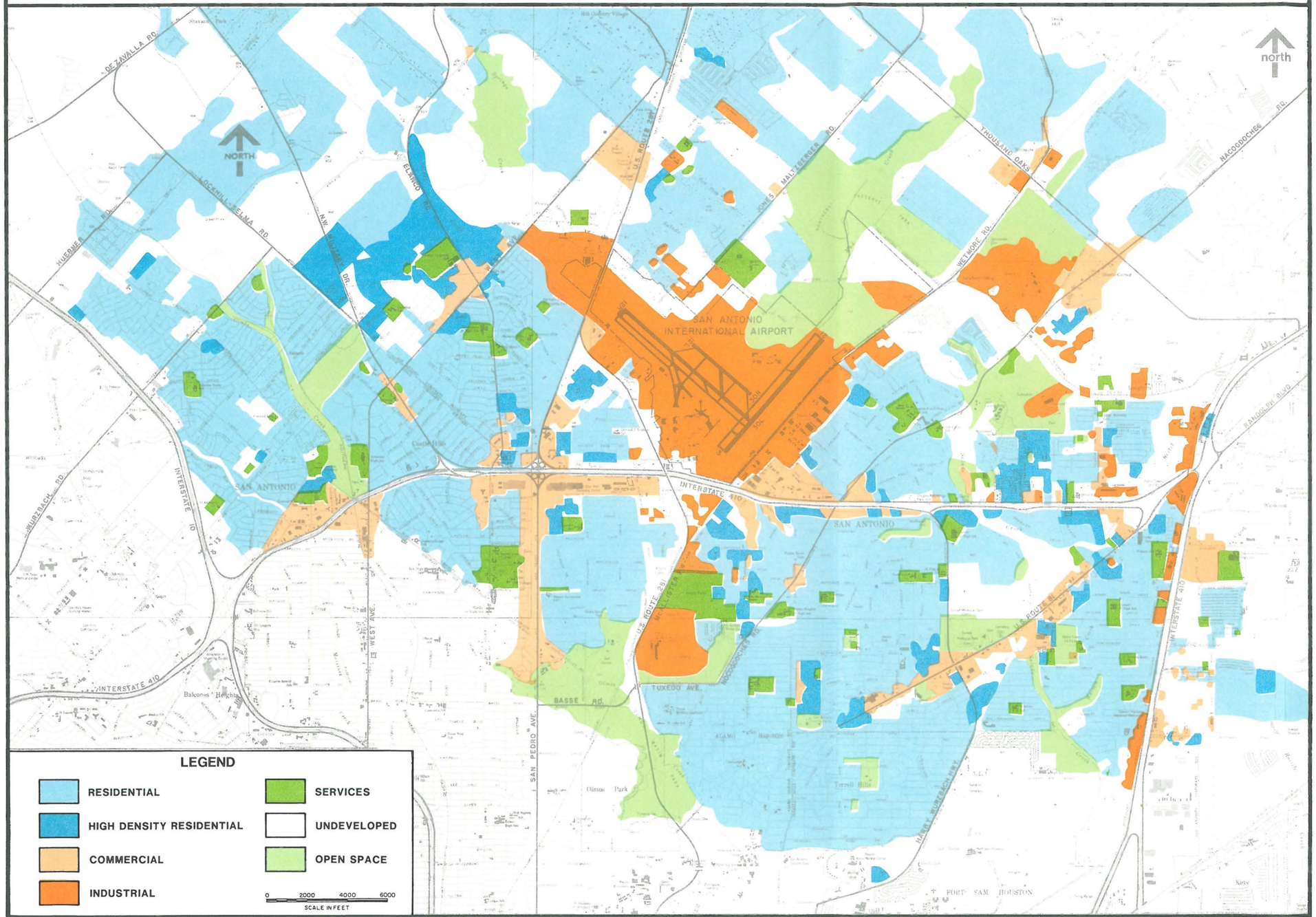
The 1981 Summary of Land Use in Bexar County as compiled by the City of San Antonio's Department of Planning for the 1982 Land Use Plan is shown in the Table 2-3.

Land use contiguous to the San Antonio International Airport, as shown in Figure 2-4 is a mixture of residential, commercial, and public. Residential land use in the area is primarily low density urban residential (e.g. single family homes on medium to full size lots). Small concentrations of high density urban residential land use such as apartment complexes, are also present. Commercial and office land use occurs along most of the area's major roadways. The airport is the area's major industrial land use, while other industrial sites are scattered throughout the vicinity.

2-4.1 Growth Trends

Consultation with city planning officials revealed that most new residential development is anticipated to occur in the following areas: (1) along I-10 from Loop 410 to Loop 1604, (2) north of U.S. Highway 90, (3) north of I-35 and Loop 1604, (4) between Loop 410 and Foster Road. Industrial growth will likely occur in the existing industrial areas around I-35 North, East Loop 410, and in the vicinity of the San Antonio International Airport.

Rapid growth in the proximity of the San Antonio International Airport has and will continue to place greater constraints on the growth of the airport. As available space is used, the remaining underdeveloped spaces take on greater value and careful planning is essential to assure its wise use.



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Noise Exposure Map

LAND USE

Table 2-3

BEXAR COUNTY LAND USE 1/

Category	Acres	Area (Square Mile)	Percent of Total Land Area
Residential	110,706 ac.	173 sq. mi.	14%
Commercial	7,636 ac.	12. sq. mi.	1%
Services 2/	56,637 ac.	89 sq. mi.	7%
Industrial	18,604 ac.	29 sq. mi.	2%
Open Space	31,979 ac.	50 sq. mi.	4%
Agricultural	515,150 ac.	805 sq. mi.	64%
Transportation	18,269 ac.	29 sq. mi.	6%
Vacant	46,612 ac.	73 sq. mi.	6%
Total Land	805,593 ac.	1,260 sq. mi.	100%

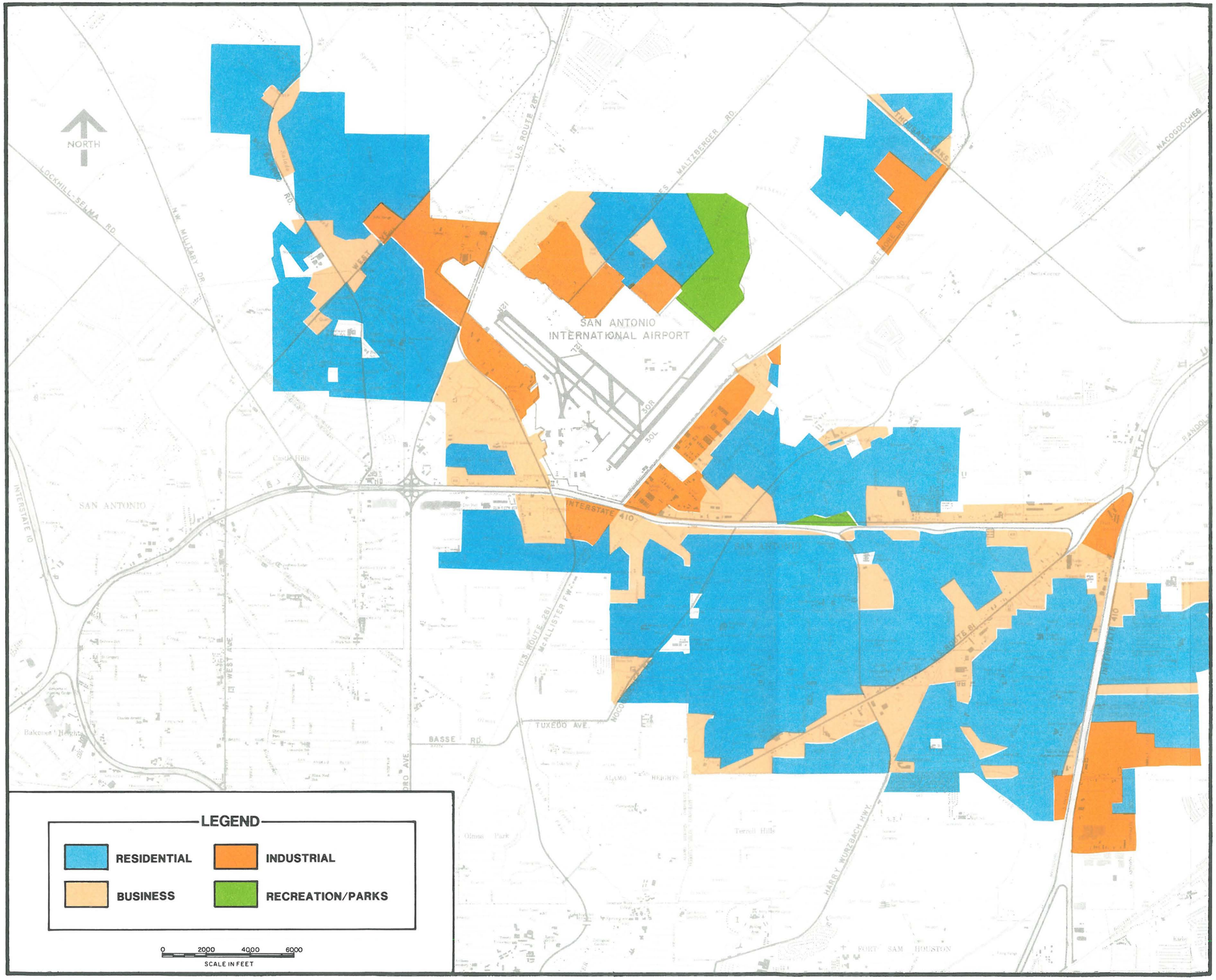
1/. City of San Antonio, Department of Planning, Land Use Plan, San Antonio, Texas, October 1981. Page A-41

2/. Services include military facilities, churches, schools, hospital, libraries, theaters, museums and sports complexes.

Section 2-5: EXISTING ZONING

Zoning in San Antonio falls into four general districts: residential, office, business, and industrial. In addition, San Antonio has several special overlay districts to deal with the military airports in the area and the Edwards Aquifer Recharge Zone. The Military Airport Overlay Districts (MAOD-1 and MAOD-2) are designed to insure public safety and general welfare by promoting compatible land uses in the vicinity of military airport flight paths. The Edwards Recharge Zone District is designed to prevent the pollution of the Edwards Aquifer Recharge Zone, an essential part of the area's water supply.

Zoning in the vicinity of San Antonio International Airport is shown on Figure 2-5.



SAN ANTONIO INTERNATIONAL AIRPORT

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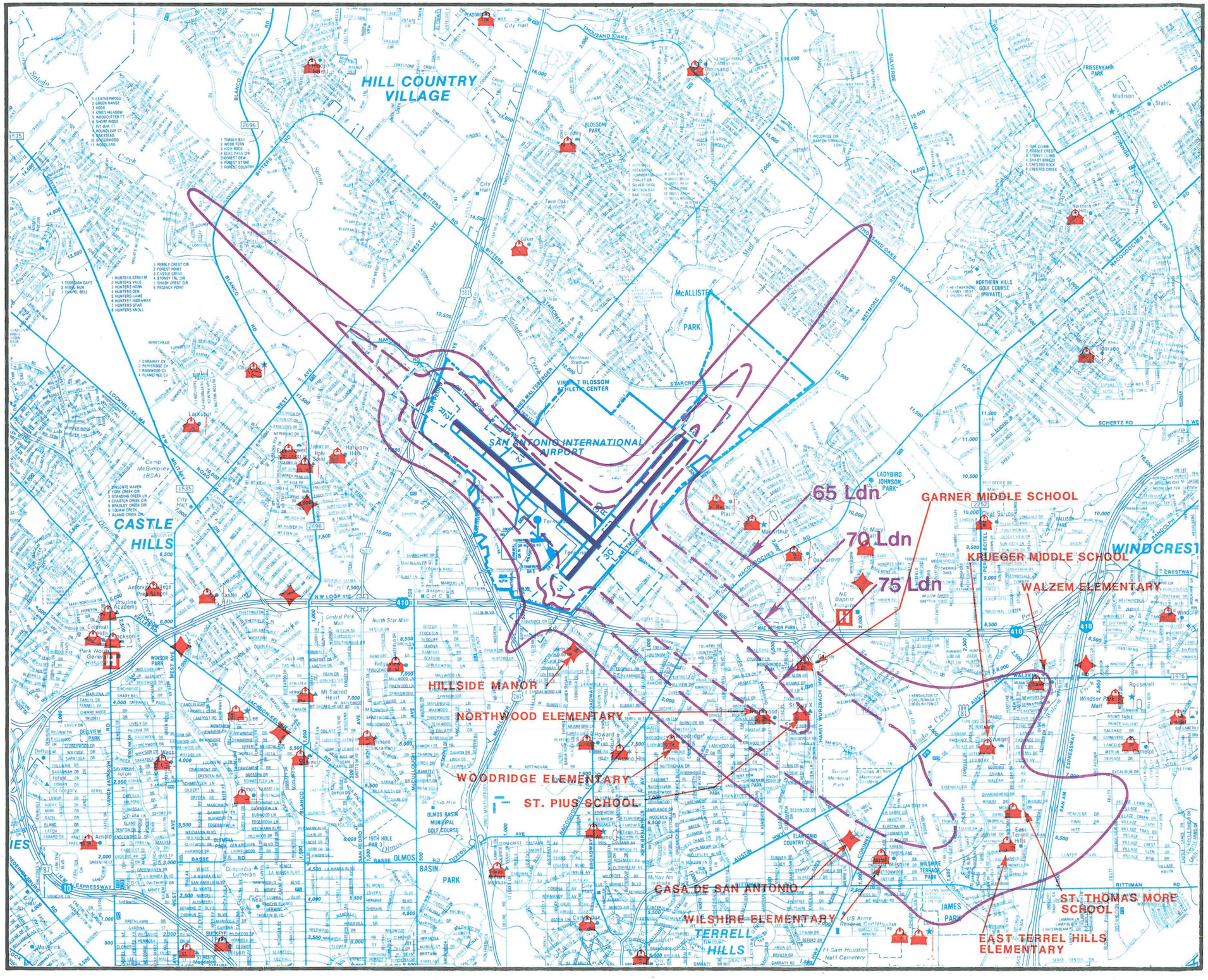
ZONING MAP

Section 2-6: NOISE SENSITIVE SITES

Noise sensitive public buildings as defined by FAR Part 150 include schools, hospitals and health care facilities (nursing homes). A complete inventory of these facilities located in the immediate environs of the San Antonio International Airport was conducted. The location of these sites relative to the airport is depicted in Figure 2-6. The purpose of identifying these sites is to determine those which are impacted by incompatible noise levels.

In addition to the schools, hospitals and health care facilities identified on Figure 2-6, Appendix D contains a list of churches as well as a graphic, identifying those located within the 65-75 Ldn contours. According to the Land-Use Guidelines of FAR Part 150, churches are generally compatible, however measures to achieve a noise level reduction (NLR) of 25, or 30 dB must be incorporated into the design and construction of a new structure.

Figure 2-6



KEY:

- Schools
- Hospitals
- Nursing Homes

N

Scale

1" = 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

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SENSITIVE LAND USES WITH 1987 NOISE CONTOURS

Chapter 3: BASELINE NOISE CONTOUR ANALYSIS

Section 3-1: INTRODUCTION

This section describes the Day/Night Average Sound Level (Ldn) noise methodology, the FAA Integrated Noise Model (INM) as a measuring tool, and the input data requirements to the INM for San Antonio International Airport. Later sections of the Chapter present noise contours for existing conditions, and for the expected five year future conditions (1993). As historical reference, noise contours developed from 1978 operational data, and a long term future projection for the Year 2007 are also provided.

Although not required by FAR Part 150, noise monitoring was conducted in an effort to assess the validity of the computer modeled noise contours for 1987 conditions. The program was conducted between February 12 and March 8, 1989. The results of this program are fully discussed and documented in Appendix C.

Section 3-2: DAY/NIGHT AVERAGE SOUND LEVEL

Airport noise analysis is generally accomplished by the use of the Day Night Average Sound Level (Ldn) noise methodology. Pursuant to the Aviation Safety and Noise Abatement Act of 1979 and FAR Part 150, this has been designated as the single national standard method for describing aircraft noise impacts.

Although it can be accomplished manually for simple situations, the Ldn determinations are typically produced by the FAA's INM. The model provides a series of nested contours or isolines of equal cumulative sound exposure. The exposure scale generally applied runs from Ldn 65 to Ldn 75. One of the greatest virtues of the Ldn system is that it has an associated table of land use compatibility guidelines developed over many years of research by both civilian and military authorities. These guidelines are taken directly from FAR Part 150. They are presented in full later in this chapter. Use of these guidelines provides a straight forward context for the interpretation of acoustical impacts. For example, the Ldn 65 contour is the generally accepted threshold for land use incompatibility for the most sensitive uses and thus, is typically applied as the criterion or upper limit for compatible residential land use. Ldn 75 is normally the criterion for the acquisition of land as an addition to the airport.

Ldn is an energy summation methodology. This means that it generates average sound level values for a 24 hour period with a 10 decibel penalty applied to operations during the night period. Ldn as applied through the INM includes aircraft noise for those aircraft which actually land at and depart San Antonio International Airport. When used in the INM, Ldn is based on an average day which statistically reflects the annual volume of operations and overall distribution of traffic.

As mentioned above, Ldn as it is specified in FAR Part 150 does have a recommended listing of compatible/incompatible land uses which generally indicate appropriate land uses for sites with varying levels of cumulative impact. While these are not official standards and can be revised by local authorities for specific reasons, they are based on considerable research conducted at airports nationwide and worldwide. Thus, Ldn provides a very good means for comparing differing noise exposure levels at differing airports, understanding how the noise impacts grow with increasing traffic, or assessing the effectiveness of alternative noise control strategies. It is primarily an index of airport related noise impacts. In other words, Ldn is a good planning tool which represents the current state of the art airport noise measurement methodology.

When interpreting noise contours, it is important to understand the underlying relationship between aircraft noise levels, the nature of the decibel measurement system, and the human reaction to varying sound levels. This discussion draws upon and summarizes information, data and specifications thoroughly documented in Report FAA-EE-85-2, Aviation Noise Effects which itself is a summary discussion of research and information on the measurement and impact of aircraft sound.

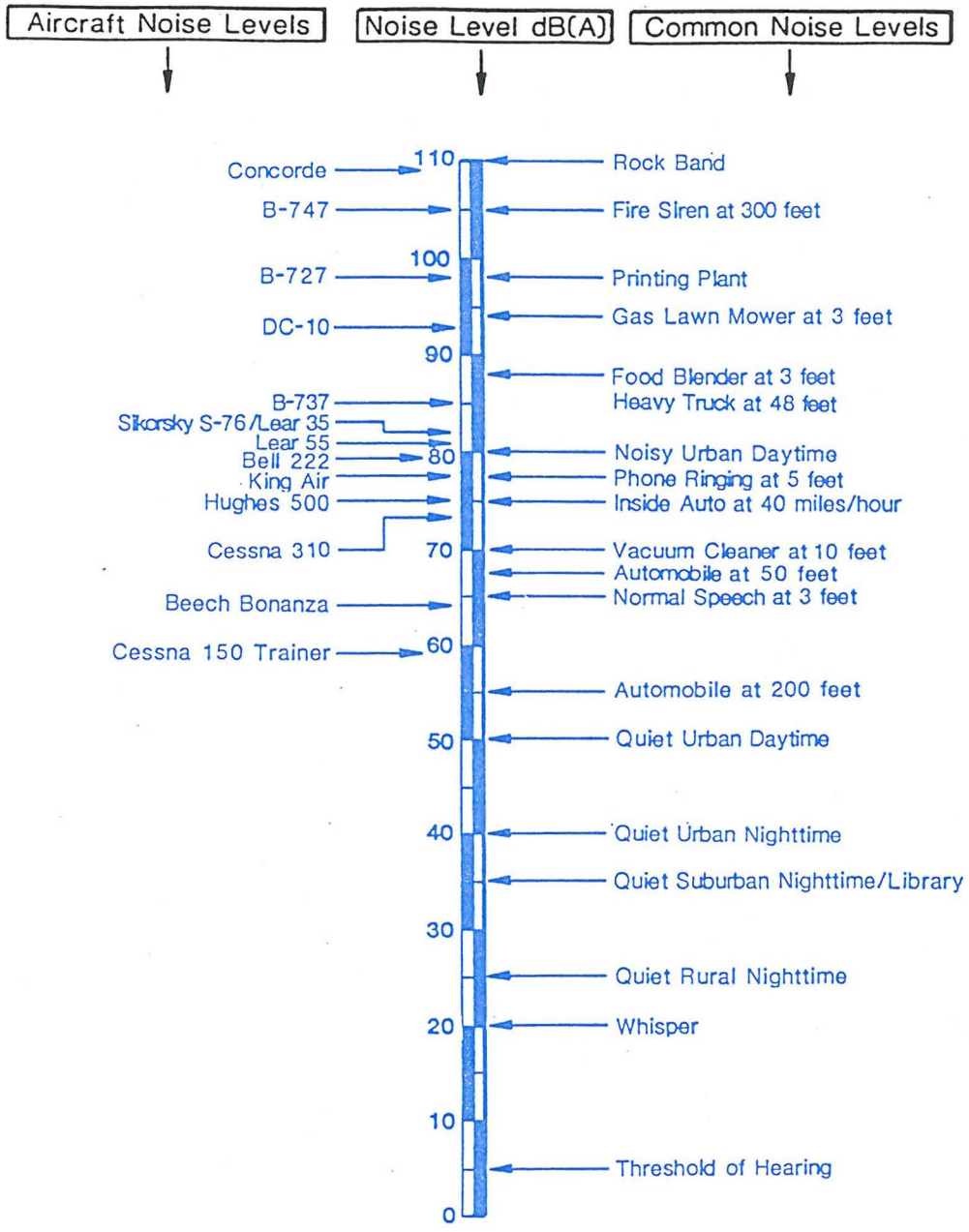
Relative noise levels of various different sources are compared in Figure 3-1. Naturally, the source-to-receiver distance is as important as the absolute sound level in determining the relevant noise level at the receivers' ear. Figure 3-1 uses typical source-to-receiver distances for the sound levels identified. Aircraft noise levels shown are the relevant values at approximately 400 feet overhead on approach, the closest range normally experienced in off-airport situations. Other sound levels are shown at normal user exposure distances.

It is important to realize that the decibel (dB) system as a whole is based on a logarithmic progression. This means that a 10 dB increase on the noise scale is equivalent to an order of magnitude increase in sound pressure level. Unlike common measures wherein each unit on the scale has the same value, i.e. an inch, foot, or mile, no two intervals on the decibel scale have the same value. In actuality the decibel measure is a power ratio between a reference level and a measured level. Thus, an aircraft which registers 70 dB at a given distance emits approximately 10 times as much noise as one which registers 60 dB at a similar distance under the same operating conditions. In this case, the range of aircraft noise levels encompassed by the aircraft fleet using San Antonio International can be as much as 45 dB.

Therefore, the noisiest aircraft generates over 10,000 times the energy emissions of the quietest aircraft depending on the mode of operation and the engine power settings. Thus, the noise emissions and traffic levels of the noisiest aircraft, particularly turbojets and low bypass ratio turbofan powered aircraft, have a much greater influence over the noise contours than the quieter aircraft which are high bypass ratio turbofans or propeller driven aircraft.

3-2.1 Human Responses to Aircraft Noise

Human hearing differs in its response to sound energy than might be expected from understanding the analytical system. The human ear encompasses such an extreme range of sound over the full audible range (0 to 120 dB) that an increase of 10 dB is normally perceived as a doubling in loudness (noisiness), not a 10 fold increase. Since ambient home and neighborhood noise may be high enough to mask the emissions of quiet aircraft and there is normally some attenuation of exterior noise by the building envelope of a structure, the least noisy aircraft may not be audible at typical source-to-receiver distances. However, noisy aircraft may generate intrusive sound levels under similar circumstances. Intrusive noise events typically are considered those which interfere with human activity, particularly speech communication. Instantaneous noise levels in excess of 70 dB are normally found to be intrusive.



Source: Young Environmental Sciences

Note: All aircraft are on approach at approximately 400 feet.
All helicopters are on approach at approximately 500 feet.

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

TYPICAL SOUND LEVELS

The Ldn system is generally a reliable predictor of the human responses to noise in terms of overall or average responses in a large sample population. For example, under normal circumstances at the Ldn 65 level of impact, the Ldn system predicts that a significant fraction of the population will consider noise levels unacceptable, organize among themselves to publicly request relief and oppose expansion of the impacts. At the Ldn 65 level, approximately 30 percent of the individuals would presumably be so moved, i.e. seriously annoyed, with an additional 30 percent less annoyed and the remaining 40 percent not annoyed. The percentage of those seriously annoyed increases to over 50 percent by the Ldn 75 level. At the Ldn 55 level the percentage of seriously annoyed drops to under 20 percent, and the percentage of those so exposed who actively complain drops to one or two percent. Other insight, however, such as the extent of the influence of socio-economic factors is necessary to fully understand why certain neighborhoods register few or no complaints and others have numerous complaints at similar exposure levels.

Two further observations are significant. First, even at this level of exposure, there would remain a substantial fraction of the exposed population who would not necessarily find the degree of exposure unacceptable. Second, at lower exposure levels, Ldn predicts a decline in the number of annoyed individuals, but not necessarily a disappearance of individuals who find the noise exposure unacceptable particularly when part of the impact results from aircraft with disproportionately large source noise emissions in comparison to the majority of the fleet mix at the facility. Thus, there may normally be an identifiable fraction of a given sample population who will react negatively to aircraft noise exposure even at relatively low cumulative exposure levels. Conversely, there are cases where the rate of dissatisfaction is abnormally low. Often this seems to be associated with the degree of benefit perceived to occur or with the high confidence levels in the management of the problem. Under circumstances where the activity generating the noise is considered essential and the impacts minimized through careful management of the overall problem, a relatively high degree of tolerance often exists.

Experience in airport noise abatement planning as well as recent research also tends to confirm an important aspect of aircraft noise. People tend to react to aircraft noise exposure to a greater degree than similar levels of noise exposure from non aircraft sources and the reasons for this vary. Aircraft noise tends to be startling, may produce a fear response, may involve large areas and may be pervasive. In other words, people tend to find aircraft noise more annoying than similar levels of noise from other sources.

One generalization about human reaction is pertinent under all circumstances. No one likes noise and the interference in human activities which normally results. It is an unwanted by-product of all human activity which is universally present in daily life. Depending on the degree of noisiness or loudness and the source, it may or may not be interpreted as an annoyance. The important insight is an understanding of the fact that people normally and willingly will endure noise as a tradeoff for the accomplishment of some meaningful or valuable activity or because the noise is a tangible manifestation of a desirable source. Although noise is usually unwanted, when beneficial results are achieved, the noise is easily

tolerated or even desired. For example, noisy power tools are preferred to quieter manual tools because the savings in human labor are a desirable tradeoff, but noisy power tools are not preferred to quieter tools which accomplish the same purpose. The ring of a telephone may create a loud noise and interfere with other activities, but the function of the sound is to alert the individual. Noise in this case is inseparable from the proper functioning of the device. In all modes of transportation, a certain amount of noise is tolerated because it is essential to accomplishing an objective. In some cases, for certain individuals, modifications to motor vehicles are made to actually increase the noise because this increases the perception of power. In understanding the topic of community noise impacts and annoyance, recognition of the human terms in which it is perceived is essential.

3-2.2 Public Health Implications

Another important consideration in the regulation of noise is the degree of effect on public health. This is normally understood in terms of a dose response relationship. Specifically, the effect of noise is cumulative. Noise of sufficient volume (usually in excess of 90 dB) lasting long enough (eight hours in the case of a 90 dB level) or occurring frequently may cause temporary or permanent impairment of hearing. This pathology generally does not occur in the case of off-airport aircraft noise impacts since the duration of the event is typically brief. Hearing protection is advisable for airport workers constantly exposed to aircraft sound at short range. Analysis of off-airport noise, however, is chiefly concerned with limiting annoyance from speech interference, sleep interference or vibrational effects such as window rattling and preventing the secondary effects of noise exposure such as an increase in general stress levels.

3-2.3 The Weighting Scales in Noise Measurement

The frequency spectrum of the sound is also a consideration in understanding aircraft noise. This is because certain frequencies are more annoying to a human listener than others. In the case of the Ldn system, this is taken into account by basing all noise level measurements on the A-weighted noise decibel. The term "A weighted" simply means that raw sound is metered or calculated through the use of a mathematical curve which corresponds to the frequency sensitivity of the human ear (i.e. the human ear is less sensitive to sound at the lower and upper end of the audible frequency spectrum). There are a variety of other ways in which the presence of certain discrete tones can be measured and included in a single number decibel rating. These include Effective Perceived Noise Decibels (EPNdB) which have been and are still used in federal certification procedures for new aircraft. This approach uses a one third octave band analysis. By breaking down the noise signature of an aircraft into frequency bands, weighting the differing frequencies and recalculating the overall decibel rating, the presence of discrete tones such as result from compressor whine in jet engines can be measured more sensitively than using dBA. However, this type of analysis is impractical for field studies and noise monitoring. Therefore in all community noise analyses, dBA has become the preferred measure.

Finally, in understanding the human response to noise, a variety of subjective factors should be considered. The Ldn system contains a 10 dBA nighttime penalty for all noise events which occur between 10:00 p.m. and 7:00 a.m. This is intended to compensate for the reduced ambient noise levels which typically occur at night and the natural preference for quiet during the normal sleep period.

Section 3-3: NOISE CONTOUR DEVELOPMENT

3-3.1 Existing Conditions

The INM can be a useful tool in measuring aircraft noise. A detailed understanding of the mechanics of the INM is useful in interpreting those results. In simple terms, the lines drawn by the computer model are less important than understanding what the lines or contours mean and how they assist in developing an intelligent program of noise abatement in response to the findings.

As with any computer model, the input data largely determines the results. In the San Antonio case all input data was derived from airport landing records, published airline schedules, Air Traffic Control records, and observations made at the airport and off the airport. Input to the INM included the following information:

- o Airport Altitude and Annual Average Temperature
- o Runway Configuration
- o Names of the Selected Aircraft
- o Description of Flight Tracks and Altitude Profiles
- o Operational Levels including Time of Day

The following sections will describe each study element and the necessary information to complete the INM input file.

The INM input files, although not included as an appendix, were all developed in the same manner. Technical details of noise contour development can be further understood through consulting FAA Integrated Noise Model, Basic User's Guide, Version 3.

3-3.3 Airport Altitude and Temperature

All noise contours developed for San Antonio held the airport altitude and temperature constant. The airport altitude was specified as 809 feet above mean sea level. Temperature selected was 85 degrees Fahrenheit.

3-3.4 Runway Configuration

San Antonio International Airport supports three physical runways. With the exception of a commercial and business jet restriction on Runway 30R, the airport has six available runways. Runway 12R-30L is the airport's primary runway for all aircraft. It is 8,502 feet long and 150 feet wide. It is equipped with a precision Instrument Landing System (ILS) and approach light system on both runway ends. The second runway, Runway 3-21, is located southeast of Runway 12R-30L and perpendicular to it. Runway 3-21 is 7,505 feet long and 150 feet wide. It intersects Runway 12R-30L approximately 2,000 feet from the threshold of Runway 3. It is equipped with an ILS on the Runway 3 end. These two

runways support all air carrier aircraft operations.

The airport's third runway, Runway 12L-30R, is 5,437 feet long and 100 feet wide. It is parallel to the main runway and located approximately 1,000 feet northeast. Due to pavement strength the runway is restricted to general aviation and commuter aircraft. It is not currently instrumented, but has Visual Approach Slope Indicators on both ends.

3-3.5 Runway Use and Traffic Flow

Overall runway use is shown on Table 3-1, Runway Use Statistics. Runway 12R is the predominant runway for all aircraft, accommodating 89% of air carrier, commuter and air taxi activity and 53% of general aviation and military traffic for both takeoffs and landings. This predominance occurs for several reasons. Overall wind orientation makes this the preferred takeoff and landing direction. The runway is convenient to the terminal area for arriving aircraft. Finally, the neighboring air facilities which also have similar runway alignments accept arriving traffic from the northwest. Minimizing interference between these facilities makes Runway 12R at San Antonio International preferred from a safety and air traffic control stand point.

Aircraft takeoff assignments to the flight tracks associated with each runway was accomplished in accordance with the overall percentage distribution of traffic among the various destination headings. The percentage distribution is shown in Table 3-2, Departure Traffic Flow. As can be seen by inspection, the majority of flights are north bound with lesser proportions east bound, west bound and south bound. The traffic distribution has been generally consistent throughout the historical period as might be expected from the geographical location of San Antonio.

3-3.6 Day/Night Split

Aircraft activity occurs throughout day and night at San Antonio International. The Ldn system provides for a 10 decibel penalty for all operations occurring during the night period, 10 pm to 7 am. Thus, determining the split of aircraft traffic during the day and night period is essential. The proportion of activity differs for the various types of aircraft activity.

In San Antonio, 85.8 percent of air carrier activity occurs during the day period with the remaining 14.2 percent assigned to the night period. Air taxi and commuter activity was found to occur almost entirely during the day period. A total of 97 percent of this activity was therefore assigned to the day period with the remaining 3 percent occurring at night. A total of 90 percent of general aviation and military activity occurred during the day period with the remaining 10 percent assigned to the night period. These overall proportions are comparable to similar facilities nationwide.

3-3.7 Aircraft Activity Levels

Aircraft activity levels for current conditions are shown in Table 3-3, Aircraft Fleet Mix Assignments. This table itemizes input data entered into the INM. Aircraft activity has been grouped by aircraft type in accordance with the assignments of INM equivalent aircraft for the current mix at San Antonio.

Of greatest interest is the assignment of air carrier heavy jet aircraft. These aircraft dominate the fleet mix at San Antonio in terms of noise emissions. Thus, they are main determinants of the noise contour size. Air carrier aircraft are currently in a "change over" period as older low bypass ratio turbofan powered aircraft such as the B-737-200 and B-727-200 are replaced by newer quieter aircraft such as the B-737-300 and the MD-81. These classes of aircraft are differentiated into Stage 2 and Stage 3 under Federal Aviation Regulations Part 36. Stage 2 aircraft, the older noisier types, constitute approximately 69 percent of the total US domestic airline fleet. In San Antonio, Stage 2 aircraft currently constitute 78 percent of the air carrier fleet. This proportion is consistent with expectations. San Antonio has a slightly higher proportion of older aircraft because of the nature of traffic demand. Current demand favors the use of smaller, narrow body aircraft which are primarily Stage 2 aircraft. This is expected to change substantially throughout the future period as the production of all Stage 2 aircraft has ceased and newer technology Stage 3 aircraft are purchased as replacements.

Table 3-3 also indicates the breakout of heavy jet aircraft by flight length category, also referred to as "stages" or stage length in increments of 500 miles. The majority of traffic, just over 60 percent, is in the 0 to 500 mile category. The 500 to 1000 miles category accounts for an additional 30 percent. The remaining ten percent is in the 1000 to 1500 mile category. These splits differ somewhat between the various aircraft types as they are based directly on schedule and destination information from the respective air carriers.

Commuter/air taxi, general aviation and military traffic is also shown on Table 3-3. While these aircraft represent the bulk of traffic at 62.5 percent of total operations, their contribution to noise impact is relatively low because of the substantially reduced noise emissions of propeller driven aircraft. Table 3-4 indicates all of the aircraft types operating at San Antonio International Airport.

Table 3-1

SAN ANTONIO PART 150
RUNWAY USE STATISTICS
ALL TAKEOFFS AND LANDINGS

	RUNWAY					
	12R	12L	30L	30R	03	21
AIR CARRIER	89%	0	2.7%	0	7.3%	1%
AIR TAXI/ COMMUTER	89%	0	2.7%	0	7.3%	1%
GENERAL AVIATION/ MILITARY	53%	36%	1.6%	1.1%	7.3%	1%

Table 3-2

SAN ANTONIO PART 150
DEPARTURE TRAFFIC FLOW

North - 55%

East - 26%

West - 13%

South - 6%

SAN ANTONIO INTERNATIONAL AIRPORT
FAR PART 150 STUDY
AIRCRAFT FLEET MIX ASSIGNMENTS
EXISTING CONDITIONS 1987

AIRCRAFT TYPE/ ENGINE TYPE	TOTAL DAILY OPERATIONS	DAY PERIOD OPERATIONS	NIGHT PERIOD OPERATIONS	TAKEOFF BY STAGE LENGTH(IN NAUTICAL MILES) 0-500 DAY	0-500 NIGHT	500-1000 DAY	500-1000 NIGHT	1000-1500 DAY	1000-1500 NIGHT	LANDINGS DAY	LANDINGS NIGHT
AIR CARRIER											
B737QN/JT8D-9QN	79.46	71.28	8.18	22.02	3.86	10.44	0	3.18	0.23	35.64	4.09
B727Q9/JT8D-9QN	77.62	64.90	12.72	19.52	3.63	11.8	2.5	1.13	0.23	32.45	6.36
B737300/CFM56	24.06	20.88	3.18	7.94	1.59	1.82	0	0.68	0	10.44	1.59
MD-81/JT8D-209	18.16	14.98	3.18	4.77	0.91	1.59	0.45	1.13	0.23	7.49	1.59
DC-10-10/CF6-6D	2.72	1.36	1.36	0.45	0.68	0.23	0	0	0	0.68	0.68
AIR TAXI/COMMUTER											
DHC-6/PT6A-50	11	11	0	5.5	0					5.5	0
SD3-30/PT6A45	3	2.5	0.5	1.25	0.25					1.25	0.25
HS 748/DART	1.5	1.5	0	0.75	0					0.75	0
CNA441/TPE331	24.5	23.76	0.74	11.88	0.37					11.88	0.37
GENERAL AVIATION											
SABRELINER/CF700	22	20	2	10	1					10	1
CNA441/TPE331	26	24	2	12	1					12	1
BEECH BARON/TSIO52	66	60	6	30	3					30	3
SINGLE ENGINE G.A.	162	146	16	73	8					73	8
HELICOPTER(B212)	8	7.2	0.8	3.6	0.4					3.6	0.4
MILITARY											
CNA441/TPE331	7	6.3	0.7	3.15	0.35					3.15	0.35
HELICOPTER(B212)	7	6.3	0.7	3.15	0.35					3.15	0.35
TOTAL OPERATIONS	540.02	481.96	58.06	208.98	25.39	25.88	2.95	6.12	0.69	240.98	29.03

Table 3-3

Table 3-4

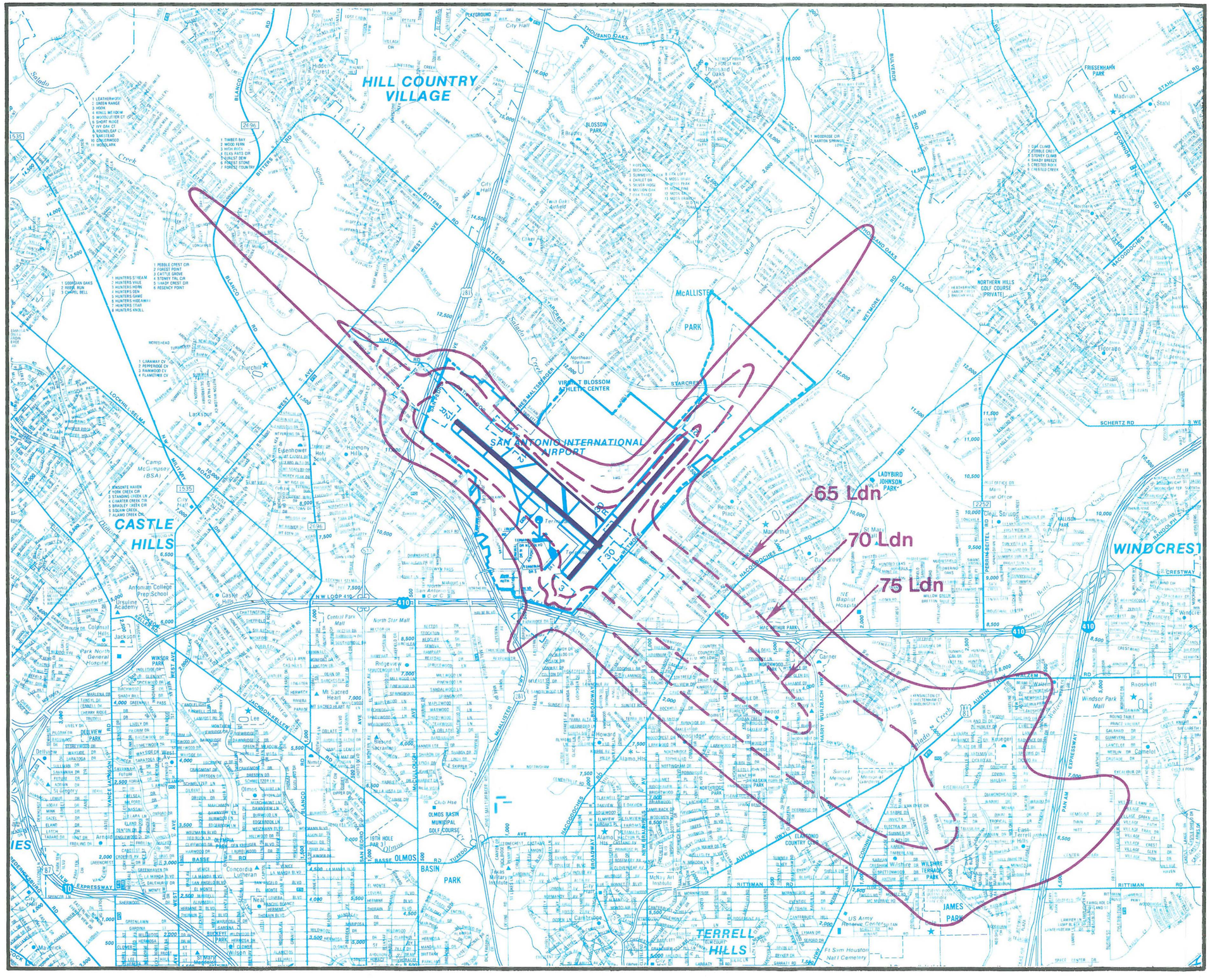
SAN ANTONIO PART 150 STUDY
Current Aircraft Fleet - 1987

Actual Aircraft Types
DC-9-10
DC-9-30
DC-9-50
B-737-200
B-727-200
B-727-100
B-737-300
B-757
B-767
MD-80
DC-10
L-1011
L-1011-500
C-212
Bandeirante
Metro
Gulfstream 1
Business Jet
Twin Engine Turbo
Twin Engine Piston
Single Engine Piston
Helicopter

Section 3-4: EXISTING NOISE CONTOURS

The input data was computed using INM Version 3.9. The resulting noise contours can be seen in Figure 3-2. The plots indicate three differing levels of impact, Ldn 65, 70 and 75. The Ldn 65 contour encompasses approximately 10.0 square miles. This includes all areas above Ldn 65. Ldn 70 covers an area of 4.3 square miles. Ldn 75 is confined to 1.8 square miles.

As can be seen from inspection, noise impacts to the southeast predominate reflecting the heavy use of Runway 12R for takeoffs and the fact that the majority of departing traffic is north bound. Impacts to the northeast also reflect the dominance of takeoff noise on Runway 3. The areas to the southwest and the northwest reflect the fact that the majority of use is by arriving aircraft which are normally quieter than departing aircraft.



N

Scale

1"=4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Noise Exposure Map

1987 NOISE CONTOURS

Section 3-5: PROJECTED 1993 NOISE EXPOSURE

FAR Part 150 calls for the projection of noise exposure for the fifth calendar year from the assessment of existing conditions. Noise contours were prepared to reflect the expected change.

For 1993 the majority of basic input data remained unchanged. In addition to temperature and altitude, the flight tracks, runway and flight track use splits, the day night split and the proportion of traffic by flight length were held constant. There were, however, significant changes to the volume of activity and the distribution of aircraft between Stages 2 and 3.

The breakout of traffic levels by aircraft type for 1993 are shown in Table 3-5, 1993 Aircraft Fleet Mix Assignments. The total activity levels are consistent with the forecast future increases in traffic levels. The proportion of Stage 2 aircraft declines to 57 percent. This is consistent with expectations about the national fleet. Recent industry data indicates that the Stage 2 proportion is declining at the rate of approximately six percent per year. The volume of Stage 2 aircraft activity at San Antonio is expected to remain approximately constant between the existing and five year future, 157 average daily Stage 2 aircraft operations in 1987 versus 146 in 1993. Since there are no Stage 2 aircraft currently being manufactured, all the assumed additional traffic is by Stage 3 aircraft types. Large increases are therefore seen in the activity levels of the B-737-300 and the MD-81 aircraft types.

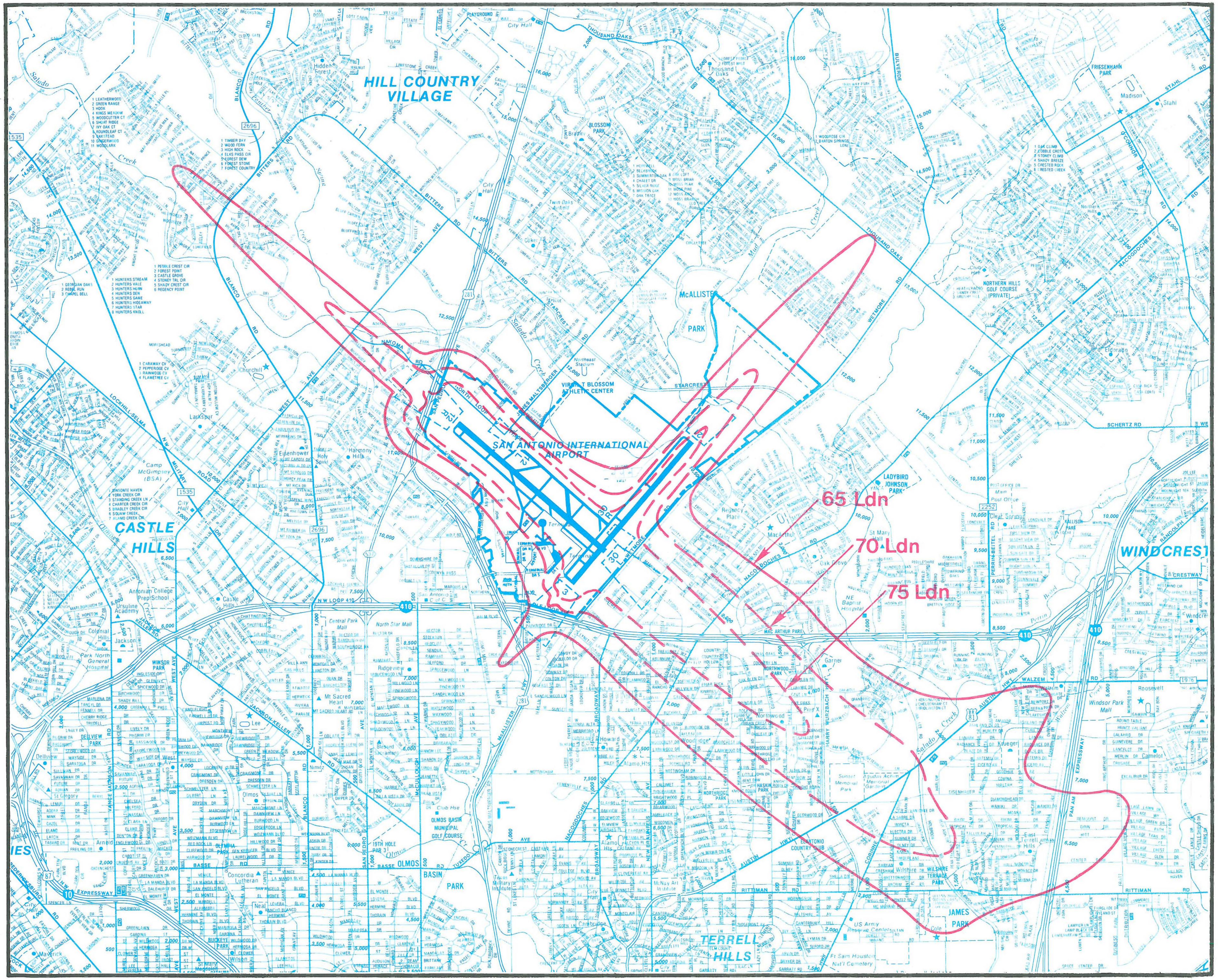
General aviation, commuter and military traffic increase slightly, but have little effect on the noise contours.

The resulting noise contours are shown in Figure 3-3. The contours are virtually identical to the 1987 case. A total of 9.9 square miles is contained within Ldn 65, 4.3 square miles with Ldn 70 and 1.7 square miles within Ldn 75. The increases in traffic do not have a significant impact on the contours since the added traffic is relatively quiet in comparison to the remaining Stage 2 fleet still in service. The pattern of the contours is also largely the same since the assumptions for runway and flight track use remain unchanged.

SAN ANTONIO INTERNATIONAL AIRPORT
FAR PART 150 STUDY
AIRCRAFT FLEET MIX ASSIGNMENTS
FORECAST FUTURE - 1993

AIRCRAFT TYPE/ ENGINE TYPE	TOTAL DAILY OPERATIONS	DAY PERIOD OPERATIONS	NIGHT PERIOD OPERATIONS	TAKEOFFS BY STAGE LENGTH(IN NAUTICAL MILES) 0-500 DAY	0-500 NIGHT	500-1000 DAY	500-1000 NIGHT	1000-1500 DAY	1000-1500 NIGHT	LANDINGS DAY	LANDINGS NIGHT
AIR CARRIER											
B737QN/JT8D-9QN	73.00	65.48	7.52	23.23	3.86	9.59	0	2.92	0.23	32.74	3.76
B727Q9/JT8D-9QN	73.00	61.04	11.96	18.36	2.5	11.1	2.5	1.06	0.23	30.52	5.98
B737300/CFM56	60.00	52.08	7.94	19.8	1.59	4.54	0	1.7	0	26.03	3.97
MD-81/JT8D-209	38.98	32.16	6.82	10.24	0.91	3.41	0.45	2.43	0.23	16.09	3.41
DC-10-10/CF6-6D	10.00	5.00	5.00	1.65	0.68	0.85	0	0	0	2.5	2.5
AIR TAXI/COMMUTER											
DHC-6/PT6A-50	13	11.7	1.3	5.85	0.65					5.85	0.65
SD3-30/PT6A45	5	4.5	0.5	2.25	0.25					2.25	0.25
CNA441/TPE331	27	24.3	2.7	12.15	1.35					12.15	1.35
GENERAL AVIATION											
SABRELINER/CF700	33	29.8	3.2	14.9	1.6					14.9	1.6
CNA441/TPE331	33	29.8	3.2	14.9	1.6					14.9	1.6
BEECH BARON/TSIO52	69	62.2	6.8	31.1	3.4					31.1	3.4
SINGLE ENGINE G.A.	152	136.8	15.2	68.4	7.6					68.4	7.6
HELICOPTER(B212)	12	10.8	0.12	5.4	0.06					5.4	0.06
MILITARY											
CNA441/TPE331	5.5	4.96	1.08	2.48	0.54					2.48	0.54
HELICOPTER(B212)	5.5	4.96	1.08	2.48	0.54					2.48	0.54
TOTAL OPERATIONS	609.98	535.58	74.42	233.19	27.13	29.49	2.95	8.11	0.69	267.79	37.21

Table 3-5



N

Scale

1"= 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Future Noise Exposure Map

1993 NOISE CONTOURS

Section 3-6: HISTORICAL NOISE IMPACTS - 1978

Although not required under Part 150, both historical and long term future noise impact determinations are useful in measuring or assessing the noise impacts through time. As in the previous case, the basic assumptions used in noise modelling remained the same except for fleet mix and activity levels. In this case the traffic levels were developed directly from records of air service activity.

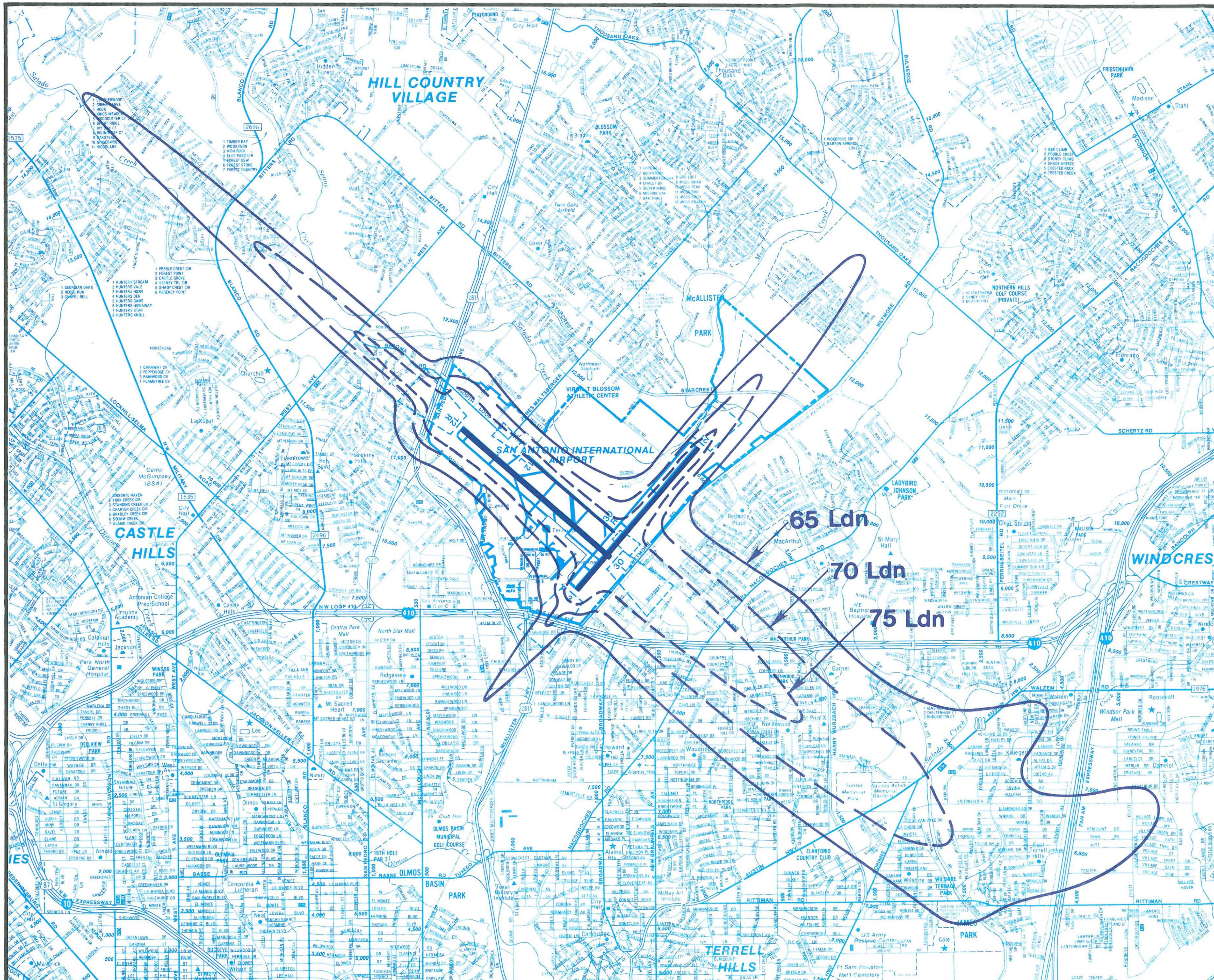
The details of the historical fleet mix are shown in Table 3-6. Operational levels for air carrier aircraft in 1978 were substantially lower than in the 1987 determination. Average daily heavy jet activity amounted to 161 daily operations as opposed to 202 in 1987. However, at that time the air carrier fleet was almost entirely Stage 2 aircraft.

The resulting noise contours are shown in Figure 3-4. The contours are similar in both size and shape. The total Ldn 65 area was 9.5 square miles for 1978, approximately eight percent smaller than the 1987 total. The 1978 Ldn 70 encompassed 4 square miles while Ldn 75 was 1.6 square miles as compared to 4.3 and 1.8 square mile respectively in 1987. The contours can be seen to be slightly narrower, but longer with the total areas comparable. The situation has remained largely unchanged over the last decade with respect to total noise impact because of the trend toward quieter aircraft offsetting traffic growth.

SAN ANTONIO INTERNATIONAL AIRPORT
FAR PART 150 STUDY
AIRCRAFT FLEET MIX ASSIGNMENTS
PAST CONDITIONS - 1978

AIRCRAFT TYPE/ ENGINE TYPE	TOTAL DAILY OPERATIONS	DAY PERIOD OPERATIONS	NIGHT PERIOD OPERATIONS	TAKEOFFS BY STAGE LENGTH(IN NAUTICAL MILES) 0-500 DAY	0-500 NIGHT	500-1000 DAY	500-1000 NIGHT	1000-1500 DAY	1000-1500 NIGHT	LANDINGS DAY	LANDINGS NIGHT
AIR CARRIER											
B737/JT8D-9	44.28	38.24	6.04	18.11	3.02	1.01	0	0	0	32.74	3.76
B727200/JT8D-7	110.70	102.64	8.06	35.22	1.01	14.09	3.02	2.01	0	30.52	5.98
DC-10-30/CF6-50C2	6.04	6.04	0.00	2.01	0	0	0	1.01	0	2.5	2.5
AIR TAXI/COMMUTER											
SD3-30/PT6A45	18	18	0	9	0					9	0
CNA441/TPE331	27	24.3	2.7	12.15	1.35					12.15	1.35
GENERAL AVIATION											
BEECH BARON/TSIO52	195	175.5	19.5	87.75	9.75					87.75	9.75
SINGLE ENGINE G.A.	274	246.6	27.4	123.3	13.7					123.3	13.7
HELICOPTER(B212)	20	18	2	9	1					9	1
MILITARY											
CNA441/TPE331	3.5	3.16	0.34	1.58	0.17					1.58	0.17
HELICOPTER(B212)	3.5	3.16	0.34	1.58	0.17					1.58	0.17
TOTAL OPERATIONS	702.02	635.64	66.38	299.7	30.17	15.1	3.02	3.02	0	310.12	38.38

Table 3-6



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

1978 NOISE CONTOURS

Section 3-7: FUTURE NOISE CONTOURS

3-7.1 Forecast Year 2007

A final noise contour determination was completed based on expected long term trends in aircraft fleet changes and activity levels. In this case, the assumption used was a fleet consisting entirely of Stage 3 compliant aircraft. All the noisier Stage 2 aircraft should be phased out of the commercial domestic air carrier fleet by that time. Activity levels are consistent with current forecast expectations. All other assumptions in noise contour development remained the same.

The details of the INM input data are shown in Table 3-7. The fleet described there is heavily weighted toward quiet aircraft types. All of these aircraft are compliant with FAR Part 36 Stage 3 and in some cases are substantially quieter than called for in the regulations. All of the aircraft shown, however, are currently in production. Thus, there is no reliance on anticipated technological changes, simply the eventual turnover of the air carrier fleet. The general aviation, commuter and military fleet remains largely the same with the exception of the substitution of a quiet widebodied business jet, the Canadair Challenger, as a replacement for the Sabreliner.

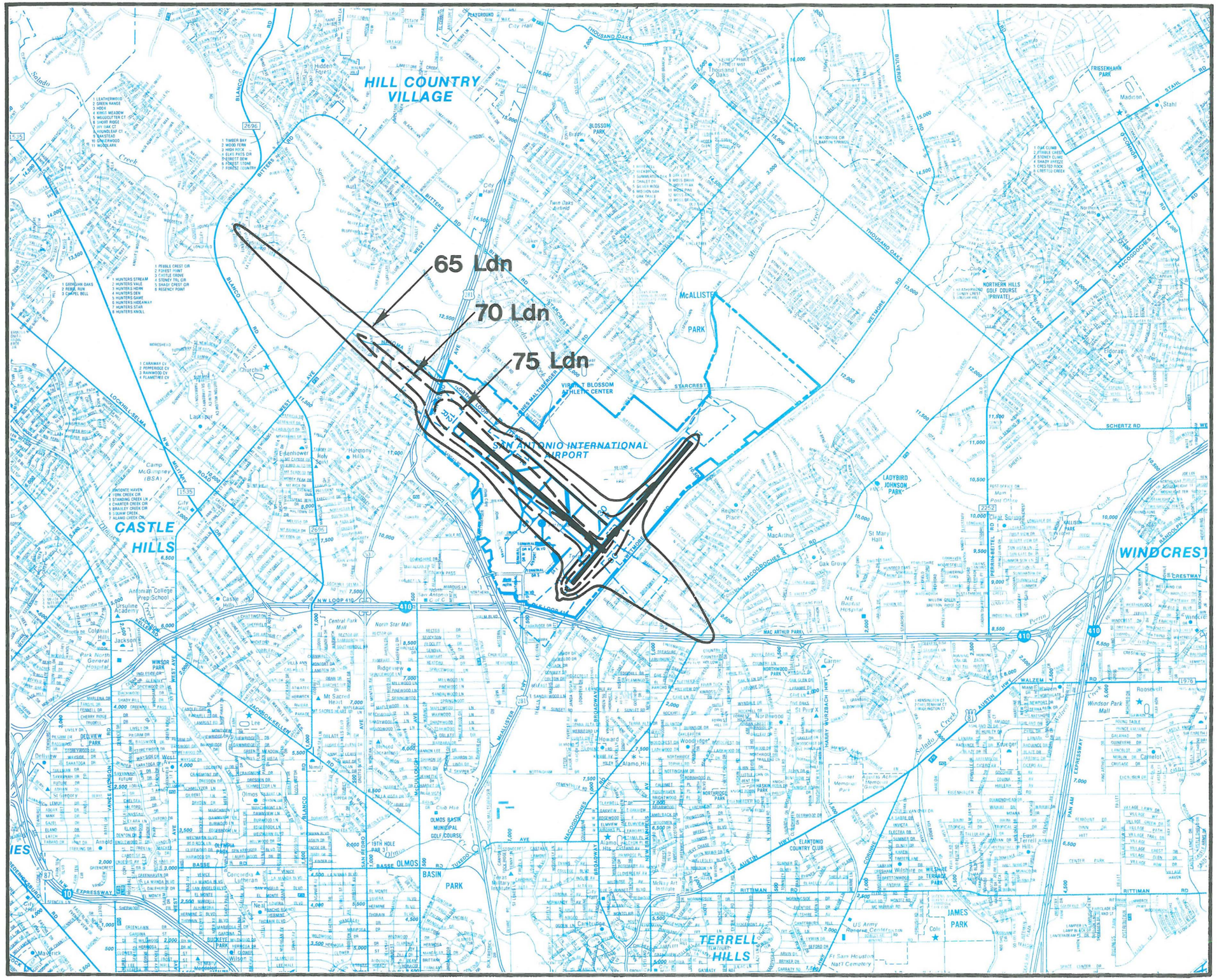
Total activity at the airport is expected to increase approximately 42 percent. Air carrier activity, however, nearly doubles with a 90 percent increase over current air carrier traffic levels forecasted for the long term future.

The resulting noise contours are exhibited in Figure 3-5. As can be seen by inspection, the disappearance of Stage 2 aircraft is accompanied by a near collapse of the noise contours. The Ldn 65 contour is reduced to 1.8 square miles. Ldn 70 drops to 0.7 square miles. Ldn 75 remains entirely on airport property encompassing 0.3 square miles in two islands on the main air carrier runways. This eventual drastic reduction is consistent with industry wide expectations. Depending on future federal policy, noise reductions on this order of magnitude could occur as early as the Year 2000. In any event, this will take place within the forecast future period as it takes approximately 20 years for a full turn-over of the national air carrier aircraft fleet.

SAN ANTONIO INTERNATIONAL AIRPORT
FAR PART 150 STUDY
AIRCRAFT FLEET MIX ASSIGNMENTS
FORECAST FUTURE - 2007

AIRCRAFT TYPE/ ENGINE TYPE	TOTAL DAILY OPERATIONS	DAY PERIOD OPERATIONS	NIGHT PERIOD OPERATIONS	TAKEOFF BY STAGE LENGTH(IN NAUTICAL MILES) 0-500 DAY	0-500 NIGHT	500-1000 DAY	500-1000 NIGHT	1000-1500 DAY	1000-1500 NIGHT	LANDINGS DAY	LANDINGS NIGHT
AIR CARRIER											
B737300/CFM56	199.46	175.52	23.94	52.66	11.37	26.33	0	8.78	0.6	87.76	11.97
B757/PW2037	40.82	35.92	4.90	10.78	1.47	6.29	0.86	0.9	0.12	17.96	2.45
B767/CF6	35.34	31.10	4.24	9.33	1.27	5.44	0.74	0.78	0.11	15.55	2.12
A-300/CF6	7.68	6.76	0.92	2.19	0.46	1.18	0	0	0	3.38	0.46
BAE146/ALF 502R-5	100.28	88.24	12.04	28.68	6.02	15.44	0	0	0	44.12	6.02
AIR TAXI/COMMUTER											
DHC-6/PT6A-50	3.84	3.38	0.46	1.69	0.23					1.69	0.23
DHC-8/PW120	11.50	10.12	1.38	5.06	0.69					5.06	0.69
GENERAL AVIATION											
CL-601/CF34	48.22	43.4	4.82	21.7	2.41					21.7	2.41
CNA441/TPE331	59.18	53.26	5.92	26.63	2.96					26.63	2.96
BEECH BARON/TSIO52	82.46	74.22	8.24	37.11	4.12					37.11	4.12
SINGLE ENGINE G.A.	153.98	138.58	15.4	69.29	7.7					69.29	7.7
HELICOPTER(B212)	14.52	13.06	1.46	6.53	0.73					6.53	0.73
MILITARY											
CNA441/TPE331	5.48	4.94	0.54	2.47	0.27					2.47	0.27
HELICOPTER(B212)	5.48	4.94	0.54	2.47	0.27					2.47	0.27
TOTAL OPERATIONS	768.24	683.44	84.8	276.59	39.97	54.68	1.6	10.46	0.83	341.72	42.4

Table 3-7


65 Ldn
70 Ldn
75 Ldn
HILL COUNTRY VILLAGE
SAN ANTONIO INTERNATIONAL AIRPORT
CASTLE HILLS
TERRELL HILLS
WINDCREST
McALLISTER PARK
NORTHERN HILLS GOLF COURSE (PRIVATE)
OLMOS BASIN MUNICIPAL GOLF COURSE
BASSE OLMOS BASIN PARK
LADYBIRD JOHNSON PARK
JAMES PARK
ELANTONIO COUNTRY CLUB
WILSHIRE TERRACE PARK
FRIESENHAHN PARK
Camp McGimpsey (BSA)
Ft Sam Houston Nat'l Cemetery
US Army Reserve Center
Central Park Mall
North Star Mall
Windsor Park Mall
Northeast Baptist Hospital
Methodist Hospital
Park North General Hospital
Antonian College Prep School
Ursuline Academy
Incarnate Word College
Our Lady of the Lake University
Trinity University
Oblate School of Theology
Mt Sacred Heart
Concordia Lutheran
Alamo Heights
Terrell Hills
Olmos Park
Windcrest
Thousand Oaks
Twin Oaks Airfield
Eisenhower
Lackland
Harmony Hills
Holy Spirit
Hidden Forest
Blossom Park
Regency Place
Oak Grove
St Mary Hall
Northwood
Woodridge
Alamo Hts
Jackson
Lee
Howard
Nimitz
Dellview Park
Arnold
Roosevelt
Carver
Krueger
Camelot
Walzem
Eldorado
Madrid
Stahl
Colonial Hills
Mission Hills
Monte Vista
Terrell Hills
Castle Hills
Olmos Park
Windcrest
Alamo Heights
Northwood
Woodridge
Thousand Oaks
Stinson Municipal Airport
Salado Creek
Olmos Creek
Leon Creek
Blanco Rd
Bitters Rd
Nacogdoches Rd
Thousand Oaks
Starcrest
Wetmore Rd
Schertz Rd
Walzem Rd
Rittiman Rd
Perrin Beitel Rd
Stahl Rd
O'Connor Rd
Jones Maltsberger Rd
Harry Wurzbach Hwy
Austin Hwy
Broadway
Mc Allister
Mac Arthur Park
Lockhill-Selma
Military Dr
Jackson Keller
Basse Rd
Tuxedo
Pan Am Expressway
N W Loop 410
I-10 Expressway
I-35
I-410
I-281
I-37
I-87
N
Scale
1"=4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
2007
NOISE CONTOURS

CHAPTER 4: LAND USE COMPATIBILITY ANALYSIS

Section 4-1: INTRODUCTION

One of the significant advantages in the application of the Ldn measurement system is its ability to correlate various levels of cumulative noise impact with recognized standards of land use compatibility. These standards or guidelines have been extensively researched in a wide variety of civilian and military situations including differing community settings and densities of development. They are reliable predictors of normal or average responses of individuals to elevated noise exposure. However, there may be a number of reasons for individual or collective differences between the expected human responses and those that may actually occur in a specific situation. It is for this reason that these criteria are best understood as guidelines which allow for interpretation based on local circumstances as opposed to rigorous standards which lead to strict enforcement. Factors which should be recognized in understanding land use compatibility on the local level are as follows.

4-1.1 Ambient Noise

Within the context of a Part 150 determination, ambient noise refers to the level of background noise which occurs as a result of community activity other than aviation. Ambient noise levels can vary widely depending on such factors as proximity to highways, railroads or industry. In areas where the ambient noise levels reach or exceed the noise levels generated by aircraft activity, the area is considered compatible even when not in compliance with the compatibility guidelines. Community noise levels are generally well correlated with the overall density of development. Levels in excess of Ldn 65 are common in high density urban residential areas.

4-1.2 Characteristics of the Population

Land use compatibility guidelines are not meant to infer that a specific individual or household necessarily will react precisely as predicted. There can be substantial subjective divergence from the average or typical reaction. Land use compatibility deals with characteristics of an overall population. Some of the factors which lead to individual differences in the toleration of aircraft noise are discussed below.

People differ in their reactions to elevated noise levels due to age and physical condition. Both children and older adults can have greater sensitivity to noise than the norm for those in middle years. Individuals under physical or emotional stress may also show decreased tolerance for noise.

Familiarity with the causes of the noise, the personal implications lying behind that activity, and direct personal interest have a strong influence on opinions and toleration. Individuals familiar with aircraft and their operation often exhibit increased toleration to noise. Individuals who have direct or indirect interests in aircraft operation or associated industries

often have increased toleration for noise because they clearly perceive its benefits.

Individual circumstances and life style can also strongly affect tolerance. Such factors as type of employment, different time of normal work period and preferences for leisure time activity can affect toleration and compatibility.

4-1.3 Character of the Source

The characteristics of the source noise itself can affect personal attitudes. The relative loudness and frequency of the aircraft movement can cause differences in response which are often not predicted by the Ldn analysis. Loud events at night, for example, can be especially distressing even when infrequent.

Even though composed of relatively quiet noise events, continued increases in activities can arouse concerns about the needs for controls or limits.

4-1.4 Character of the Environment

Generally, noise impacts cause greater degrees of incompatibility in warm climates. This is due to the greater preference for outdoor living, from the increased need for ventilation and from the lengthened season when interference can occur. Conversely, warm climate areas may also have a greater proportion of homes which are climate controlled through air conditioning. Often the combination of a sealed building envelope and additional thermal insulation may tend to limit noise interference with human activities within homes.

In climates where stable wind conditions can endure for long periods, areas which generally have limited noise exposure will sustain prolonged or unbroken periods of overflight. During these periods considerable adverse reaction can occur even when annual exposures are limited in extent.

4-1.5 Understanding of Land Use Incompatibility

In summary, the overriding realization is that any definitive conclusions on land use compatibility should be approached with caution and with a clear understanding of the underlying factors which affect human responses to noise and aircraft overflight. Areas which are noted as incompatible may contain substantial numbers of individuals who tolerate the degree of impact without complaint or significant adverse reaction. Alternatively, areas which are shown to be compatible may have individuals who react strongly to the moderate impacts which exist. Thus, the noise contours and compatibility determinations should not be construed so as to assume that no adverse reaction takes place in areas outside them. Nor should it be assumed that areas within the contours are necessarily devastated or unlivable. Most importantly, given the partially subjective nature of human responses to noise, the compatibility determinations should not be considered so

definitive that they necessarily infer that any particular individual is tolerant or intolerant of the noise exposure shown to exist. Rather they refer to a general expectation based on the average responses of population as a whole. These realizations have important implications for determining what specific land use strategies and controls will be most beneficial to the population surrounding the airport.

Section 4-2: LAND USE COMPATIBILITY GUIDELINES

Land use compatibility guidelines are shown in Table 4-1, Land Use Compatibility with Yearly Day-Night Average Sound Levels. These guidelines are drawn verbatim from FAR Part 150. These guidelines are recommendations and they can be modified through determinations by local authorities. However, the guidelines have been found to be consistently useful and reasonably accurate in many noise abatement planning studies throughout the United States. Where local interpretations have been found to be useful, these have often rested on reasonable assumptions of a greater degree of compatibility rather than a lesser degree. Local authorities tend to view these land use compatibility standards in the most conservative light in enforcing prudent protective measures for new development on undeveloped land so as to prevent the expansion of a known problem. This is especially true for such preventive measures as noise insulation.

Note on Table 4-1 that the compatibility of many uses is dependent on adequate provisions for noise insulation to protect interior habitable areas. Noise insulation has significant benefits beyond the attenuation of aircraft noise. High levels of ambient noises are similarly attenuated and there is usually improvement in energy conservation. The primary drawback to the use of noise insulation to insure compatibility is that it cannot affect outdoor noise exposure. Responses to elevated noise levels are more closely keyed to exterior noise levels in residential areas than to interior levels. Moreover, the benefits of noise insulation are substantially reduced when windows are open. Thus, incompatibility determinations offered later in this chapter, are based upon the Compatibility Table which is interpreted conservatively with respect to community land uses such as residences, schools, etc. Uses which are provisionally compatible based on the degree of noise insulation are nominally considered incompatible except for industrial and commercial uses which are typically less sensitive. Industrial and commercial uses typically do not have operating windows, are frequently more massive structures and are often unused during the night period.

In any event, implementation of these guidelines is strictly in the domain of local land use authorities and not a function of airport management or the FAA. Within the context of FAR Part 150, the use of these standards is most helpful in assessing noise control measures. The objective of assessing the various controls on airport noise is a clearer understanding of how those controls will affect the areas population as opposed to reducing the exposed acreage or enacting changes which simply shift the noise burden from one community area to another.

LAND USE COMPATIBILITY* WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVELS

Land use	Yearly day-night average sound level (L_{dn}) in decibels					
	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	Y	N(1)	N(1)	N	N	N
Hospitals and 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)	Y(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(5)	Y(5)	N	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

Numbers in parentheses refer to notes.

*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 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

SLUCM = Standard Land Use Coding Manual.
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, or 35 = Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

NOTES

(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 5, 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 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 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 level is low.
(5) Land use compatible provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25.
(7) Residential buildings require an NLR of 30.
(8) Residential buildings not permitted.

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

LAND USE COMPATIBILITY

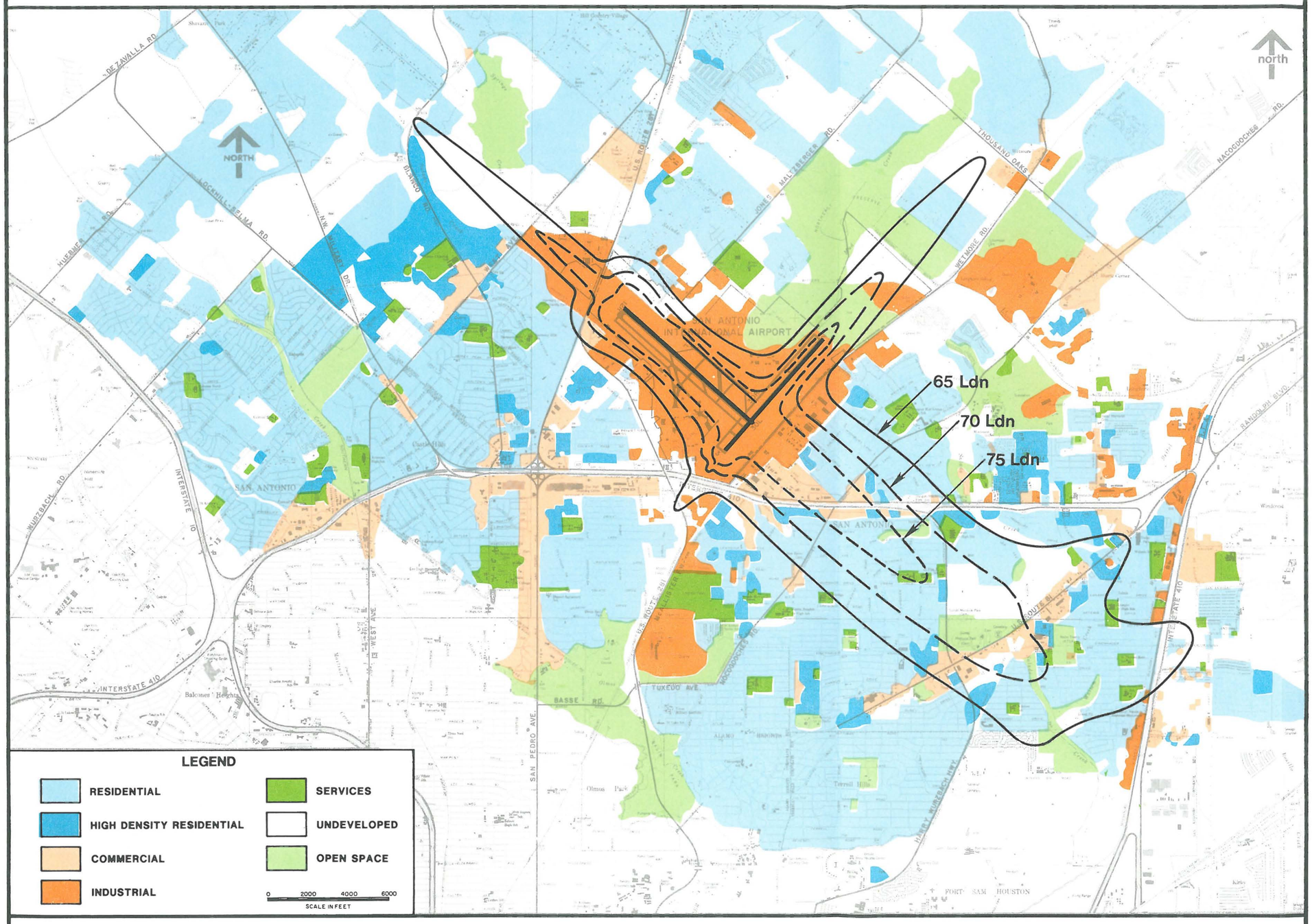
Section 4-3: OFF AIRPORT NOISE IMPACT

4-3.1 Land Use

Figures 4-1 and 4-2 depict the existing (1987) and forecast future (1993) noise contours superimposed on the map of existing land uses surrounding San Antonio International Airport. In order to assess the impact of aircraft generated noise on areas surrounding San Antonio International Airport, detailed measurements of all areas within Ldn 65 and above, but not within the airport boundary were measured. Results of the measurements for the base year 1987 are shown on Table 4-2. Similar data based on the projected 1993 noise contours is shown on Table 4-3.

As expected, the largest area of impact and virtually all off airport areas impacted by Ldn 70 and above are to the southeast surrounding the main departure flight track. Over 80 percent of the affected off airport area for both time periods lies there. To the southwest, the impacts are negligible with less than one percent of the total off airport acreage found there. To the northwest, the total affected area includes approximately 10 percent of the total acreage. The remaining five percent of the off airport area is found to the northeast.

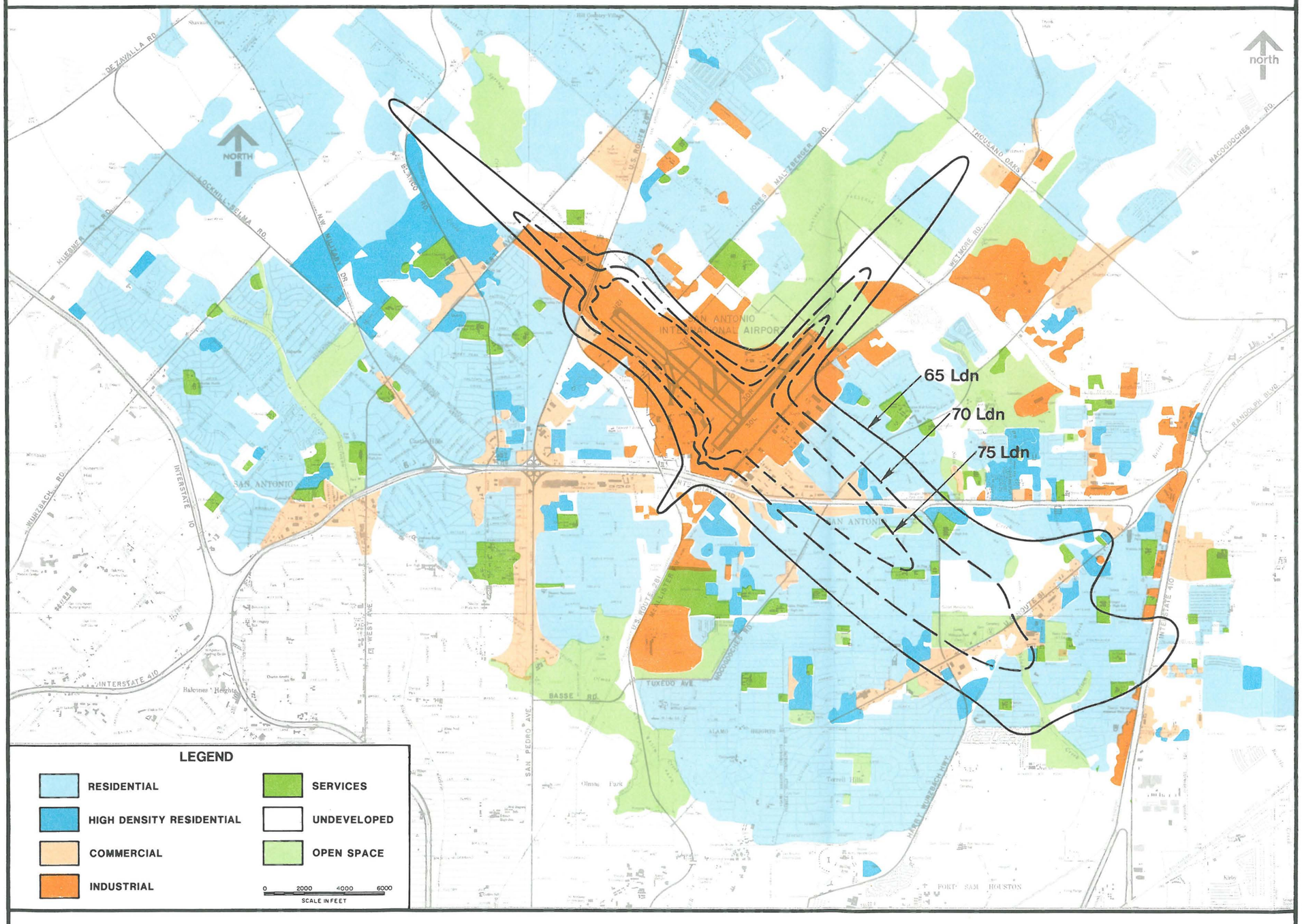
For areas to the southeast, roughly 60 percent of the affected area lies between the Ldn 65 and 70 contour interval. Approximately one half that amount, 30 percent of the affected area lies between the Ldn 70 and 75 contour interval. The remaining ten percent is within Ldn 75. Overall impacts are significantly less off the three remaining runway ends. Impacts to the southwest are minimal. Areas to the northwest are limited due to the fact that the majority of land is vacant. Impacts to the northeast are limited in that all areas above Ldn 70 are confined entirely to airport property.



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

EXISTING LAND USE WITH 1987 NOISE CONTOURS



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

EXISTING LAND USE WITH 1993 NOISE CONTOURS

Table 4-2

SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Study
Land Use Impact Summary
1987 Noise Contours
ALL AREAS IN ACRES

LAND USE	1987 LDN Levels 65-70	70-75	75+	TOTAL ACREAGE BY USE
SOUTHEAST				
LOW DENSITY RESIDENTIAL	1,393	559	202	2,154
HIGH DENSITY RESIDENTIAL	182	64	19	265
COMMERCIAL	196	126	138	460
INDUSTRIAL	68	46	51	165
INSTITUTIONAL	96	21	7	124
OPEN SPACE	159	140	10	309
VACANT	255	221		476
SUBTOTAL SOUTHEAST	2,349	1,177	427	3,953
SOUTHWEST				
COMMERCIAL	19			19
INDUSTRIAL	6			6
SUBTOTAL SOUTHWEST	25			25
NORTHWEST				
LOW DENSITY RESIDENTIAL	43			43
COMMERCIAL	19	9		28
INDUSTRIAL	152	59		211
VACANT	223			223
SUBTOTAL NORTHWEST	437	68		505
NORTHEAST				
LOW DENSITY RESIDENTIAL	76			
INDUSTRIAL	1			1
OPEN SPACE	115			115
VACANT	49			49
SUBTOTAL NORTHEAST	241			241
TOTAL OFF AIRPORT AREA	3,052	1,245	427	4,724

Table 4-3

SAN ANTONIO PART 150
OFF AIRPORT LAND USE
TALLY OF ACREAGE WITHIN NOISE CONTOURS FOR 1993
ALL AREAS IN ACRES

LAND USE	1993 LDN Levels 65-70	70-75	75+	TOTAL ACREAGE BY USE
SOUTHEAST				
LOW DENSITY RESIDENTIAL	1,329	520	189	2,038
HIGH DENSITY RESIDENTIAL	168	59	22	249
COMMERCIAL	191	118	137	446
INDUSTRIAL	58	46	51	155
INSTITUTIONAL	87	23	3	113
OPEN SPACE	152	140	9	301
VACANT	256	213		469
SUBTOTAL SOUTHEAST	2,241	1,119	411	3,771
SOUTHWEST				
COMMERCIAL	20			20
INDUSTRIAL	6			6
SUBTOTAL SOUTHWEST	26			26
NORTHWEST				
LOW DENSITY RESIDENTIAL	52			52
COMMERCIAL	22	9		31
INDUSTRIAL	140	54		194
VACANT	271	4		275
SUBTOTAL NORTHWEST	485	67		552
NORTHEAST				
LOW DENSITY RESIDENTIAL	70			
INDUSTRIAL	2			2
OPEN SPACE	113			113
VACANT	40			40
SUBTOTAL NORTHEAST	225			225
TOTAL OFF AIRPORT AREA	2,977	1,186	411	4,574

Section 4-4: LAND USE INCOMPATIBILITY DETERMINATION - EXISTING CONDITIONS

A key factor in assessing the magnitude of overall noise impact is the degree of land use incompatibility. Based on the area estimates shown in Table 4-2 and 4-3, a general assessment of land use incompatibility for existing and five year future period was made. In developing this analysis, the compatibility guidelines shown in Table 4-1 were followed, but no allowance was made for the use of noise insulation since that would presume a greater degree of attenuation than is normally achieved by typical construction techniques. Thus residential land uses and institutional land uses within Ldn 65 are considered incompatible. Commercial uses are normally compatible up to Ldn 70. Industrial uses are normally compatible to Ldn 75. Open space and vacant lands as well as all airport land are considered compatible even within Ldn 75.

For areas to the southeast, a total of 1,671 acres of incompatible land uses occur within the Ldn 65-70 contour interval. This is approximately 71 percent of the total interval area. A total of 770 acres or 65 percent of the Ldn 70 to 75 band is incompatible. Virtually all areas above Ldn 75 are considered incompatible, 410 acres or 96 percent of the total.

The situation to the southwest is totally compatible since it is entirely industrial or commercial uses.

The area to the northwest is generally good as only 43 acres or less than 10 percent of the area is incompatible. Moreover, the incompatible areas are residential and at the edges of the noise contour impact area. Some incompatible commercial uses are within the sideline of the Ldn 70 noise contour. A total of 9 acres or 13 percent is nominally incompatible.

To the northeast, one major residentially developed area lies within Ldn 65 relatively close to the Ldn 65 contour closure point. This includes a total of 76 acres or 32 percent of the total off airport area in this locale.

Noise monitoring studies indicate that ambient noise levels throughout the impacted area are generally below the aircraft generated noise component. Thus, with the exception of areas adjacent to major thoroughfares, particularly expressways, little or none of the areas determined to be incompatible are or would be rendered compatible due to the dominance of ambient noise.

Section 4-5: LAND USE INCOMPATIBILITY - FUTURE CONDITIONS

The situation changes very little in the projected 1993 conditions. Overall the impact area is reduced in total only 3 percent. There is some change in the distribution of the impact area however. The total area to the southwest is reduced approximately 5 percent. The southeast remains unchanged. The area to the northwest expands approximately 11 percent. The area to the northeast is reduced nearly 7 percent.

The total areas involved within the impact area to the southeast are consistent between the two cases in terms of proportional distribution. Incompatible uses in the area to the southeast in the Ldn 65 to 70 band are reduced 87 acres, but the proportion of incompatible uses remains the same at 71 percent. The incompatible area within the Ldn 70 to 75 interval declines by 50 acres, but changes only one percent to 64 percent. Above Ldn 75, the situation improves slightly with 11 acres less in total, but deteriorates in the sense that incompatible areas will constitute 97 percent of the total.

To the southwest, the situation is virtually unchanged.

In the northwest, the compatibility determination changes minimally since the majority of additional area is vacant. An additional 9 acres of residentially developed land is enclosed, but the percentage of incompatible use declines to 11 percent.

To the northeast, the incompatible residential acreage is reduced six acres.

All the above determinations are based on the continuation of existing patterns and extent of land use in the area. Expected changes to land use are likely to be minimal because of natural constraints on undeveloped areas. The overall change in the extent of development generally is assessed below in terms of prediction in population by census tract.

Section 4-6: NOISE SENSITIVE SITES WITHIN LDN 65

A total of eleven noise sensitive sites are enclosed within the existing and future noise contours. All of these sites lie to the southeast of the airport. These include nine schools and two nursing homes. The majority of these sites, seven, are in the Ldn 65 to 70 contour area. Two schools lie on the boundary of the Ldn 75 contour. The noise sensitive sites are listed in Table 4-4 and depicted on Figure 4-3.

Table 4-4

SAN ANTONIO PART 150
NOISE SENSITIVE SITES WITHIN EXISTING LDN NOISE CONTOURS

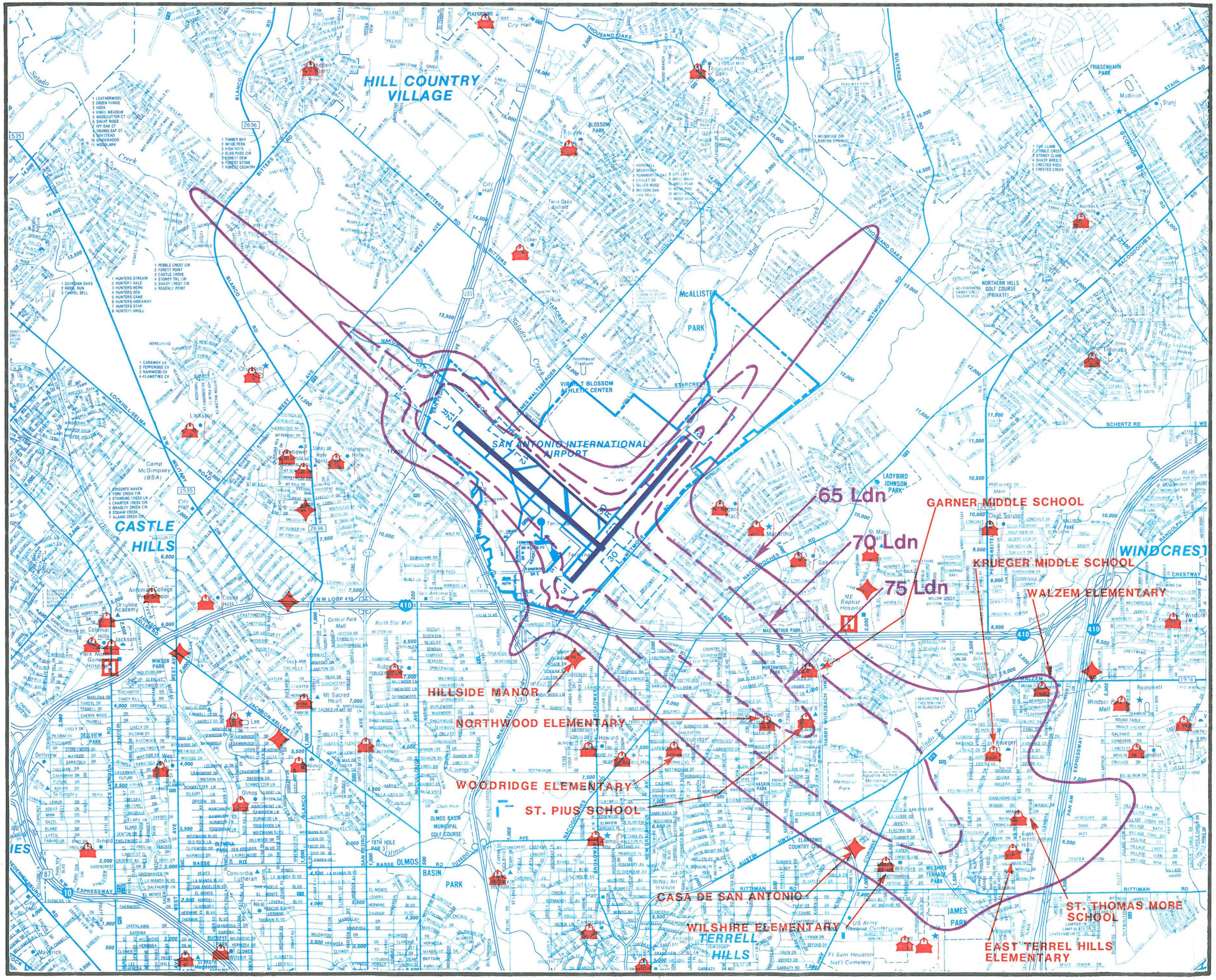
Schools

- Northwood Elememtary - Ldn 75
- St. Pius - Ldn 65
- Krueger Middle School - Ldn 65
- East Terrell Hills Elementary - Ldn 65
- Walzem Elementary School - Ldn 65
- Wilshire Elementary - Ldn 65
- Woodridge Elementary - Ldn 65
- Garner Middle School - Ldn 65
- St. Thomas More School - Ldn 65

Nursing Homes

- Hillside Manor Nursing Home - Ldn 65-70
- Casa de San Antonio - Ldn 65-70

As mentioned in Chapter 2, all churches located within the 65-75 Ldn contours are identified in Appendix D of the Study.



KEY:

- Schools
- Hospitals
- Nursing Homes

N

Scale

1"= 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

SENSITIVE LAND USES WITH

1987 NOISE CONTOURS

Section 4-7: ESTIMATED POPULATION

Detailed data on existing and projected population, broken down by each census tract which is partially included within any noise contour, are shown in Table 4-5. The complete tract boundaries for all areas around the airport are furnished on the Census Tracts Map in Chapter 2. The listing of data is in Table 4-5 in approximate clockwise order beginning to the southeast. Modest growth is suggested by the population forecast for areas south of the airport with the exception of Tract 1209.02. Virtually all of this area lies within the noise contours. Significant growth is possible in areas to the northwest and northeast. Much of this growth has already occurred as the baseline figures are for 1980. However, natural constraints to development limit the growth potential for undeveloped areas which lie within the noise contour impact area.

Table 4-6 provides a breakdown of the total residential and vacant areas within each census tract by level of noise exposure. Since these determinations reflect existing land use estimates, the figures account for the growth which has recently occurred. Total population was estimated by applying a general density factor of four units per acre in low density housing and eight units per acre for high density housing. The total number of housing units was multiplied by the average person per household shown in Table 4-5. The results of these calculations are shown in Table 4-7. As can be seen from inspection, a total residential population of 37,268 individuals is estimated to reside within the noise contours. The great majority, 73 percent are in Ldn 65 to 70. An additional 16 percent are enclosed within Ldn 70 to 75 and 11 percent within Ldn 75.

Table 4-5

SAN ANTONIO PART 150
FAR Part 150 Study
Census and Housing Data

CENSUS TRACT	LOCATION RELATIVE TO AIRPORT	1980 TOTAL POPULATION	1980 TOTAL HOUSING UNITS	AVERAGE PERSONS PER HOUSEHOLD	FORECAST 1993 POPULATION	FORECAST POPULATION CHANGE	PERCENT CHANGE	EXPECTED 1993 ADDITIONAL HOUSING
1205.1	SOUTHEAST	7,704	2,928	2.63	7,700	(4)	-0.05%	(2)
1205.02	SOUTHEAST	5,893	2,338	2.52	5,700	(193)	-3.28%	(77)
1208	SOUTHEAST	6,576	3,023	2.18	6,900	324	4.93%	149
1209.01	SOUTHEAST	3,156	1,505	2.1	3,700	544	17.24%	259
1209.02	SOUTHEAST	3,127	1,856	1.68	5,020	1,893	60.54%	1,127
1210	SOUTHEAST	6,053	2,494	2.43	6,100	47	0.78%	19
1214	SOUTHEAST	10,866	3,732	2.91	13,940	3,074	28.29%	1,056
1207	SOUTH	7,904	3,641	2.17	8,820	916	11.59%	422
1912	WEST	9,547	3,901	2.45	10,200	653	6.84%	267
1913	CENTER	5,580	3,086	1.81	6,500	920	16.49%	508
1914	NORTHWEST	7,324	3,954	1.85	33,660	26,336	359.58%	14,236
1211.01	NORTHEAST	9,142	3,377	2.71	26,460	17,318	189.43%	6,390

Table 4-6

SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Study
Residential and Vacant Land Impacts
1987 Existing Conditions
ALL VALUES IN ACRES

CENSUS	LDN 65-70:			LDN 70-75:			ABOVE LDN 75		TOTAL BY CENSUS
TRACT	LDR	HDR	VACANT	LDR	HDR	VACANT	LDR	HDR	TRACT
1205.1	445	24	42	24	13	20	0	0	568
1205.02	205	54	0	0	0	11	0	0	270
1208	260	45	0	297	17	0	141	6	766
1209.01	102	0	0	92	18	0	0	0	212
1209.02	174	48	179	37	0	190	0	0	628
1210	101	0	0	77	0	0	61	11	250
1214	12	0	34	0	0	0	0	0	46
1207	83	11	0	32	16	0	0	2	144
1912	11	0	0	0	0	0	0	0	11
1913	20	0	27	0	0	0	0	0	47
1914	12	0	196	0	0	0	0	0	208
1211.01	76	0	49	0	0	0	0	0	125
TOTALS	1,501	182	527	559	64	221	202	19	

Table 4-7

SAN ANTONIO PART 150
ESTIMATE OF POPULATION WITHIN EXISTING NOISE CONTOURS

Total Estimated Population within Ldn 65-70	27,230
Total Estimated Population within Ldn 70-75	6,040
Total Estimated Population Above Ldn 75	3,998
Total Estimated Population within All Noise Contours	37,268

CHAPTER 5: ANALYSIS OF NOISE ABATEMENT AND MITIGATION MEASURES

Section 5-1: INTRODUCTION

The authority and responsibility for evaluating noise abatement and mitigation measures to minimize the number of persons adversely affected by noise lies with a variety of federal, local, and private entities on a national level as well as local level. In other words the responsibility rests with the airport users, aircraft manufacturers, airport proprietors, federal, state, and local governments, and residents in communities and neighborhoods surrounding the airport.

The federal government has the authority and responsibility to control aircraft noise sources (engines), implement changes in operational procedures, enforce operational procedures, and manage the air traffic control system to minimize noise impacts on the surrounding community.

Airport proprietors are responsible for development action designed to reduce noise. This would include improvements in airfield design, noise abatement ground procedures, evaluating and recommending airport use restrictions which would not unjustly discriminate against any user, impede the safety and management of the airspace system, or unreasonably interfere with interstate commerce.

Local government and planning agencies are responsible for land use planning, zoning, and housing regulation that will encourage compatible land use with future airport operations.

5-1.1: Aviation Safety and Noise Abatement Act

One purpose of the Aviation Safety and Noise Abatement Act (ASNA) is to provide assistance to airport operators in preparing and carrying out noise compatibility programs. Federal Aviation Regulation (FAR) Part 150 provides guidance for airport operators, and state/local planners in developing a noise control and compatibility plan under the ASNA Act.

The Noise Compatibility Program constitutes the second of two parts required for a Noise Compatibility Study under FAR Part 150. The Noise Compatibility Program seeks an optimal accommodation of both airport operations and community activities within acceptable safety, economic, and environmental parameters. This effort involves the reduction of existing land use conflicts, either by aircraft noise abatement or by changes to the land use itself, and the prevention of new or future incompatible land uses.

The following items are cited in the FAR Part 150 checklist as being required for an acceptable submission of a noise compatibility program:

- A current FAA accepted Noise Exposure Map.
- Consultations with public, planning agencies, air carriers, and other airport users; a description of those consultations; and a summary of public comment.
- Consideration of a specified minimum group of alternatives, effectiveness of measures, feasibility of measures, and reasons for rejection.
- Relationship to the Airport Layout Plan (ALP), Master Plan, and any National, State, Regional or Local System Plans.
- The time period of the program, implementation schedule, persons responsible, and review and update schedule.

The checklist items above are a summary of the minimum requirements extracted by the FAA directly from FAR Part 150 which will be addressed by this study. The actual FAA checklist is contained in Appendix D of this document. Additional details which might further assist in documenting the value and feasibility of the Noise Compatibility Program, as well as the format in which that discussion is provided, is left to local preferences, provided that consistency with FAR Part 150 is maintained.

Section 5-2: ALTERNATIVE DESCRIPTIONS

A number of noise abatement alternatives are described and examined in this chapter for their effectiveness in reducing the noise impact surrounding San Antonio International Airport. The advantages and disadvantages inherent in each are identified with regard to the airport and its operation. This is a preliminary analysis which results in the potentially most effective alternatives being further detailed in Chapter 6. The alternatives to be investigated are:

- Relocate Airport
- Improvement of a Reliever Airport
- Noise Monitoring
- Construct Noise Barriers
- Extension of Runways and Displacement of Thresholds
- Runway 3-21 extension and threshold displacement (existing utilization)
- Runway 3-21 extension and threshold displacement (increased utilization)
- Runway 12L-30R extension; with existing use restrictions
- Runway 12L-30R extension; without use restrictions
- Restrictions on Engine Run-Ups
- Limitations on Types of Operations or Types of Aircraft
- Incentives for Airlines Introducing Noise Reduction Measures
- Capacity Limits Based on Aircraft Noise
- Landing Fees Based on Aircraft Type or Time of Day
- Noise Contour Validation
- Noise Complaint Monitoring Program
- Greater Percent of Stage 3 Aircraft
- Comprehensive Land Use Planning and Zoning
- Acoustical Treatment
- Avigation Noise Easements
- Disclosure Ordinances
- Purchase Assurance Program
- Noise Abatement Departure Profile - Thrust Cut-Back
- Flight Pattern Changes
- Equalizing, Increasing or Rotating Use of Runways
- Preferential Runway Use Procedures
- Pilot Advisory Program
- Noise Abatement Officer

Section 5-3: PRELIMINARY ALTERNATIVES EVALUATION

Evaluation of the various noise control alternatives being considered for implementation at San Antonio International Airport was based upon answers to the following questions:

- Does the alternative reduce the existing or projected annual average noise levels?
- Does the alternative reduce the number of people exposed to high levels of aircraft noise?
- Does the alternative place an undue burden on interstate or foreign commerce?

5-3.1. Alternatives under the Authority of the City of San Antonio and Department of Aviation

Relocation of Airport

Relocating San Antonio International Airport was eliminated as a possible alternative noise control action. On August 24, 1974 the City Council affirmed by resolution No. 74-43-51, that the site for development of San Antonio International Airport as the Air Carrier Airport be maintained at its present location.

Improvement of Stinson Municipal Airport as a Reliever

The improvement of Stinson Municipal Airport was reviewed as a noise reduction alternative. The City has initiated a program to rehabilitate many of the facilities at Stinson to make it more attractive to general aviation users. The improvements will aid in reducing potential capacity problems at San Antonio International by alleviating airport congestion and air traffic delays. However, little benefit is derived in terms of noise since jet aircraft are the main drivers of the noise contours.

The improvement program for Stinson will continue, however this alternative is not recommended as part of the future Noise Compatibility Program for San Antonio International Airport.

Noise Monitoring

This alternative would establish a noise monitoring system to be used to record noise levels in areas around San Antonio International Airport that experience aircraft noise problems. Permanent noise monitoring systems are costly to acquire and to operate, however portable systems can be purchased and utilized for

occasional monitoring by the Noise Abatement Officer should conditions due to noise complaints warrant its use.

Periodic monitoring, (perhaps on an annual basis), by a qualified consultant would ensure that state-of-the-art noise monitoring equipment is being utilized as well as providing the most up to date information concerning noise levels surrounding the airport. Noise monitoring at San Antonio International Airport should be considered as an alternative in conjunction with the Noise Contour Validation Alternative to be implemented in the Noise Compatibility Program.

Construct Noise Barriers

This alternative considered the benefits of placing physical barriers at key points on the perimeter of the airport to mitigate ground level aircraft noise penetration into the adjoining neighborhood. It should be noted that noise barriers, because of the limitation and height in which they could be constructed are not beneficial toward mitigation of noise from airborne aircraft. Areas of the airport were considered for noise barrier possibilities at strategic points along the southern boundary of the airport south of the Runway 30L threshold and just north of Interstate 410, and along the north airport boundary northwest of the Runway 12R threshold adjacent to U.S.281. On-site investigations of these two areas reveal that two conditions exist at these locations to minimize the effectiveness of noise barriers.

In both locations major roadways exist between the airport and noise sensitive areas. Also, commercial and other nonsensitive land uses (i.e. commercial buildings) exist between the airport boundary and the noise sensitive types of land uses. These serve the same buffering function as a noise barrier might. A third, but no less important, factor is the current restriction on time and location of aircraft engine run-ups.

For the above stated reasons noise barriers were deemed to be ineffective at San Antonio International Airport as a means of mitigating or abating the intrusion of aircraft noise into the community, and have been eliminated from further consideration in this study.

Extension of Runways and Displacement of Thresholds

This alternative consists of four possibilities for facility improvements at San Antonio International. They are: (a) extension of Runway 3-21 in a northeasterly direction approximately 1,000 feet and equal displacement of the threshold on the southwestern end and (b) an extension of Runway 3-21 similar to the previous alternatives but with increased utilization, (c) extension of Runway 12L-30R with existing limitations on turbojet operations remaining intact, (d) an extension of Runway 12L-30R with no restrictions placed upon turbojet operations. The FAA's Integrated Noise Model (INM) was used to produce noise contours for analysis of

potential noise reduction benefits.

o Extension of Runway 3-21 (Existing Utilization)

This alternative was evaluated assuming the 1,000 foot extension to the northeast and a 1,000 foot displaced threshold on the southwest end. In the preliminary review this alternative was found to produce no discernable increase nor decrease in area impacted (see Section 5-4 for comparative data). For this reason, the extension was not considered further as a means of reducing aircraft noise impact.

o Extension of Runway 3-21 (Increased Utilization)

This alternative was evaluated assuming the same extension as in the above alternative, but with an increase to twenty percent by commercial aircraft in the use of Runway 3-21 (and a corresponding decrease in use of Runway 12R-30L). General aviation activity on Runway 3-21 was increased to 15 percent. The results were an increase in area and population impacted (see Section 5-4) and for that reason this alternative was eliminated from further consideration.

o Extension of Runway 12L-30R (Restricted Use)

This alternative assumed a 1,500 extension of Runway 12L-30R for use as an air carrier runway. This allows for an increase in operational flexibility of the parallel runways. One-third of the total air carrier operations on Runway 12R-30L were shifted to Runway 12L-30R, (take-off of commercial or business jets to the southeast were not permitted according to City Council Ordinance 45503). A detailed comparison of areas impacted by this alternative is presented in Section 5-4.

The results of analysis of the alternatives indicated that increasing the runway length and use by commercial aircraft, but leaving the current operational restrictions in place, resulted in no discernable change in the area impacted. For this reason this alternative is not viewed as a noise abatement or mitigation measure and has been eliminated from further consideration.

o Extension of Runway 12L-30R (Unrestricted use)

This alternative assumed the same physical and operational characteristics as the extension of Runway 3-21 with increased utilization, however the policy regarding turbo-jet operations on Runway 12L-30R was eliminated, making the runway available for all operations.

This alternative results in a small increase in total area impacted as shown in Section 5-4, and has been eliminated from further consideration as an effective noise abatement measure.

Restrictions on Engine Run-Ups

San Antonio International Airport Rules and Regulations Section 3-94(a) presently restrict both the location and time for aircraft engine run-ups. A review of these restrictions (on file at the Airport Director's office) indicates that no further actions are warranted in this area.

The following list describes the areas set aside for engine run-ups, as well as the rules pertaining to each area, according to San Antonio Airport Rules and Regulations Section 3-94(a):

- Area 1 -Located on Taxiway Alpha between Runways 12L and 12R. This area may be used from 6:00 a.m.-11:00 p.m. It is restricted to single or light twin engine propeller driven or turboprop aircraft up to the size and weight of a Merlin.

- Area 2 -Located on Taxiway November, near the approach end of Runway 21. This area may be used from 6:00 a.m. - 11:00 p.m. for all types of aircraft.

- Area 3 -Located on Taxiway Kilo, between Taxiways Golf and Hotel, near the approach end of Runway 12R. It may be used from 6:00 a.m. -11:00 p.m. and is restricted to propeller driven or turboprop aircraft up to the size and weight of a Merlin.

- Area 4 -Located on the south ramp, near Taxiway Foxtrot at the approach end of Runway 3. The area may be used from 7:00 a.m. - 11:00 p.m., provided Runway 3 is not in use, and is restricted to single or light twin engine propeller driven or turboprop aircraft.

In addition to the above designated areas, the following applies to air carriers performing engine run-ups at the gates: Idle power checks may be conducted at the gate whenever necessary. Engine runs above idle power, but not exceeding 85% power, may be conducted at the gate between 5:00 a.m. - 11:00 p.m.

The airport has not received complaints concerning aircraft engine run-ups and continued enforcement of the present regulations should reduce any potential for such noise disturbances. Because of the limitations already in place, this alternative should be continued and considered as an element of the Noise Compatibility Program of this study.

Limitations on Types of Operations or Types of Aircraft

The City of San Antonio is actively involved in promoting economic development. Any limitations on aircraft operations including curfews or type of aircraft permitted would:

- o Reduce the quality or type of service available to the traveling public at San Antonio.
- o Hinder the economic growth of the greater San Antonio environs.
- o Place an undue burden on interstate commerce.

It can be concluded that any alternatives having limitations based on aircraft types or aircraft operations would be contrary to established City policy and have been eliminated from further study.

Incentives For Airlines Introducing Noise Reduction Measures

This alternative is considered feasible only in conjunction with alternatives which deal with: a) the type of equipment operated by the airlines or b) the method of aircraft operation. This alternative is therefore recommended to be carried forward into the program implementation phase of this study as part of the Greater Percent of Stage 3 Aircraft Alternative.

Capacity Limitations Based on Aircraft Noise

As was stated earlier, the City of San Antonio is actively involved in promoting the economic development of the area, and any limitations on aircraft operations at San Antonio International Airport would be contrary to established City policy. An analysis of aircraft schedules and flight itineraries at San Antonio indicates an extensive number of flights (36 percent) have San Antonio as a midpoint in their itinerary. If airlines limit service to San Antonio to certain aircraft types within their fleet, then service to the other airports within the itinerary of that flight will also have to be altered. The end result of such action is likely to be a reduction in the level of service to San Antonio. This is in direct opposition to the policy of the City. This alternative is eliminated from further consideration as a noise reduction alternative at San Antonio International Airport.

Landing Fees Based on Aircraft Type And Time Of Day

This alternative could be based on the noise produced by an aircraft type and when it was scheduled to operate at San Antonio International. As an example, a landing fee surcharge might be placed on passenger airline operations (specifically excluding cargo operations which must, by their nature function only at night) which arrive

and depart at San Antonio between the hours of 10:00 p.m. - 7 a.m. and operate the noisier Stage 2 aircraft.
This surcharge would be equal to and earmarked exclusively for use by the City as matching Federal funds for the purpose of (a) soundproofing public buildings which will remain within the 65 Ldn or greater under the 1993 projected noise contour (utilizing the proposed operational abatement and mitigation measure) and (b) the acquisition of incompatible land uses within the 75 Ldn for the same 1993 operational condition.

The negative aspect of this alternative is that airlines may defer the introduction of new service at San Antonio if their available equipment and intended schedule would result in the additional landing fee charges. The current agreement with the airline operators at San Antonio International Airport does not allow for any type of surcharge. This alternative is not being considered for implementation at this time.

Noise Contour Validation

A computer model was used to determine noise exposure related to aircraft operations at San Antonio International Airport. The data and results were validated through a two-week noise monitoring program conducted by a local consultant.

To attempt to measure prevailing noise levels directly would require months of measurements at numerous noise monitor sites in ever-changing conditions. This would be an impractical, more expensive, and potentially less accurate method of determination when attempting to deal with noise issues which are in need of immediate attention. However, periodic short-term monitoring in especially sensitive areas can help validate the computer model results. Similarly, such monitoring in the future can help assure that changes made as a result of implementation of this plan are indeed producing beneficial results.

Noise Contour Validation in conjunction with the Noise Monitoring Alternative is recommended to be carried forward into the implementation plan.

Noise Complaint Monitoring Program

Complaints about the levels of aircraft noise have been made by persons and community groups in neighborhoods near the airport. By monitoring noise complaints on a continuous basis, the airport could sort complaints by neighborhood, zip code, census tract, source of complaints, address, activity disturbed, hour of day, day of week, day of month, month of year, and complainant's name. Investigations into complaints may show various reasons for a complaint such as a lack of compliance to standard takeoff profiles by airline operators, failures of airline operators to follow standard arrival/departure routes, weather conditions on a specific day, and so on. Periodic monitoring of complaints does not produce a statistically

valid sample to evaluate the success or failure of any noise abatement policy or procedure. Data based on partial or incomplete noise complaint records could not be used to justify any recommended changes.

This alternative of a complete and continuous system for recording noise complaints is recommended to be carried forward into the implementation plan.

Greater Percent of Stage 3 Aircraft

Many airlines are beginning to embark on a retirement program of their older aircraft. An analysis was done to show the results of enacting a policy to promote a more rapid increase in the number of Stage 3 aircraft operating at San Antonio International Airport. The 1993 Baseline Case assumed a 43 percent use of Stage 3 aircraft at the airport. This alternative increased that percentage to 60 percent. The INM was used to model this alternative and its results are presented in Section 5-4.

The City of San Antonio has passed a resolution (#87-58-89), "Supporting Federal Aviation Regulation Part 36", which encourages the rapid transition to Stage 3 aircraft. Each year the airlines report to the airport their achievements of replacing Stage 2 aircraft with Stage 3 noise qualified aircraft (correspondence is included in the appendix). This alternative is considered to be beneficial in reducing noise at San Antonio International Airport, and is recommended for continued consideration.

Comprehensive Land Use Planning And Zoning

This will consider such actions as: (a) modifying the comprehensive land use plan in the vicinity of the airport to take into account both the present and expected future levels of noise exposure, (b) rezoning vacant areas identified in the land use plan to uses compatible with the level of noise exposure, and (c) developing a zoning for special acoustical treatment standards for construction of normally incompatible uses within the noise impact areas.

The alternative would require a complete inventory of all vacant properties and incompatible land uses within the noise impact areas and an individual evaluation of each for potential rezoning of vacant properties. Where good land use planning practices would preclude rezoning to a normally compatible use, special zoning would enable the property owner to have access to funding assistance in order to carry out construction with special acoustical treatment in order to mitigate the intrusion of aircraft noise into the structure. This alternative is recommended to be carried forward into an implementation program.

Acoustical Treatment

This alternative would provide for a funding program to finance acoustical treatment in all homes and public buildings within the 65 and 70 Ldn as anticipated in 1993 with the recommended operational alternatives implemented. A voluntary acoustical insulation and avigation easement program for residential properties within the 65 Ldn and 70 Ldn contours will be implemented. This program will also be available to residential property owners within the 75 Ldn contour who elect not to participate in the Purchase Assurance Program (see page 79) but wish to participate in the voluntary acoustical insulation and avigation easement program. Homeowners who volunteer to have their homes acoustically treated, will be encouraged to give an avigation easement to the city.

According to the current Airport Improvement Program (AIP) handbook, when evaluating a noise attenuation project, several points need to be considered. The structure must be totally within a 65 or 70 (Ldn) contour. Normally, unless extenuating circumstances dictate, noise attenuation should not be considered for structures within a 75 Ldn or greater noise contour since acquisition or purchase is preferred.

Many methods of acoustical treatment are available including, (1) sealing or weather-stripping windows, doors, vents, and external openings; (2) replacing hollow-core doors with solid doors, (3) install acoustically treated ceiling panels, wall panels, and double-glazed windows; (4) eliminating windows; and (5) insulating entryways, attics and crawl spaces. Ventilating systems are required where windows are sealed. The selection of acoustical treatment to buildings should be made on a case by case basis. The City should establish two pilot programs, one for homeowners, one for sensitive land uses, to determine the best way to administer the Acoustical Treatment Program and to test alternative acoustical insulation techniques.

This alternative is recommended to be carried forward into the implementation program in conjunction with Avigation Noise Easements and the Purchase Assurance Program.

Avigation Noise Easements

The FAA recommends and encourages airport sponsors to obtain an avigation easement from a property owner involved in an Acoustical Treatment Program.

An avigation easement is a type of remedy based on less-than-fee purchase. An easement may grant an airport sponsor the right to conduct aircraft operations over the property, which would include those that might cause noise, vibrations, and other effects. Avigation easements can be acquired through a negotiation purchase process

or condemnation. These easements are permanent, enforceable through civil courts, and the title is held until it is sold or released.

This alternative is recommended to be implemented in conjunction with the Acoustical Treatment Alternative and Purchase Assurance Program.

Disclosure Ordinances

The purpose of Disclosure Ordinances or truth-in-sales ordinances, is to require that the prospective buyer of residential property or an existing building be made fully aware of the expected sound levels at the location and any locally adopted requirements for sound insulation. This will only be effective if the community enforces it and penalizes for noncompliance. Disclosure Ordinances do not provide noise relief, however, residents moving into the area should be made aware of the existing and projected noise exposure.

This alternative may serve to reduce the number of new property owners who are sensitive to noise, in the noise exposure areas. The legal implication will also require a special review by the City Legal Department, however, it is recommended for implementation.

Purchase Assurance Program

While acquisition of property falling within the 75 Ldn of the 1993 Noise Exposure Map would be enormously expensive, a property Purchase Assurance Program could be considered if sufficient Federal Funds were available for such purposes (assuming the other recommended Plan elements are implemented). Purchase would be in a "willing-buyer, willing-seller" arrangement for property owners who feel the noise conditions are such that they wish to sell their property to the City.

This alternative offers a real method of reducing the amount of incompatible land use in the noise exposure areas. However, for San Antonio, exercising this alternative as the sole solution would be prohibitively expensive. An example, the 1993 Base Case indicates that a total of 960 dwelling units are shown to exist within the 75 Ldn. An estimated total cost for acquisition of these would be approximately $1.4 billion. In comparison, Alternatives VI and or VII (as presented in Section 5-4), would result in a much smaller noise contour with significantly fewer residential dwelling units impacted in the 75 Ldn.

This alternative is recommended to be further studied and implemented in conjunction with the Acoustical Treatment Program and Avigation Easements.

Purchase of all incompatible land uses and converting to compatible use is a means of achieving land use compatibility in airport environs. These lands can then be leased

for airport-compatible land uses, acoustically treated and resold with avigation easements and deed restrictions that permit only specific compatible land uses, retained by the airport and maintained as permanent open space, or used by other governmental agencies for noise-tolerant public purposes. Land acquisition was not deemed as appropriate alternative for San Antonio International Airport.

Noise Abatement Departure Profile: Thrust Cut-back

The FAA believes that the use of a noise abatement departure profile, which incorporates thrust reduction and airplane configuration management, will provide benefits to noise sensitive areas around an airport. Advisory Circular 91-53A addresses such a departure profile and intends it to be applied by the airport operator to fulfill its "local option" obligations in an aircraft noise abatement program under the Aviation Noise Abatement Policy. It must be understood that a "thrust cut-back" take-off procedure is more beneficial with the noisier, Stage 2 aircraft. Since 78 percent of the current flights at San Antonio are by Stage 2 aircraft, a thrust cut-back alternative could be considered for these air carrier flights. As the Stage 2 aircraft are replaced by Stage 3 in the coming years, only 50 to 60 percent of the total flights would be considered for thrust cutback by the year 1993.

While the goal might be for all departures by Stage 2 aircraft to follow the modified thrust cut-back procedure it is recognized that not all can. For the purposes of this evaluation it was assumed that approximately 50 percent of the departures would be able to use it at San Antonio International. The 50 percent factor was assumed because of the heavy concentration of air facilities in the San Antonio area and particularly the close proximity of Randolph AFB. Under these conditions, the use of a thrust cut-back procedure which results in a lower climb profile (particularly for heavily loaded aircraft), reduces the margins of safety.

The use of thrust reduction procedures at San Antonio International can be expected to have beneficial noise reduction effects on areas nearest the airport when aircraft performance and air traffic control requirements permit. Even greater benefits will be realized as greater numbers of Stage 3 aircraft continue to serve San Antonio International in the future.

It is also recommended that general aviation and corporate aircraft utilize a standard thrust reduction noise abatement departure procedure as well as the air carriers.

Subsequent to further study, (see Section 5-4), this alternative is recommended for implementation.

Pilot Advisory Program

In conjunction with the thrust cut-back alternative, it is recommended that signs be placed at all runway ends to remind all pilots to exercise noise abatement procedures whenever possible. The airport should publish a notice of the City's noise abatement program and distribute it to all general aviation, corporate, and commercial pilots using the airport.

Noise Abatement Officer

It is recommended that the City create the position of Noise Abatement Officer to coordinate the implementation of the Noise Compatibility Program.

5-1.2 Alternatives Under The Authority Of The FAA

Flight Pattern Changes

Effective noise abatement procedures require efficient airspace management. Without good air traffic control procedures, utilized in a well-developed airspace environment, implementation of a noise abatement program could not be accomplished. Critical to the assessment of solutions to noise concerns at San Antonio International Airport is the potential for conflicts with air traffic from local military bases.

San Antonio International Airport is located in a complex system of aircraft flight paths and special use airspace due to the presence of Randolph AFB and Kelly AFB. The present parallel runway configuration at San Antonio International Airport allows for safe separation and operation of the air carrier activity from the general aviation activity.

In conjunction with San Antonio Air Traffic Control, flight track recording data was reviewed from the Automated Radar Terminal System (ARTS) and confirmed that in order to maintain safe and standardized operating procedures that take into account aircraft performance and the human factors involved, existing flight paths should remain as they are for future conditions at San Antonio International Airport. Any changes in runway configuration should also be eliminated as a possible noise control action, since such changes would create airspace conflicts with Kelly AFB and Randolph AFB. This alternative has been eliminated from further consideration.

Equalizing, Increasing, or Rotating Use of Runways (Increase Use of Runway 3-21)

This alternative was evaluated using the Integrated Noise Model to generate

comparative noise contours for San Antonio International based upon the projected 1993 levels of activity. The alternative consisted of shifting commercial air traffic from the predominant runway under current normal use (Runway 12R-30L) to Runway 3-21.

Use of Runway 3-21 by commercial aircraft is approximately 8 percent and this alternative considered increasing that usage to 20 percent and removing a similar amount of commercial traffic on Runway 12R-30L. General aviation activity on Runway 3-21 was increased from 8 to 15 percent.
The comparative results of this alternative are presented in Section 5-4 as Alternative VI and show a significant increase in noise contour area as well as the number of dwelling units impacted within the 65 Ldn contour. It was also noted that such an alternative would, in addition to increasing the total area impacted, provide minimal relief to the areas under the flight tracks for Runway 12R-30L and would more than double the area impacted off Runway 3-21, (thereby exposing many dwelling units and other uses to that level of noise for the first time). Because this approach appears to result in an increase in noise as opposed to any mitigation or abatement it was eliminated from further consideration.

Preferential Runway Use Procedures

This alternative considered the possibility of providing a preferred runway use program during select periods. Specifically, the potential for assigning more traffic to Runway 3-21 during periods when reduced activity at Randolph Air Force Base would make such reassignment feasible (notably weekends or nights). This alternative was viewed to be similar in nature to the preceding alternative in which case additional traffic was assigned to Runway 3-21 and reduced on Runway 12R-30L. Twelve percent of the commercial flights and 7 percent of the general aviation flights were shifted from Runway 12R-30L to Runway 3-21.

As noted in the previous alternative analysis, the shift of traffic to Runway 3-21 results in a larger total area impacted for the 65 Ldn noise contour as well as increases in dwelling units and population impacted in the exposure areas of 65 Ldn and above. For these reasons this alternative was not considered beneficial for aircraft noise mitigation and abatement and has been deleted from further consideration in this study.

Section 5-4: ANALYSIS OF ALTERNATIVES REQUIRING INM USAGE

As discussed earlier, seven noise abatement alternatives were investigated through the use of the FAA's Integrated Noise Model (INM). The results each of the following alternatives were analyzed to show their applicability at San Antonio International Airport.

Extension of Runways and Displacement of Threshold:

I. Extension of Runway 3-21 (existing utilization)

II. Extension of Runway 3-21 (with increased utilization)

III. Extension of Runway 12L-30R (Restricted Use)

IV. Extension of Runway 12L-3OR (Unrestricted Use)

V. Thrust Cut-Back Profile

VI. Increase Use of Runway 3-21

VII. Greater percent of Stage 3 Aircraft

The operational and/or physical changes assumed for each alternative are briefly described below.

5-4.1 Description of Alternatives

I. Extension of Runway 3-21 (with no change in utilization).

This alternative maintained the current runway utilization but assumed a 1,000 foot extension of Runway 3-21 to the northeast and a 1,000 foot displacement of the southwest threshold.

II. Extension of Runway 3-21 (with increased utilization).

This alternative assumed an increase in use of Runway 3-21 and a corresponding decrease in Runway 12R-30L utilization; in conjunction with the 1,000 foot extension to the northeast and a 1,000 foot displaced threshold on the southwest end. The shift in runway utilization amounted to 20% of the air carrier flights and 15% of the general aviation flights.

III. Extension of Runway 12L-30R (Restricted Use)

This alternative assumed a 1,500 foot extension to Runway 12L-30R for use as an

air carrier runway. This will increase the operational flexibility of the parallel runways and thus, one third of the total air carrier operations on Runway 12R-30L were shifted to Runway 12L-30R. The current restriction which permits only turbo-jet landings on Runway 12L and turbo-jet takeoffs on Runway 30R was assumed to be in effect in this alternative.

IV. Extension of Runway 12L-30R (Unrestricted Use)

This alternative assumed the same physical and operational alterations as the previous alternative, but the policy regarding turbo-jet operations was lifted thus making the runway available for all operations.

V. Thrust Cut-Back Profile

For this alternative, a thrust cut-back procedure was developed which assumed a modified aircraft climb profile. The normal procedure used in the INM assumes the pilot reduces thrust at 1,000 feet above runway elevation, retracts flaps, and accelerates to the zero flap safe maneuvering speed (Vzf). This climb rate is maintained until the aircraft reaches 3,000 feet above runway elevation at which time normal climb thrust is applied.

A procedure used for this alternative was developed using the INM thrust cut-back profile, with alternative segments applied to the section of the profile between 1,000 and 3,000 feet in elevation. The modification calls for the initiation of flap retraction at 1,000 feet combined with acceleration to the "Zero Flap Safe Maneuvering Speed" (as specified in the INM database). Also, the thrust setting is reduced to the "Thrust for Engine Out Level Flight" (as specified in the INM database). The profile gradient that results from this modification is consistent with the "Gradient At FAR Part 36 Cut-back" (as specified in the INM data base).

The procedure attempted to measure the impacts which reflect the absolute maximum amount of thrust reduction that could be introduced and still remain within acceptable FAA standards.

The INM departure profiles (standard and modified) for the DC-9 and B-727 were plotted along with the actual departure profiles of aircraft as recorded by the air traffic control radar facility. The profiles from six departures, chosen at random, along with the INM profiles are presented in Figure 5-1.

The plot of INM theoretical departure profiles, and the actual profiles, help to illustrate the unique air traffic control limitation at San Antonio International. The majority of aircraft departing on Runway 12R must reach an altitude of 3,000 feet, within a seven to eight mile down range distance, in order to maintain safe separation from Randolph AFB air traffic. Figure 5-1 illustrates that not all

departures can follow the modified thrust cut-back procedure and meet this requirement. Consequently, this alternative assumed for evaluation purposes, that the modified departure procedure could be followed approximately 50 percent of the time. The thrust cut-back profile was applied to 50 percent of the Stage 2 aircraft operations. These procedures would not apply to Stage 3 aircraft. Clearance was obtained from the Washington FAA Environmental Office to use this assumption in the INM.

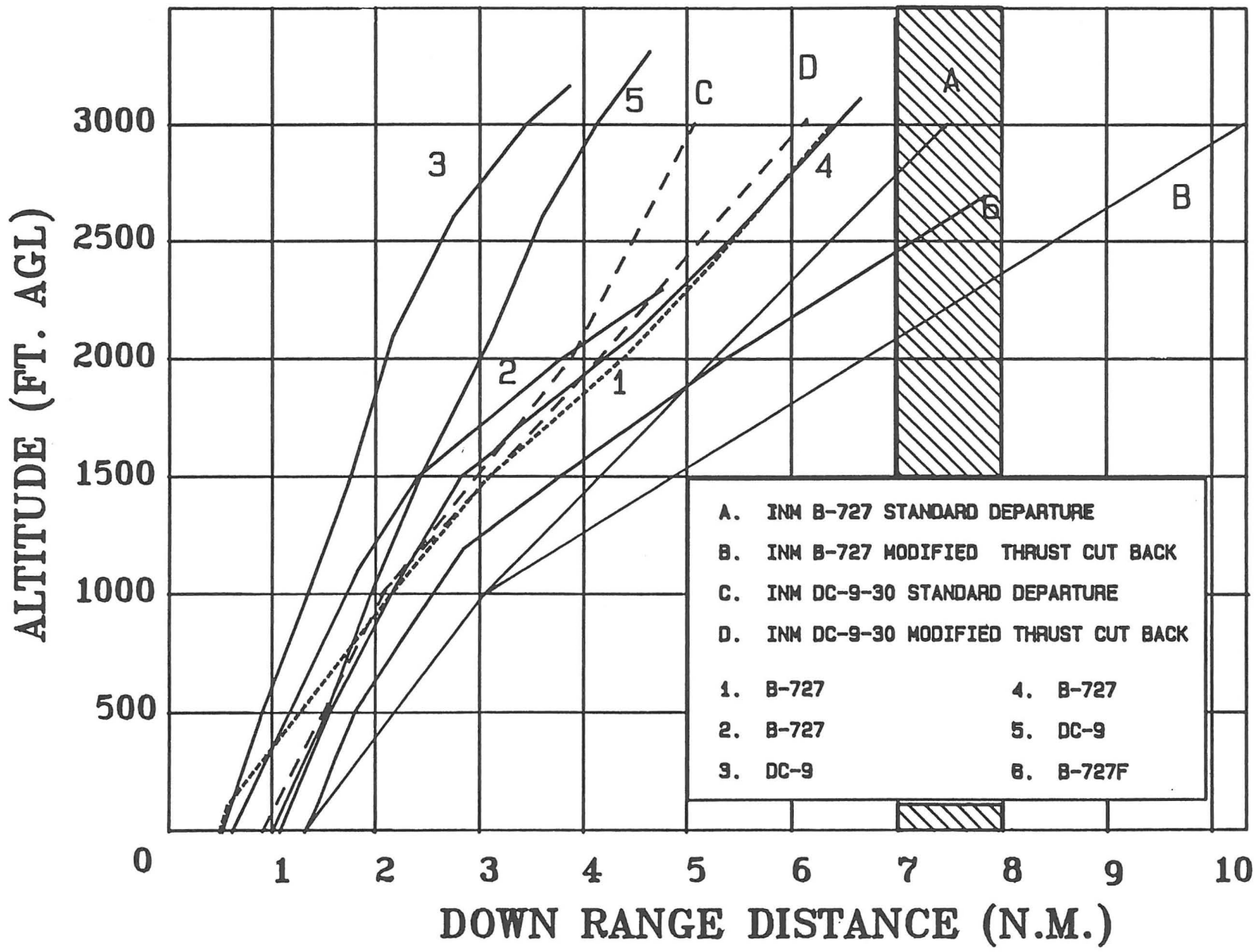

ALTITUDE (FT. AGL)
3000
2500
2000
1500
1000
500
0
1
2
3
4
5
6
7
8
9
10
DOWN RANGE DISTANCE (N.M.)
A
B
C
D
1
2
3
4
5
6
A. INM B-727 STANDARD DEPARTURE
B. INM B-727 MODIFIED THRUST CUT BACK
C. INM DC-9-30 STANDARD DEPARTURE
D. INM DC-9-30 MODIFIED THRUST CUT BACK
1. B-727
2. B-727
3. DC-9
4. B-727
5. DC-9
6. B-727F

Figure 5-1

The resulting contours reflected significant, but unrealistic, benefits attributable to thrust reduction. Unrealistic because it would be impractical to attempt to document that all Stage 2 departures would, or could, reduce power to such minimum levels and still comply with air traffic altitude requirements, particularly for Runway 12R departures.

Following the analysis of this special thrust cut-back procedure, a meeting of the technical committee (consisting of members of the Air Force, FAA Air Traffic Control, Air Transport Association, and others) discussed this concept at length. They concluded that given the airspace condition at San Antonio, and the requirements of the procedure (causing the airline pilots to operate a non standard departure), that it would not be possible to implement this alternative as stated.

However, all agreed that the "Standard Thrust Cut-Back" departure already approved by FAA and endorsed by ATA and most airlines was important to continue in use at San Antonio. This procedure is already flown by most pilots departing San Antonio and the benefits are already reflected in the "Base Case" analysis. Therefore this plan need only note the importance of encouraging all pilots to use that procedure and for the adherence to that procedure to be confirmed from time to time through the ARTS data plots.

This "Standard Thrust Cut-Back" procedure endorsement is recommended to replace the more severe thrust cut-back procedure analyzed in Section 5-4, and is recommended for implementation in the Noise Compatibility Program.

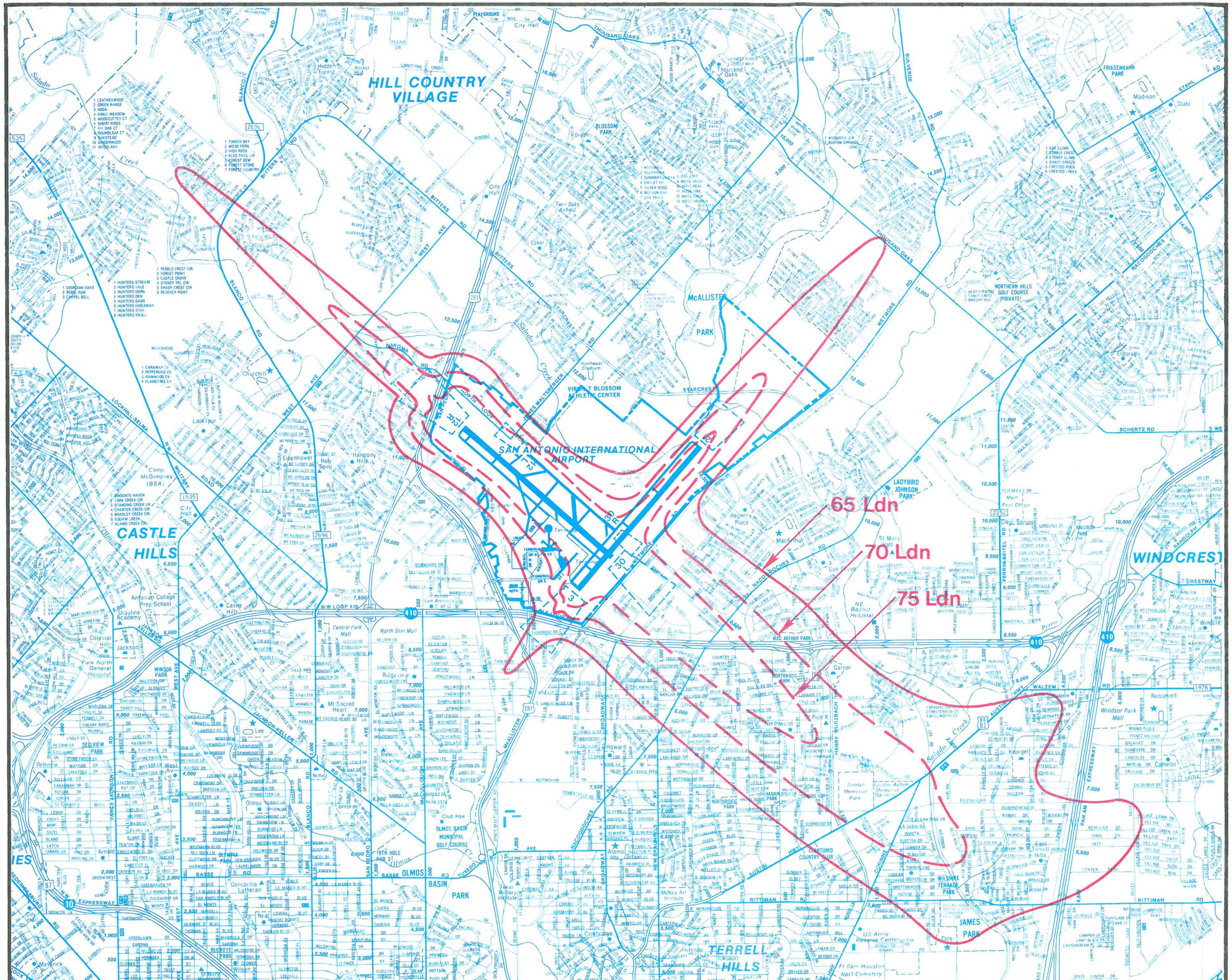
VI. Increase Use of Runway 3-21

This alternative assumed that air traffic control procedures would permit an increase in the use of Runway 3-21. Thus, 12 percent of the air carrier and commuter activity was shifted from Runway 12R-3OL to Runway 3-21. This increased total air carrier and commuter activity on Runway 3-21 from 8 percent currently to 20 percent. General aviation activity on Runway 3-21 was increased from 8 percent to 15 percent. This alternative introduces substantial noise impacts to previously unimpacted areas, and can be justified only if it would result in a net decrease in number of persons impacted.

As was stated earlier, the INM was used to develop Ldn noise contours for specific alternatives. For comparison purposes, the following eight figures present the 1993 Baseline Case and Alternatives VII. Each figure shows the noise contours of the alternatives analyzed through the use of the INM. The impact of aircraft noise for each of these alternatives is summarized in Table 5-1.

VII. Greater Percent of Stage 3 Aircraft

This assumes a policy to promote a more rapid increase in the number of Stage 3 aircraft operating at the airport. The baseline case assumed that San Antonio would parallel the national trend which projected an increase from 22 percent Stage 3 aircraft in 1988 to 43 percent Stage 3 aircraft in 1993. This alternative used as a sensitivity check a 1993 mix of aircraft, of which the Stage 3 aircraft equaled 60 percent.



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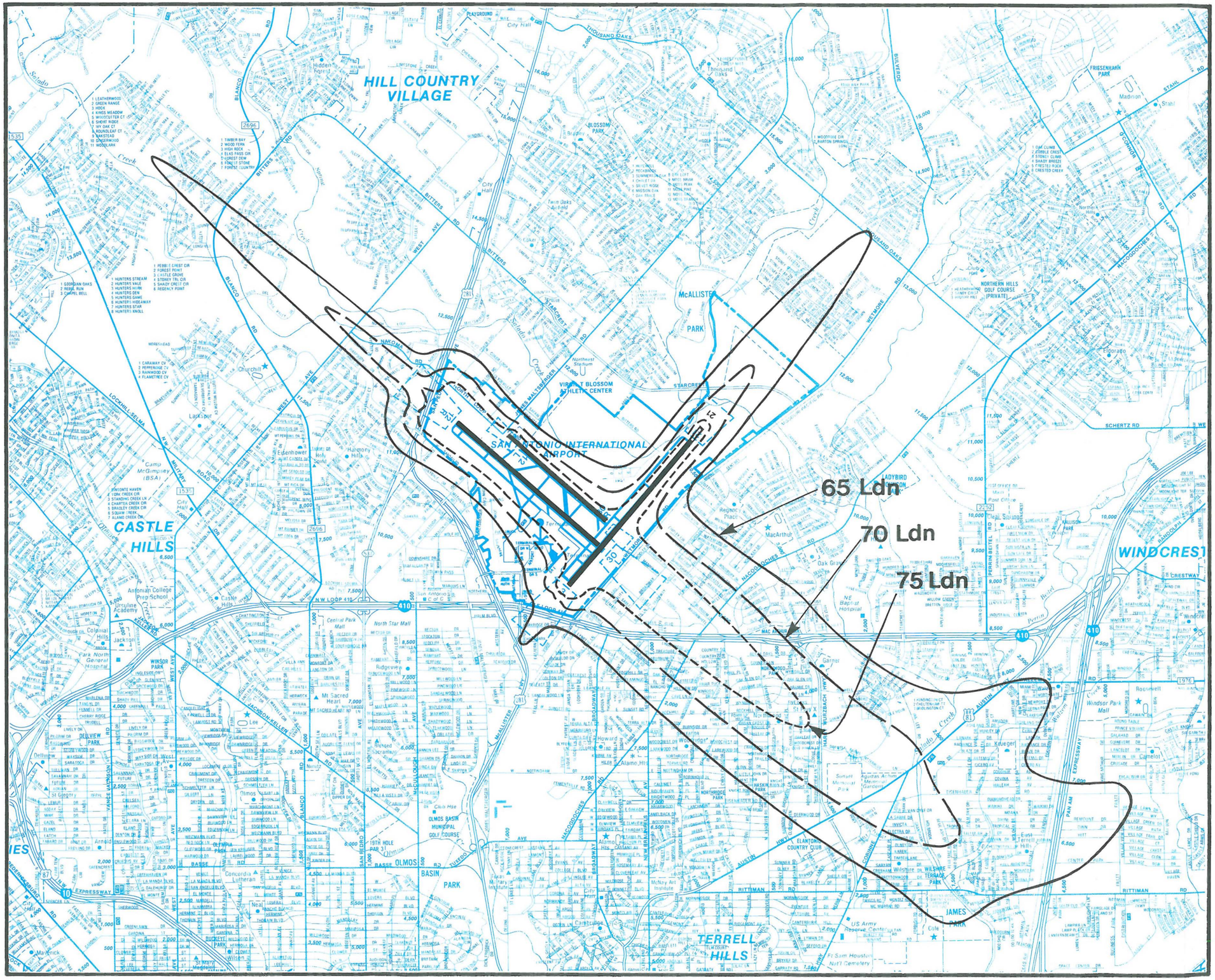
Scale 1"= 4,251'

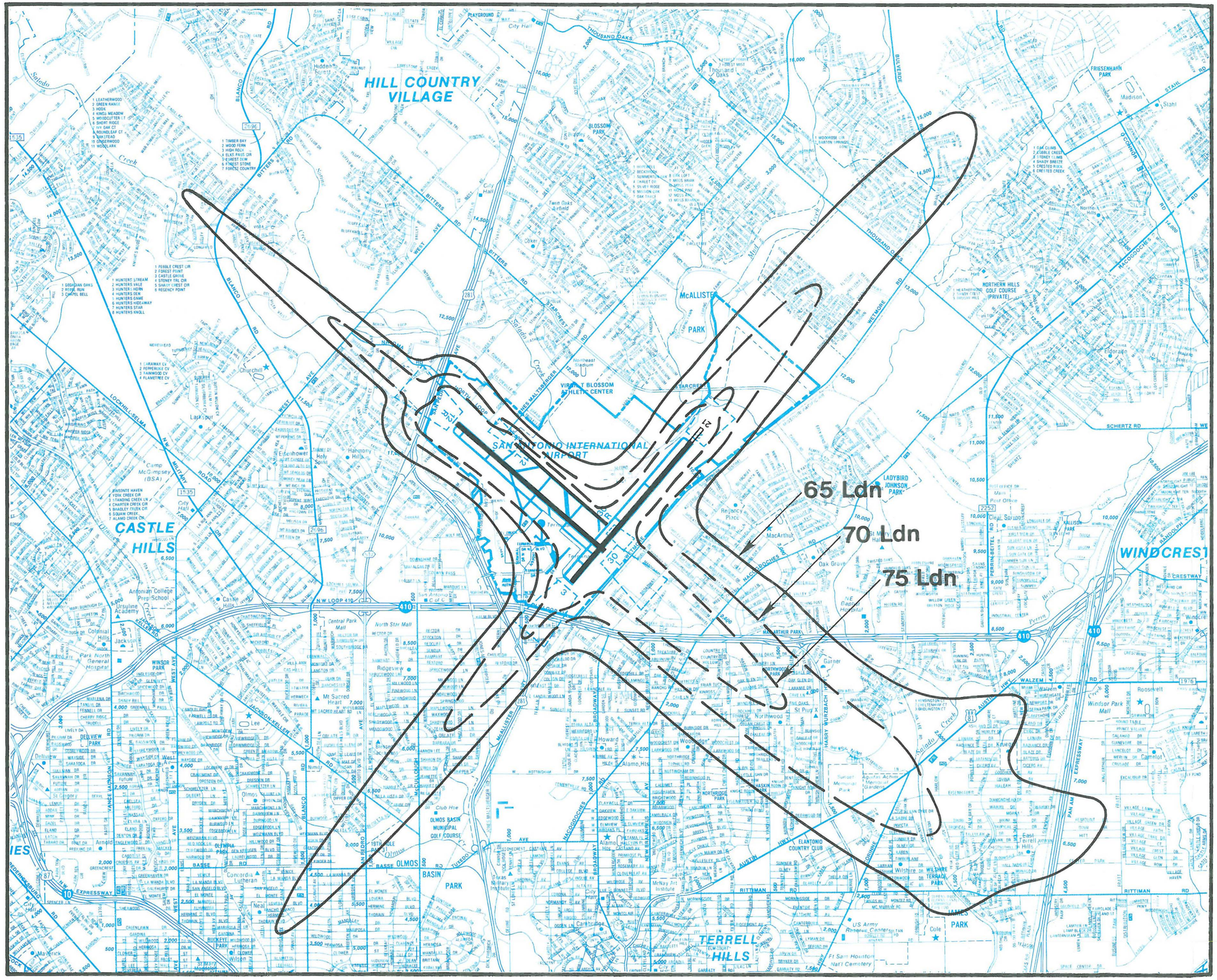
SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Future Noise Exposure Map

1993 NOISE CONTOURS


HILL COUNTRY VILLAGE
CASTLE HILLS
TERRELL HILLS
WINDCREST
SAN ANTONIO INTERNATIONAL AIRPORT
McALLISTER PARK
65 Ldn
70 Ldn
75 Ldn
N
Scale
1"= 4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
ALTERNATIVE I
EXTENSION OF RUNWAY 3–21
(EXISTING UTILIZATION)



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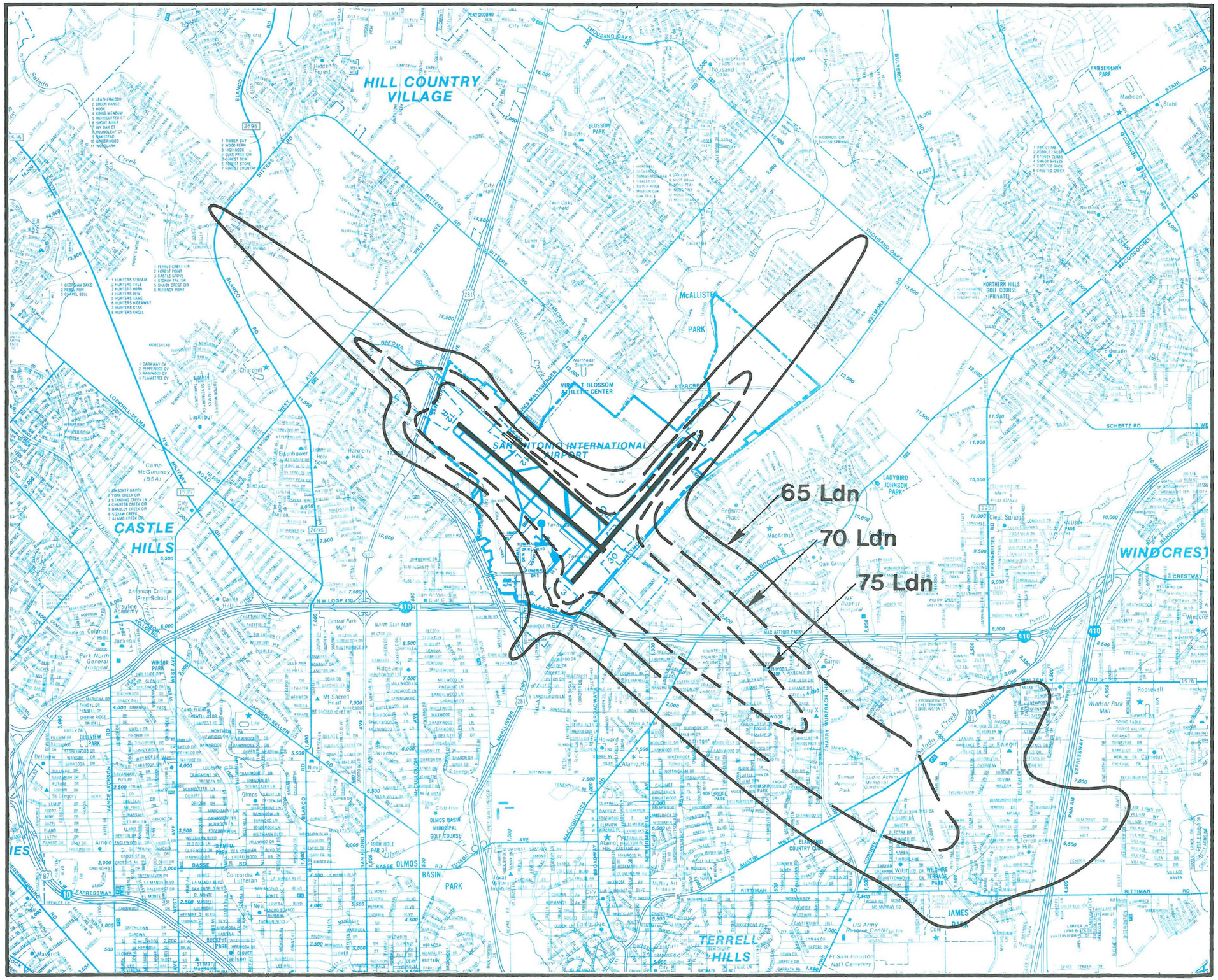
ALTERNATIVE II EXTENSION OF RUNWAY 3–21 (INCREASED UTILIZATION)



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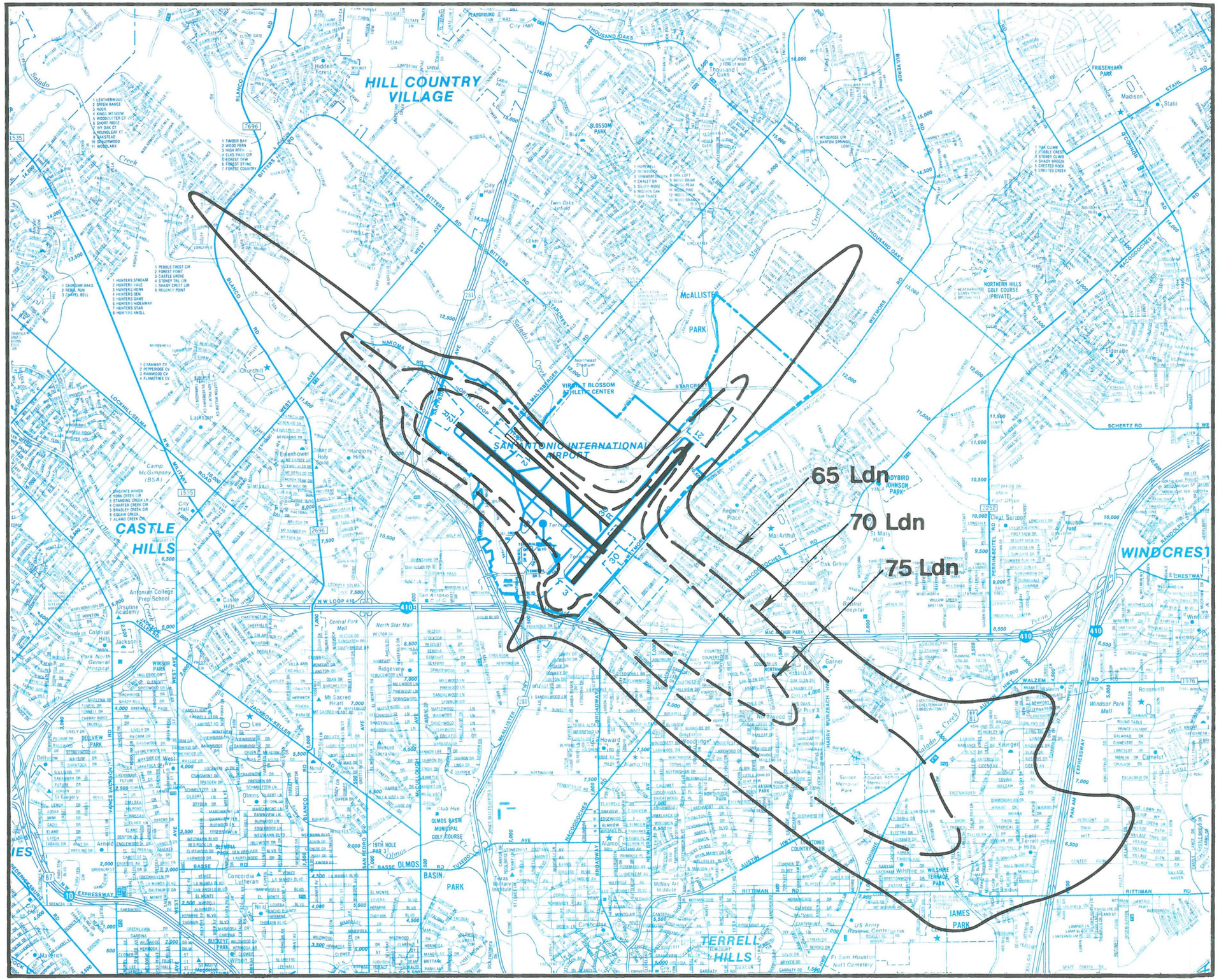
ALTERNATIVE III EXTENSION OF RUNWAY 12L–30R (RESTRICTED USE)


HILL COUNTRY VILLAGE
SAN ANTONIO INTERNATIONAL AIRPORT
65 Ldn
70 Ldn
75 Ldn
CASTLE HILLS
TERRELL HILLS
WINDCREST
McALLISTER PARK
BLOSSOM PARK
LADYBIRD JOHNSON PARK
JAMES PARK
OLMOS BASIN PARK
FRIESENHAHN PARK
NORTHERN HILLS GOLF COURSE (PRIVATE)
OLMOS BASIN MUNICIPAL GOLF COURSE
Camp McGimpsey (BSA)
Central Park Mall
North Star Mall
Windsor Park Mall
Mt Sacred Heart
Antonian College Prep School
Ursuline Academy
Northeast Stadium
VIRGINIA BLOSSOM ATHLETIC CENTER
Brooke Hospital
Methodist Hospital
Texas Military Institute
US Army Reserve Center
Ft Sam Houston Nat'l Cemetery
Thousand Oaks
Bitters Rd
Nakoma
Starcrest
Wetmore Rd
Schertz Rd
Walzem
Rittiman Rd
Basse Rd
Jackson-Keller
Nw Loop 410
Blanco Rd
Broadway
Harry Wurzbach Hwy
Pan Am Expressway
Lockhill-Selma
Wurzbach Pkwy
Salado Creek
Mud Creek
Olmos Creek
Leon Creek
N
Scale
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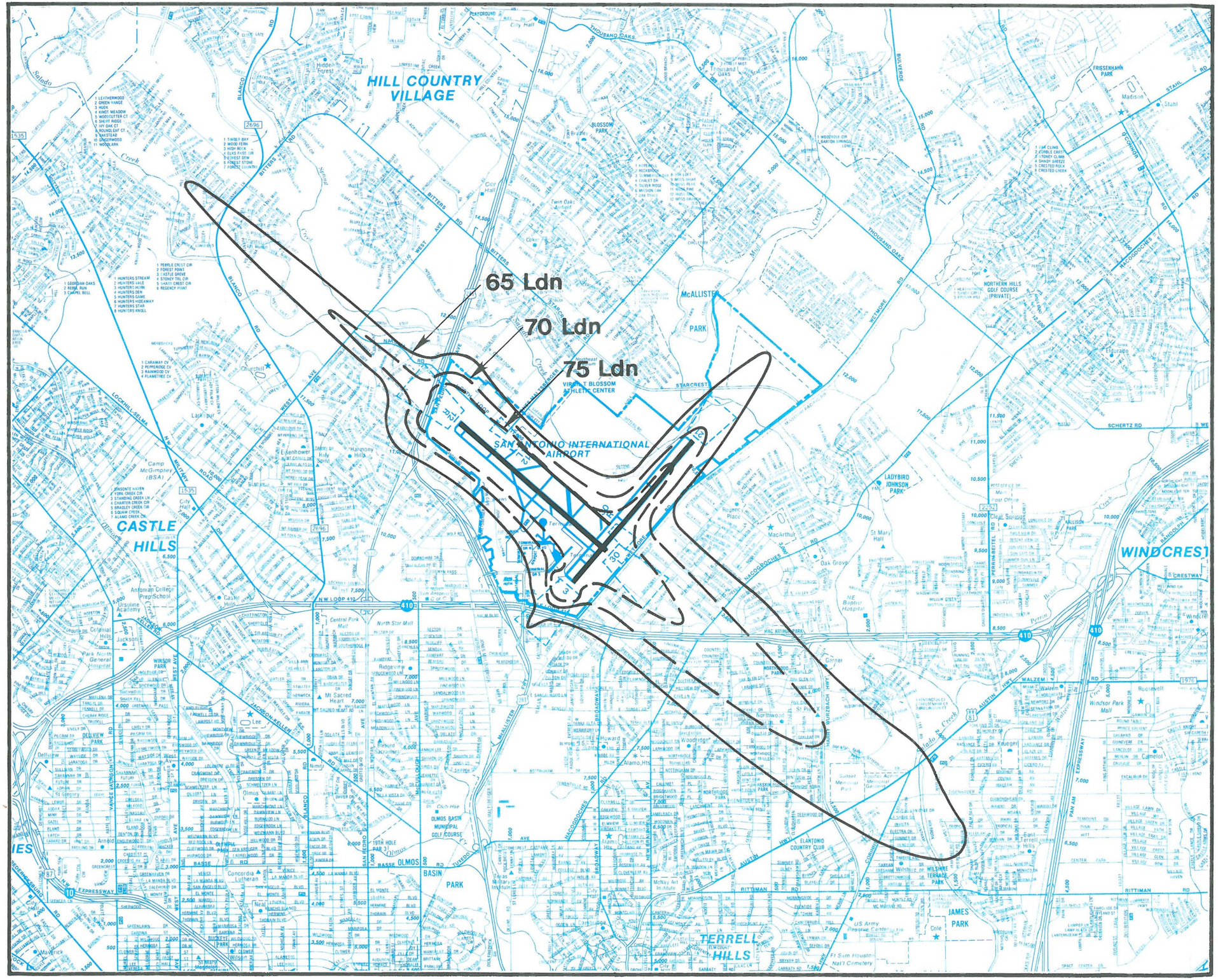
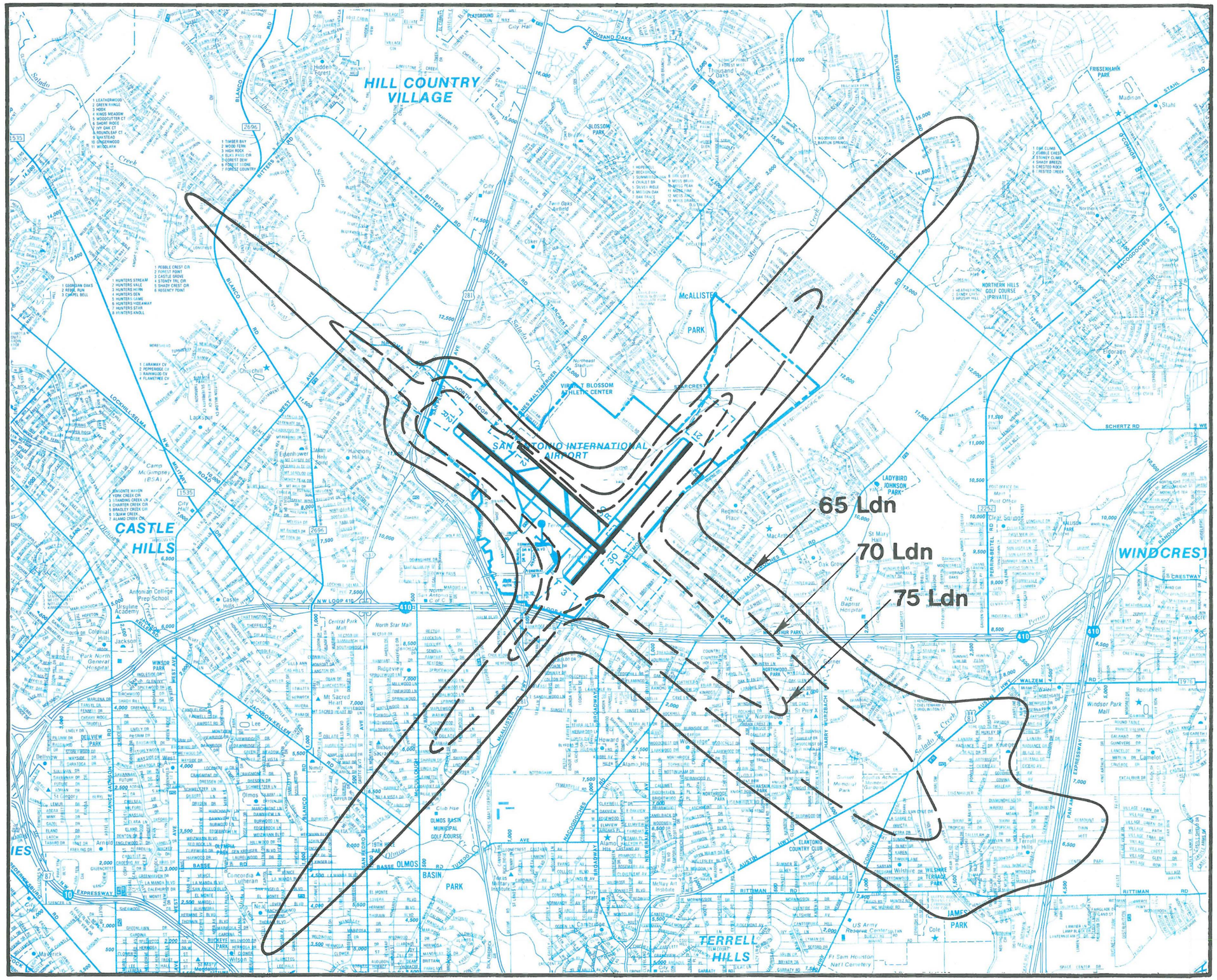
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
ALTERNATIVE IV EXTENSION OF RUNWAY 12L–30R (UNRESTRICTED USE)



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

ALTERNATIVE V THRUST CUT-BACK PROFILE


HILL COUNTRY VILLAGE
CASTLE HILLS
TERRELL HILLS
WINDCREST
McALLISTER PARK
SAN ANTONIO INTERNATIONAL AIRPORT
65 Ldn
70 Ldn
75 Ldn
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Scale
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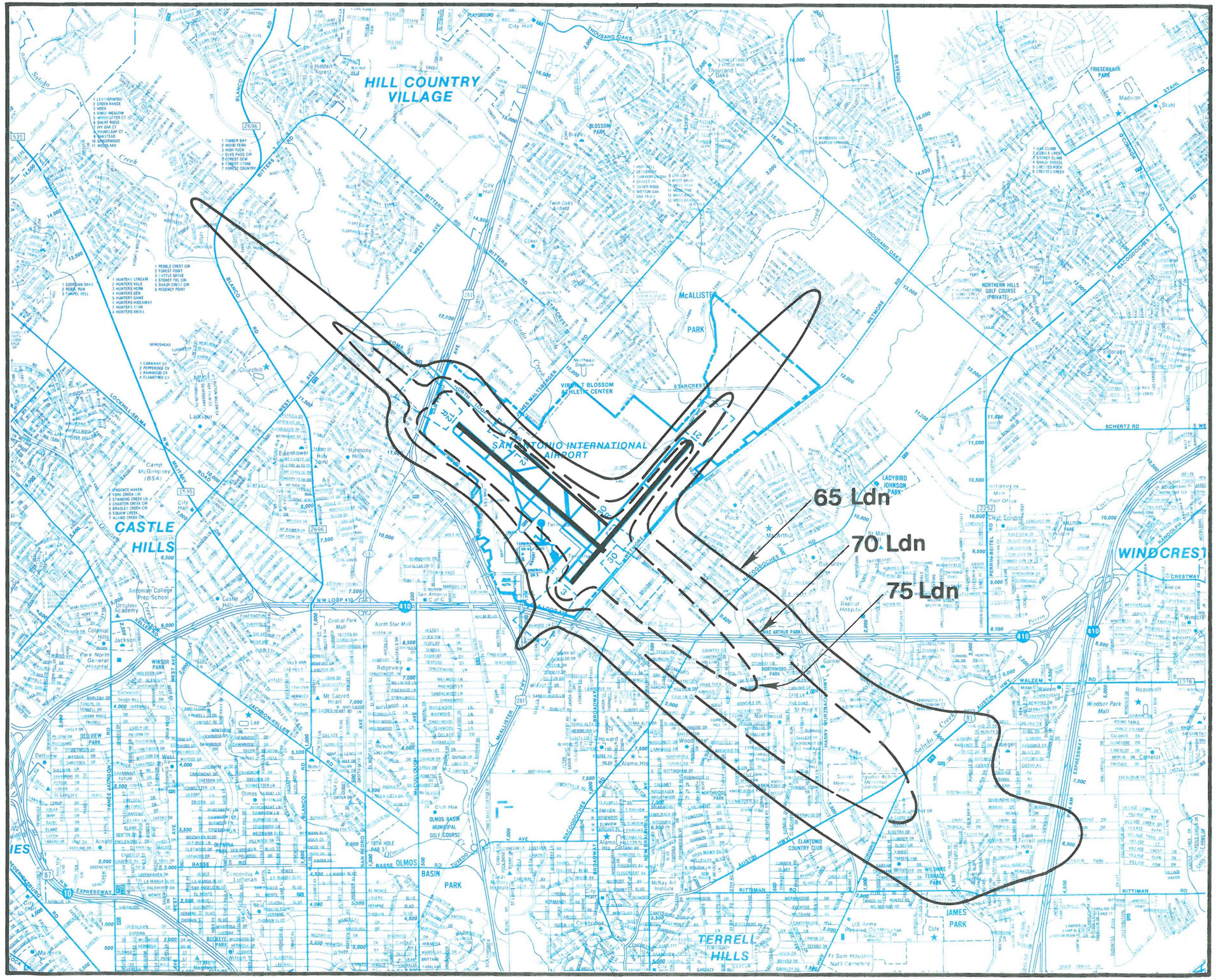
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
ALTERNATIVE VI
INCREASE USE OF RUNWAY 3-21


HILL COUNTRY VILLAGE
CASTLE HILLS
TERRELL HILLS
WINDCREST
SAN ANTONIO INTERNATIONAL AIRPORT
McALLISTER PARK
65 Ldn
70 Ldn
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Scale
1"= 4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
ALTERNATIVE VII
GREATER PERCENT OF STAGE 3 AIRCRAFT

Table 5-1

INTEGRATED NOISE MODEL ANALYSIS OF SPECIFIC ALTERNATIVES

	Ldn Contour Surface Area (Square Miles)		
	65-70 Ldn	70-75 Ldn	75 + Ldn
Alternatives Analyzed 1993 Baseline Case:	9.9	4.3	1.7
Alternative I Extension of Runway 3-21 (existing utilization)	9.9	4.3	1.8
Alternative II Extension of Runway 3-21 (increased utilization)	11.9	4.8	1.8
Alternative III Extension of Runway 12L-30R (restricted use)	9.9	4.2	1.8
Alternative IV Extension of Runway 12L-30R (unrestricted use)	10.1	4.5	1.9
Alternative V Thrust Cut-Back Profile	5.9	2.6	1.1
Alternative VI Increase Use of Runway 3-21:	12.0	4.8	1.8
Alternative VII Greater Percent of Stage 3 Aircraft	8.0	3.4	1.4

In comparing the area impacts for each of these alternatives against the baseline case, it can be noted that:

- Implementing Alternative I would not result in any substantial improved change in the contour areas.

- Alternative II would increase the noise impact within the 65-70 Ldn contour. This alternative would impact the areas to the northeast of the airport, as well as many residential areas to the southwest of the airport, which are not normally affected by high levels of aircraft noise exposure.

- Alternative III does not improve the current noise levels in the 65-70 Ldn, but does improve the 70-75 Ldn by 0.1 square mile. However, the only improvement is located off Runway 30L to the northwest.

- Implementing Alternative IV would increase the noise impact over the present situation in all three Ldn contour levels.

- Alternatives V and VII reduce the noise impact within all contours, would be considered the most effective alternatives in noise control to this point.

- Alternative VI shows an increase in noise impact for all Ldn contour levels. However, this alternative was further analyzed to determine if the actual population impacts would be as great as the population impacts of the 1993 Base Case as described below.

Alternatives V, VI and VII were further evaluated in order to assess the impact of aircraft generated noise on areas surrounding San Antonio International Airport. Detailed measurements of all areas within the 65 Ldn and above, but not within the airport boundary were computed. The results of the measurements of areas by noise level, type of land use, and the computations of dwelling units and population by census tract are shown in Tables 5-3 through 5-5 (A comparison of impacts is presented in Table 5-2).

In comparing the area and population impacts for each of these alternatives with the 1993 Base Case, it can be shown that:

- The effect of Alternative V (thrust cut-back profile) is substantial within the 65-70 Ldn and over 75 Ldn areas. There is no increase or decrease in population impact within the 70-75 Ldn area. Of the estimated population in the 65 Ldn + area, 66 percent would be within the 65-70 Ldn and zero in 75+ Ldn.

- Alternative VI, increasing the use of Runway 3-21, will cause an increase in the total population impacted over the 1993 Base Case, most of which is contained within the 65 Ldn contour. There is however, a reduction on population impacted within the 75+ Ldn.

- Alternative VII, which provides for a greater percentage of Stage 3 aircraft operating at San Antonio International Airport, showed a significant decrease in total population impacted. In this case, 73 percent of the impacted population would be within the 65-70 Ldn, 20 percent within the 70-75 Ldn and 7 percent within the 75+ Ldn area.

Based on the above evaluation a basis for selecting the most effective combination of noise abatement measures and subsequent measures to further mitigate noise impacts within the surrounding communities was determined.

Table 5-2

COMPARISON OF IMPACTS

	1993 Base Case	Alt. V	Alt. VI	Alt. VII
Acres Impacted:				
65-70 Ldn	2,210	1,703	4,029	2,401
70-75 Ldn	844	629	1,435	1,025
70+ Ldn	221	88	398	295
TOTALS:	3,275	2,420	5,862	3,721
Dwelling Units:				
65-70 Ldn	7,460	3,212	9,336	5,044
70-75 Ldn	2,748	1,432	2,792	2,380
75+ Ldn	960	- 0 -	680	480
TOTALS:	11,168	4,644	12,808	7,904
Population				
65-70 Ldn	27,230	11,766	35,320	18,854
70-75 Ldn	6,040	6,040	6,201	5,250
75 + Ldn	3,998	- 0 -	2,789	1,712
TOTALS:	37,268	17,806	44,310	25,816

ALTERNATIVE V: THRUST CUT-BACK PROFILE

****

NOISE IMPACTED RESIDENTIAL AND VACANT LAND BY CENSUS TRACT AND NOISE CONTOUR INTERVAL

(ALL VALUES IN ACRES)

CENSUS TRACT	LDN 65-70: LDR	HDR	VACANT	LDN 70-75: LDR	HDR	VACANT	ABOVE LDN 75 LDR	HDR	VACANT	TOTAL BY CENSUS TRACT
1205.1	37	11	43	0	0	0	0	0	0	91
1205.02	0	0	0	0	0	0	0	0	0	0
1208	383	26	0	205	7	0	0	0	0	621
1209.01	39	22	0	0	0	0	0	0	0	61
1209.02	28	0	174	0	0	0	0	0	0	202
1210	80	0	0	65	14	0	0	0	0	159
1214	0	0	0	0	0	0	0	0	0	0
1207	52	17	0	18	14	0	0	0	0	101
1912	9	0	0	0	0	0	0	0	0	9
1913	4	0	14	0	0	0	0	0	0	18
1914	19	0	196	0	0	0	0	0	0	215
1211.01	0	0	0	0	0	0	0	0	0	0
TOTALS	651	76	427	288	35	0	0	0	0	1,477

IMPACT SUMMARY TABLE:

TOTAL POPULATION LDN 65-70	11,766
TOTAL POPULATION LDN 70-75	6,040
TOTAL POPULATION ABOVE LDN 75	0
TOTAL.....	17,806

CENSUS TRACT	PERSONS PER HOUSEHOLD	LDN 65-70: --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.	LDN 70-75 --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.	LDN 75+ --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.
1205.1	2.63	148	389.24	88	231.44	96	252.48	104	273.52	0	0	0	0
1205.02	2.52	0	0.00	0	0	0	0	0	0	0	0	0	0
1208	2.18	1,532	3339.76	208	453.44	1188	2589.84	136	296.48	0	0	0	0
1209.01	2.1	156	327.60	176	369.6	368	772.8	144	302.4	0	0	0	0
1209.02	1.68	112	188.16	0	0	148	248.64	0	0	0	0	0	0
1210	2.43	320	777.60	0	0	308	748.44	0	0	0	0	0	0
1214	2.91	0	0.00	0	0	0	0	0	0	0	0	0	0
1207	2.17	208	451.36	136	295.12	128	277.76	128	277.76	0	0	0	0
1912	2.45	36	88.20	0	0	0	0	0	0	0	0	0	0
1913	1.81	16	28.96	0	0	0	0	0	0	0	0	0	0
1914	1.85	76	140.60	0	0	0	0	0	0	0	0	0	0
1211.01	2.71	0	0.00	0	0	0	0	0	0	0	0	0	0
TOTALS		2,604	5731.48	608	1349.6	2236	4889.96	512	1150.16	0	0	0	0

ALTERNATIVE VI: INCREASE USE OF RUNWAY 3-21

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NOISE IMPACTED RESIDENTIAL AND VACANT LAND BY CENSUS TRACT AND NOISE CONTOUR INTERVAL

(ALL VALUES IN ACRES)

CENSUS TRACT	LDN 65-70: LDR	HDR	VACANT	LDN 70-75: LDR	HDR	VACANT	ABOVE LDN 75 LDR	HDR	VACANT	TOTAL BY CENSUS TRACT
1205.1	393	30	0	0	0	10	0	0	0	433
1205.02	132	39	35	0	0	15	0	0	0	221
1208	273	44	0	352	23	0	78	5	0	775
1209.01	82	0	0	17	20	0	0	0	0	119
1209.02	134	28	177	19	0	161	0	0	0	519
1210	102	0	0	95	20	0	56	13	0	286
1207	90	5	95	41	0	68	0	0	0	299
1909	320	0	0	39	0	0	0	0	0	359
1910.1	37	0	0	0	0	0	0	0	0	37
1910.2	74	0	0	0	0	0	0	0	0	74
1912	6	0	0	0	0	0	0	0	0	6
1913	7	0	9	0	0	0	0	0	0	16
1914	16	0	197	0	0	0	0	0	0	213
1211.01	376	0	252	9	0	0	0	0	0	637
TOTALS	2,042	146	765	572	63	254	134	18	0	3,994

IMPACT SUMMARY TABLE:

TOTAL POPULATION LDN 65-70	35,320
TOTAL POPULATION LDN 70-75	6,201
TOTAL POPULATION ABOVE LDN 75	2,789
TOTAL.....	44,310

CENSUS TRACT	PERSONS PER HOUSEHOLD	LDN 65-70: --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.	LDN 70-75 --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.	LDN 75+ --LOW DENSITY- D.U.	POP.	--HIGH DENSITY-- D.U.	POP.
1205.1	2.63	1572	4134.36	240	631.2	0	0	0	0	0	0	0	0
1205.02	2.52	528	1330.56	312	786.24	0	0	0	0	0	0	0	0
1208	2.18	1092	2380.56	352	767.36	1408	3069.44	184	401.12	624	1360.32	40	87.2
1209.01	2.1	328	688.8	0	0	68	142.8	160	336	0	0	0	0
1209.02	1.68	536	900.48	224	376.32	76	127.68	0	0	0	0	0	0
1210	2.43	408	991.44	0	0	380	923.4	160	388.8	448	1088.64	104	252.72
1207	2.17	360	781.2	40	86.8	164	355.88	0	0	0	0	0	0
1909	2.3	1280	2944	0	0	156	358.8	0	0	0	0	0	0
1910.1	2.71	148	401.08	0	0	0	0	0	0	0	0	0	0
1910.2	2.85	296	843.6	0	0	0	0	0	0	0	0	0	0
1912	2.45	24	58.8	0	0	0	0	0	0	0	0	0	0
1913	1.81	28	50.68	0	0	0	0	0	0	0	0	0	0
1914	1.85	64	118.4	0	0	0	0	0	0	0	0	0	0
1211.01	2.71	1504	4075.84	0	0	36	97.56	0	0	0	0	0	0
TOTALS		8168	19699.8	1168	2647.92	2288	5075.56	504	1125.92	1072	2448.96	144	339.92

Table 5-4

ALTERNATIVE VII: GREATER PERCENT OF STAGE 3 AIRCRAFT

****

NOISE IMPACTED RESIDENTIAL AND VACANT LAND BY CENSUS TRACT AND NOISE CONTOUR INTERVAL

(ALL VALUES IN ACRES)

CENSUS	LDN 65-70:			LDN 70-75:			ABOVE LDN 75			TOTAL BY CENSUS
TRACT	LDR	HDR	VACANT	LDR	HDR	VACANT	LDR	HDR	VACANT	TRACT
1205.1	339	29	43	0	0	0	0	0	0	411
1205.02	63	11	11	0	0	0	0	0	0	85
1208	290	19	0	381	25	0	38	0	0	753
1209.1	73	9	0	3	13	0	0	0	0	98
1209.02	132	13	183	0	0	124	0	0	0	452
1210	94	0	0	69	2	0	44	10	0	219
1207	58	15	0	22	20	0	0	0	0	115
1912	6	0	0	0	0	0	0	0	0	6
1913	0	0	4	0	0	0	0	0	0	4
1914	9	0	170	0	0	0	0	0	0	179
1211.01	5	0	7	0	0	0	0	0	0	12
TOTALS	1,069	96	418	475	60	124	82	10	0	2,334

IMPACT SUMMARY TABLE:

TOTAL POPULATION LDN 65-70	18,854
TOTAL POPULATION LDN 70-75	5,250
TOTAL POPULATION ABOVE LDN 75	1,712
TOTAL.....	25,816

CENSUS	PERSONS PER	LDN 65-70: --LOW DENSITY-		--HIGH DENSITY--		LDN 70-75 --LOW DENSITY-		--HIGH DENSITY--		LDN 75+ --LOW DENSITY-		--HIGH DENSITY--	
TRACT	HOUSEHOLD	D.U.	POP.	D.U.	POP.	D.U.	POP.	D.U.	POP.	D.U.	POP.	D.U.	POP.
1205.1	2.63	1356	3566.28	232	610.16	0	0	0	0	0	0	0	0
1205.02	2.52	252	635.04	88	221.76	0	0	0	0	0	0	0	0
1208	2.18	1160	2528.8	152	331.36	1524	3322.32	200	436	304	662.72	0	0
1209.1	2.1	292	613.2	72	151.2	12	25.2	104	218.4	0	0	0	0
1209.02	1.68	528	887.04	104	174.72	0	0	0	0	0	0	0	0
1210	2.43	376	913.68	0	0	276	670.68	16	38.88	352	855.36	80	194.4
1207	2.17	232	503.44	120	260.4	88	190.96	160	347.2	0	0	0	0
1912	2.45	24	58.8	0	0	0	0	0	0	0	0	0	0
1913	1.81	0	0	0	0	0	0	0	0	0	0	0	0
1914	1.85	36	66.6	0	0	0	0	0	0	0	0	0	0
1211.01	2.71	20	54.2	0	0	0	0	0	0	0	0	0	0
TOTALS		4276	9827.08	768	1749.6	1900	4209.16	480	1040.48	656	1518.08	80	194.4

Table 5-5

CHAPTER 6: NOISE COMPATIBILITY PROGRAM

Section 6-1: INTRODUCTION

6-1.1 Purpose

The purpose of this program is to present the plan by which the City of San Antonio proposes to mitigate or abate, to the maximum extent reasonable, the noise impact of aircraft operating at San Antonio International Airport. This plan is to be implemented during the period from the present through 1993 and will require the cooperative effort of all levels of government as well as some private enterprise and community groups.

6-1.2 Other Studies

This program is the culmination of several study efforts; most specifically, the Airport Master Plan and the Federal Aviation Regulation Part 150 Noise Study. The Airport Master Plan provided the necessary input for identifying the physical facilities of the airport, the present and projected levels of activity, and the type of aircraft and their flight tracks using the airport. The FAR Part 150 study, of which this program is a part, provided the necessary information concerning the surrounding communities, the level of aircraft noise estimated in those areas presently, and possible future impacts. That study also provided an analysis of over 20 alternatives for mitigating or abating the noise impacts.

6-1.3 Overview of the Program

The evaluation of alternatives completed in Chapter 5 of this study recommends 13 possible elements of a plan that can benefit the City's interest in reducing the noise generated by aircraft using the San Antonio International Airport. Those elements are described in more detail in remaining portions of this report and are listed here for identification purposes only.

1. Establish Noise Abatement Officer
2. Establishment of a Noise Abatement Advisory Committee
3. Create a Noise Complaint Monitoring Program
4. Utilize a Noise Abatement Departure Profile: Thrust Cut-Back
5. Implement a Pilot Advisory Program
6. Continue Restrictions on Engine Run-Ups
7. Seek a Greater Percent of Stage 3 Aircraft

8. Noise Monitoring

9. Utilize Comprehensive Land Use Planning and Zoning

10. Acoustical Treatment/Avigation Easement Program

11. Utilize Disclosure Ordinances

12. Purchase Assurance Program

6-1.4 Schedule for Implementation

It is anticipated that implementation of this Plan can begin immediately, however several elements of the Plan will require additional studies by the implementing agencies and funding assistance from the FAA over the next five years. Figure 6-1 provides a flow diagram type schedule showing the relationships and relative time frames of implementation of each element of the Plan. The schedule is ambitious but realistic if the program is implemented aggressively by the airport and local government.

With respect to the Purchase Assurance and Acoustical Treatment Programs, the schedule assumes a relatively steady flow of federal grant money over the next ten years. It is also impossible to predict how successful the airport will be in obtaining these grants, therefore the actual implementation schedule may vary from what is offered here.

6-1.5 Provisions for Revising the Plan

One element of this Plan is the formation of a Noise Abatement Advisory Committee to monitor the results of other elements of the Plan. That committee's responsibilities will include the assessment of the success of the Plan on at least an annual basis as well as a report to the City and FAA of the results of that assessment. The committee will also prepare specific recommendations for revisions to the Plan when such revisions are required to insure the success of the Plan.

6-1.6 Program Costs

Noise Abatement Measures

Direct costs for implementing noise abatement measures are discussed below, however they are not quantified since it is believed that the costs would be quite small and considered as administrative expenses.

- Noise Abatement Departure Profile: Any operating costs associated with these procedures have already been incurred and cannot be accounted for in the NCP, since the procedure has been in place for sometime.

SAN ANTONIO INTERNATIONAL AIRPORT
NOISE COMPATIBILITY PROGRAM
IMPLEMENTATION SCHEDULE

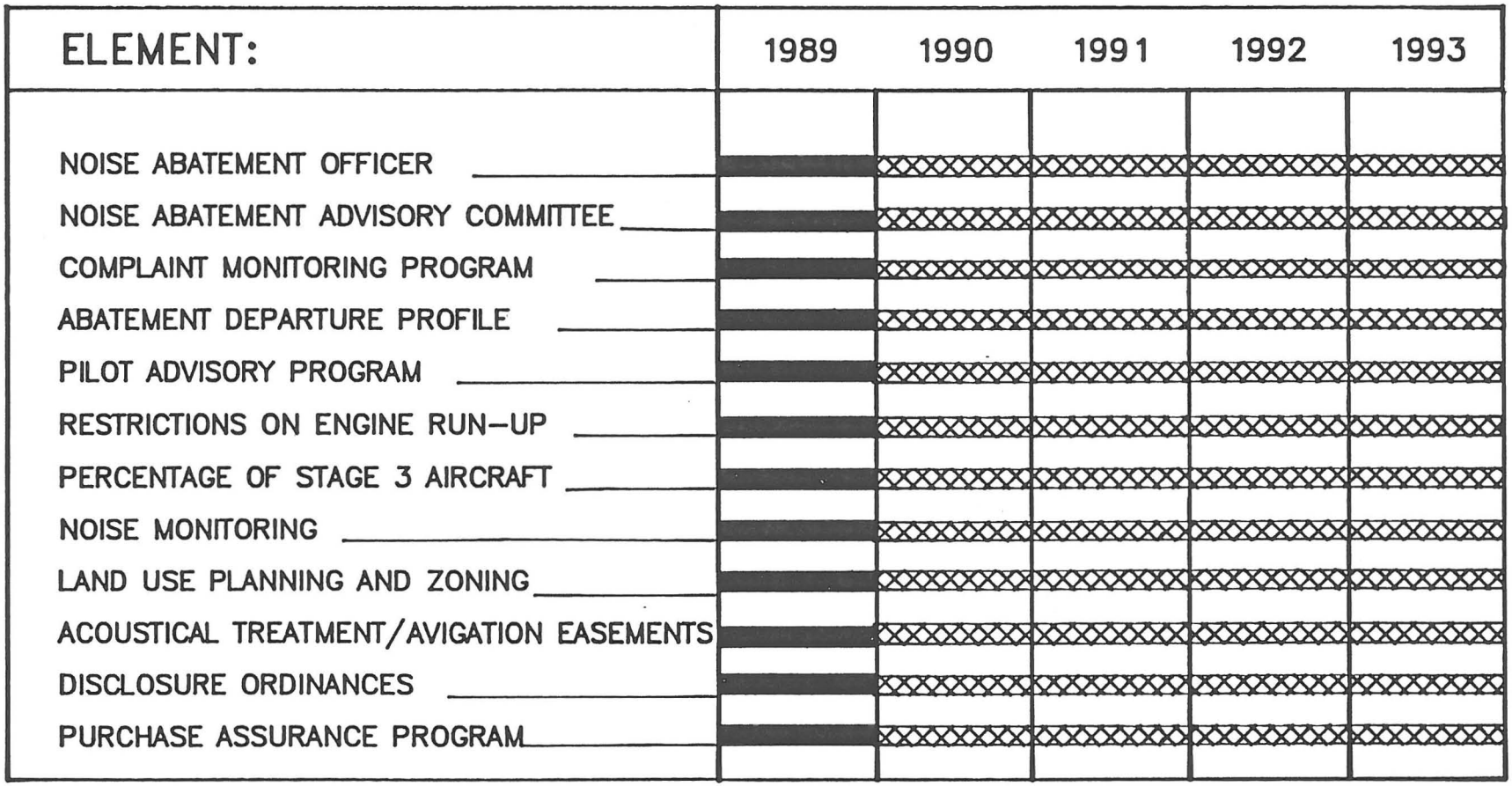


Figure 6-1

Noise Mitigation Measures

Any land use or noise mitigation measure which involves the adoption or amendment of ordinances and policies will involve, for the most part, administrative costs such as staff time. Printing, publishing of legal notices, and advertising are other costs that will be incurred. Land use measures that involve significant sums of money are the purchase assurance program, avigation easement purchase and acoustical treatment of residences and public buildings. The City should secure appraisals from those qualified to do so pursuant to the Federal Uniform Property Acquisition and Relocation Act.

6-1.7 Potential Sources of Funds

The source which has the greatest amount of funding potential for implementing the Noise Compatibility Program is the Airport Improvement Program (AIP) administered by the FAA. Within the 65 Ldn contour the following elements are eligible for 80% FAA funding:

- o costs of land acquisition
- o development rights acquisition
- o avigation easement acquisition
- o acoustical treatment

It is generally impossible to estimate the amount which actually will be received due to national funding uncertainties and other airport competition for funds.

The City of San Antonio would be the second potential source of funds. Since the FAA would provide up to 80% participation, the remaining 20% of the eligible costs would be left to the City.

Section 6-2: NOISE EXPOSURE MAPS

6-2.1 Description of the Noise Exposure Maps

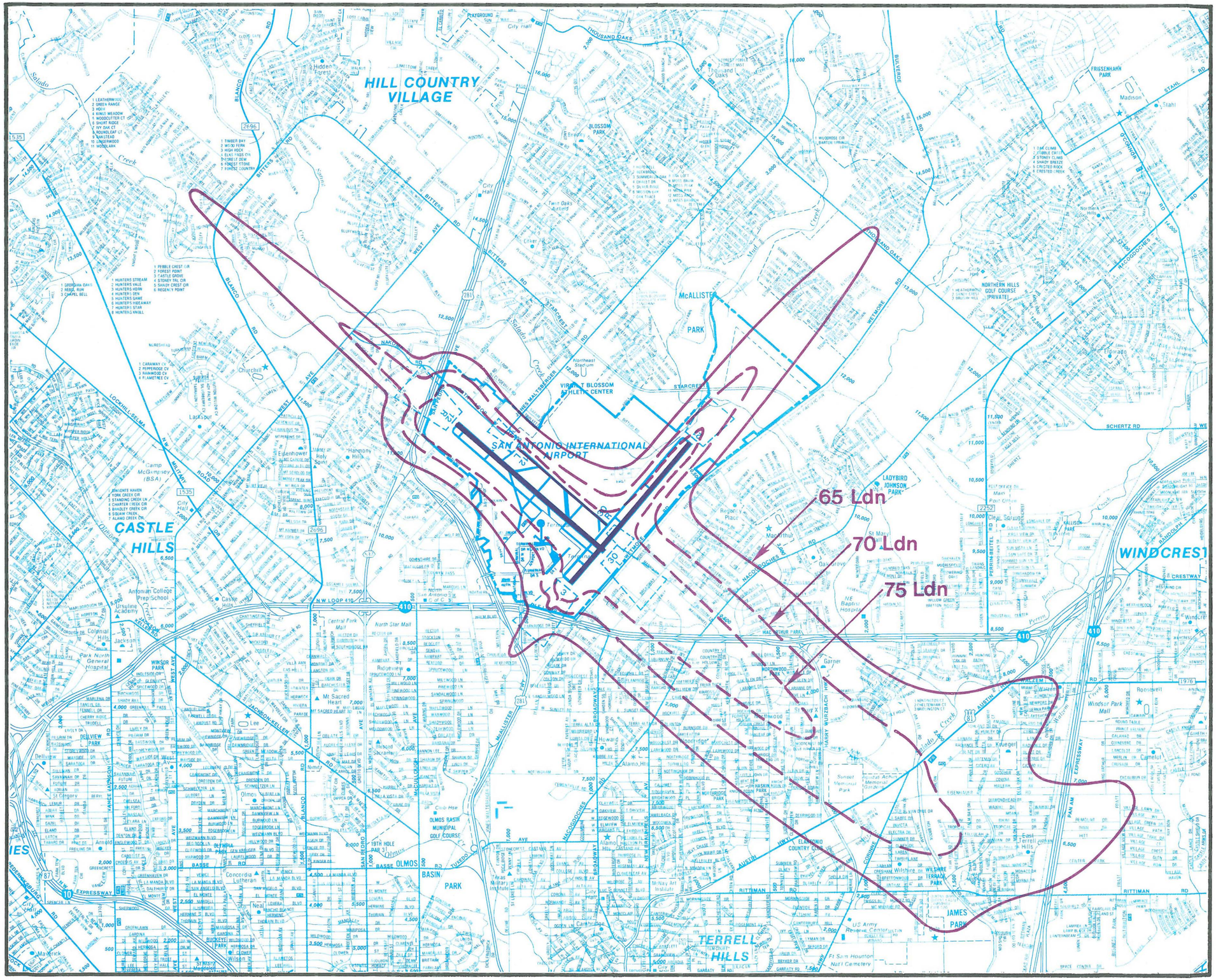
The Noise Exposure Maps consist of base maps of the streets and major land marks in the vicinity of San Antonio International Airport with noise contours superimposed. The noise contour lines were generated through the use of an FAA controlled computer program called the Integrated Noise Model (INM). The data used for the computer analysis consisted of the specific aircraft operations at the airport presently and as projected in 1993. The noise generated by the aircraft operations is depicted in three levels with the higher numbers representing the higher intensities of noise. The contours represent the estimated "average" day of the year conditions and are presented as Levels Day/Night (Ldn) which are the recognized measures of community disturbance levels developed by the FAA and EPA.

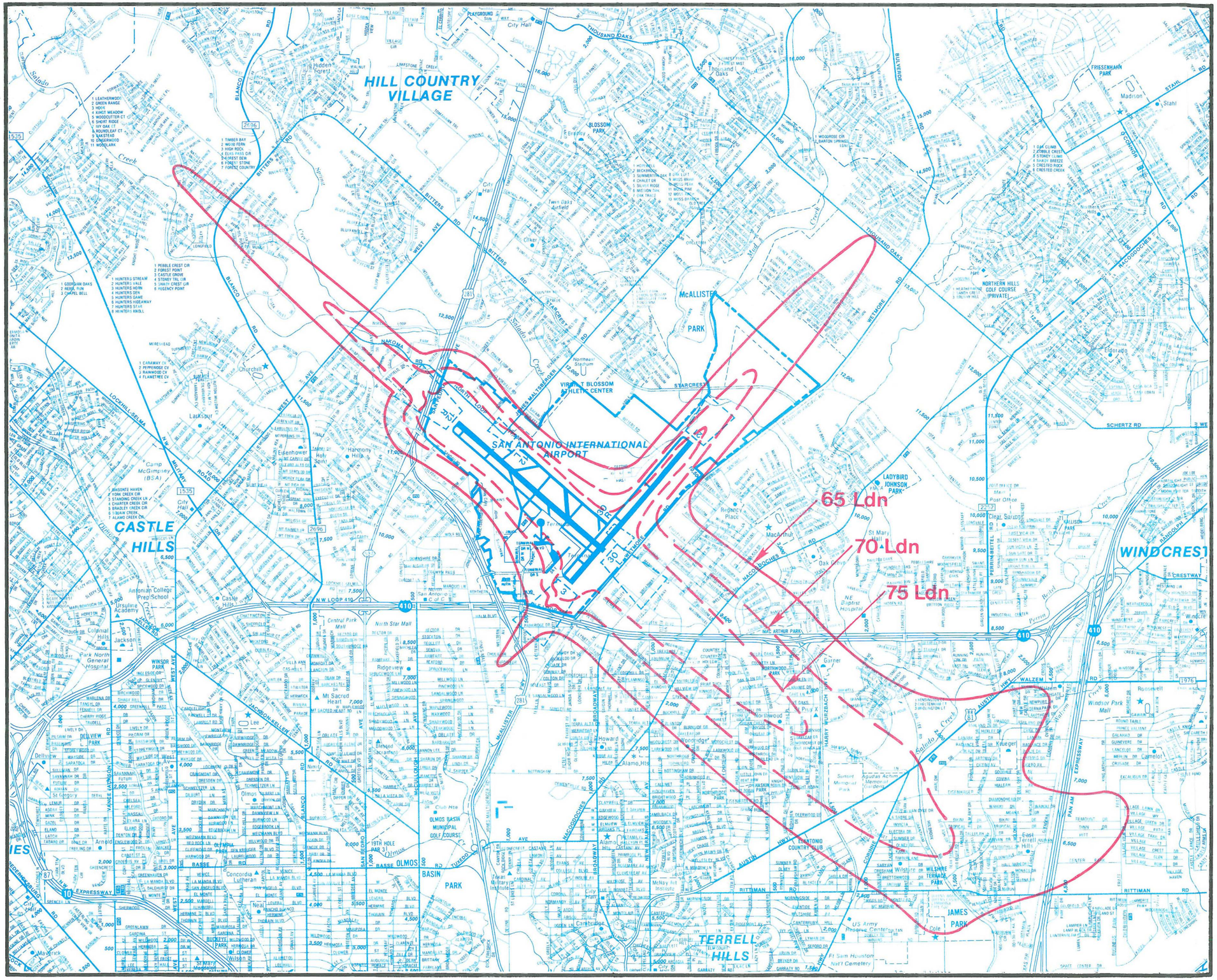
The three maps which represent the outcome of the Integrated Noise Model analysis for the Part 150 Noise Study are included on following pages and described as follows:

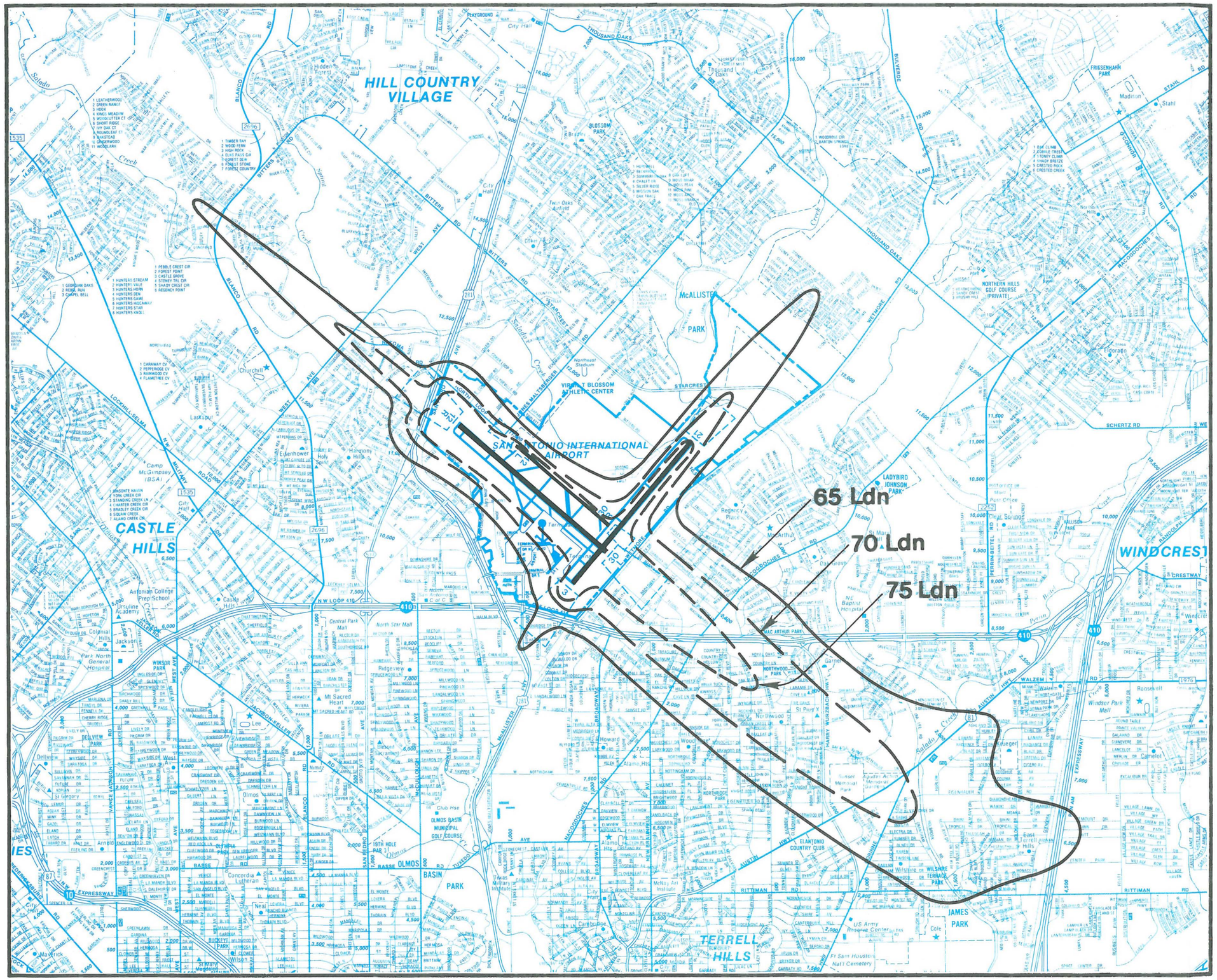
- 1987 NOISE EXPOSURE MAP (Figure 6-2): This map represents the noise contours as the computer model estimates them to be based upon the current level of flight activity and types of operations.

- 1993 NOISE EXPOSURE MAP (Figure 6-3): This map represents the projected noise exposure of existing conditions in the year 1993, assuming a normal growth in airport actual activity but no changes in the runways, or aircraft mix.

- WITH COMPATIBILITY PROGRAM 1993 (Figure 6-4): The 1993 noise conditions indicated on this map are based upon an increase in Stage 3 aircraft operating at the airport, from the existing mix of 22%, to 60% by 1993, and the continued use of the FAA's "Standard Thrust Cut Back Procedure".


HILL COUNTRY VILLAGE
CASTLE HILLS
SAN ANTONIO INTERNATIONAL AIRPORT
McALLISTER PARK
VIRGINIA BLOSSOM ATHLETIC CENTER
NORTHERN HILLS GOLF COURSE (PRIVATE)
LADYBIRD JOHNSON PARK
WINDCREST
TERRELL HILLS
OLMOS BASIN MUNICIPAL GOLF COURSE
JAMES PARK
65 Ldn
70 Ldn
75 Ldn
N
Scale
1"= 4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
Noise Exposure Map
1987
NOISE CONTOURS


HILL COUNTRY VILLAGE
CASTLE HILLS
TERRELL HILLS
WINDCREST
SAN ANTONIO INTERNATIONAL AIRPORT
McALLISTER PARK
65 Ldn
70 Ldn
75 Ldn
N
Scale
1"= 4,251'
SAN ANTONIO INTERNATIONAL AIRPORT
FAR Part 150 Noise Compatibility Study
Future Noise Exposure Map
1993 NOISE CONTOURS



SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

GREATER PERCENT OF STAGE 3 AIRCRAFT

WITH COMPATIBILITY PROGRAM

Section 6-3: RECOMMENDED PLAN ELEMENTS

6-3.1 Summary

The recommended Plan elements presented in this section are measures that can be taken to; a) reduce the off-airport areas exposed to high levels of noise and b) mitigate the effects of noise in the future.

The elements to be implemented include the continuation of existing efforts and the adoption of new measures to abate noise, as well as the adoption of land use controls to reduce the amount of noise-sensitive development that would be permitted in areas exposed to high levels of aircraft noise in the vicinity of San Antonio International Airport.

The Plan presents each element by identifying the agency responsible for its implementation, the agency responsible for financing the element, an estimate of the cost to implement each and an implementation action to pursue for each element of the Plan.
Table 6-1 summarizes the elements recommended in the Noise Compatibility program. The table lists costs, schedules, responsibilities, and sources of funds for noise abatement, mitigation, and implementation plans.

Table 6-1

San Antonio International Airport
Noise Compatibility Program
Summary

Measure	Cost Airport/FAA Local govt	Timing	Lead Responsibility	Funding Source
Noise Abatement Officer	Administrative	1989	Airport/City	Operating Budget
Noise Abatement Advisory Committee	Administrative	on-going	Airport/City	Operating Budget
Noise Complaint Monitoring Program	Administrative	1989	Airport/City	Operating Budget
Noise Abatement Procedure	Administrative	1989	Airport	Operating Budget Control Tower Aircraft Operator
Pilot Advisory Program	Administrative	1989	Airport	Operating Budget Control Tower Aircraft Operator
Restrictions on Engine Run-ups	Administrative	on-going	Airport	Operating Budget Aircraft Operators
Greater Percent of Stage 3 Aircraft	Administrative	on-going	Airport	Operating Budget
Monitoring Noise	($30,000-50,000 per year)	1990-1993	Airport	Operating Budget/FAA
Comprehensive Land use Planning and Zoning	$50,000	1989	City Planning	FAA/ Operating Budget
Acoustical Treatment/ Avigation Easements	$500,000-$1,000,000/per School $12,000/per home/ $100,000-500,000/per church	1990-1993	School Districts Airport/City Church Organizations	FAA-80% Operating Budget FAA - 80%
Disclosure Ordinances	Admin.	1989	City	Operating Budget
Purchase Assurance Program	$1,000,000/ annually	1990-1993	City	FAA/ Operating Budget
Total Costs 1989 - 1993	$19,400,000 to $34,000,000			

ELEMENT: **# 1. Establish Position of Noise Abatement Officer**

RESPONSIBILITY: City of San Antonio - Mayor and City Council

FINANCING: City of San Antonio
$ 25,000 - 35,000 Annual Salary
$ 5,000 - Training and Services (annual cost)
$ 5,000 - Reference materials and special supplies (annual cost)

IMPLEMENTATION ACTION:

- This item has been implemented
- Director of Aviation prepares a job description for the position of Noise Abatement Officer within the Department of Aviation.
- City approves the position and salary in the annual operating budget of the airport.
- Department of Personnel conducts the necessary recruiting and hiring process to staff the position.
- Department of Aviation arranges for appropriate training and attendance at seminars.

ELEMENT: **# 2. Noise Abatement Advisory Committee**

RESPONSIBILITY: City of San Antonio - Mayor and City Council

FINANCING: City of San Antonio - 100%
$ 1,000 Supplies and Postage (annual cost)
$ 2,500 Clerical and other support (annual cost)

IMPLEMENTATION ACTION:

- City authorizes this item as a part of the airport operating budget.

- Membership on the committee should consist of two members from the City Council, the Director of Aviation, the Airport Noise Abatement Officer, and representatives from various neighborhood and community organizations.

- Committee meetings should be held quarterly to review the progress and success of the Plan.

- Committee meetings to be documented by the Noise Abatement Officer and made available for public review.

- Committee should conduct an annual review on the Plan and prepare a report including suggested Plan revisions for consideration by the City and FAA.

ELEMENT: # 3. Noise Complaint Monitoring Program

RESPONSIBILITY: City of San Antonio - Department of Aviation

FINANCING: City of San Antonio - 100%
$ 4,000 Equipment (one time cost)
$ 1,200 Public Notices (annual cost)
$ 1,500 Supplies and Postage (annual cost)
$ 5,000 Clerical staff time (annual cost)

IMPLEMENTATION ACTION:

- City authorizes this item as a part of the airport capital and operating budget.

- Airport Director assigns responsibility for administering this function to the Noise Abatement Officer.

- Noise Abatement Officer procures necessary equipment and supplies, and arranges for a staff member to provide clerical support.

- Noise Abatement Officer establishes a standard policy for recording the information available, i.e. name and address, time and date of disturbance, type of aircraft or type of operation, etc.

- Noise Abatement Officer establishes a log of the information collected for future analysis and use.

- Noise Abatement Officer establishes a standard form of information to be mailed out in response to each complaint.

- The Noise Abatement Officer provides a quarterly analysis of noise complaints to identify:

    a. The approximate location of complaints received during that quarter,

    b. any pattern of complaints that indicates a worsening of noise in a specific geographical area,

    c. any pattern of time of day of complaints that might indicate a specific flight or other factor producing an abnormally high amount of noise impact,

    d. complaints that are received from geographical area not previously disturbed by aircraft noise.

ELEMENT: # 4. **Noise Abatement Departure Profile**

RESPONSIBILITY: City of San Antonio/Airport

FINANCING: City of San Antonio
$ estimate not available (ARTS Data)

IMPLEMENTATION ACTION:

- The Noise Abatement Officer prepares a brief overview of the Standard Thrust Cut-back Procedure as described in FAA Advisory Circular 91-53A. In addition, a map of the noise impacted areas under the flight paths at the airport will be prepared highlighting residential areas (use of the map identified as Figure 6-3 of this report is suggested).

- A letter is to be prepared for transmittal to each airline serving San Antonio requesting their pilots, cooperation by adhering to the Standard Thrust Cut-back procedure. The materials described above should be attached. It should be noted that this procedure is applicable only to Stage 2 aircraft.

- A letter is to be prepared for transmittal to general aviation and corporate users requesting pilots cooperate and adhere to standard noise abatement departure procedures. The National Business Aircraft Association (NBAA) should also be informed of this request.

- The Noise Abatement Officer requests, of the FAA Air Traffic Control Manager, at San Antonio (through the Freedom of Information Act) the Automated Radar Terminal System data for one 24 hour period each month. The FAA will provide the airport an estimate of the cost to obtain the ARTS data. That data is to be used to plot the departure profiles for all Stage 2 aircraft operated those days. These actual profiles are to be compared to the profiles assumed for this procedure in the FAA Integrated Noise Model (as contained in Chapter 5 of the FAR Part 150 Noise study).

- The Noise Abatement Officer provides a report indicating compliance with AC 91-53A to the Noise Abatement Advisory Committee at each meeting. That report will indicate the percentage of compliance and will identify any repeated non compliance by a specific airline or a specific flight.

- The Noise Abatement Advisory Committee recommends to the City action which is deemed appropriate.

- The Noise Abatement Officer monitors the progress of studies under way by the FAA and Air Transport Association concerning modifications to the current "standard" procedure that would benefit the community around San Antonio International Airport. Should such modifications to these procedures become usable at San Antonio, the Noise Abatement Officer will prepare a request for Airline Compliance to be transmitted by the Director of Aviation.

ELEMENT: **# 5. Pilot Advisory Program**

RESPONSIBILITY: City of San Antonio - Department of Aviation

FINANCING: City of San Antonio - 20 %
Federal Aviation Administration - 80 %
$ 15,000 Airfield Signage (one time cost)
$ 1,500 Production and circulation of notices (annual cost)

IMPLEMENTATION ACTION:

- City authorizes this item as a part of the airport capital and operating budget.
- Department of Aviation prepares an application for an FAA grant to fund the program.
- Signs are to be placed at the six runway ends to remind pilots to exercise noise abatement procedures whenever possible.
- Noise Abatement Officer will publish a notice of the City's noise abatement program, as applicable to aircraft operations, to be circulated to corporate and commercial pilots using the airport. Commercial pilots would receive the notice through their respective companies.

ELEMENT: **# 6. Restrictions on Engine Run-up**

RESPONSIBILITY: City of San Antonio - Department of Aviation

FINANCING: City of San Antonio
$ No identifiable cost

IMPLEMENTATION ACTION:

- The City proposes to review and maintain in the Airport Rules and Regulations the engine run-up restrictions currently identified in Section 3-94.

- The Noise Abatement Officer advises the Committee of any noise complaints from airport neighbors which might indicate problems associated with engine run-ups. Any such problems are to be investigated for additional study and appropriate action.

ELEMENT: **# 7. Greater Percent of Stage 3 Aircraft**

RESPONSIBILITY: City of San Antonio - Department of Aviation

FINANCING: City of San Antonio

$ No identifiable cost

IMPLEMENTATION ACTION:

- City Department of Aviation sets an annual goal of increasing the percentage of Stage 3 (new quiet aircraft) in the commercial aircraft fleet serving the airport. The Plan objective is to increase that percentage from 22 % in 1988 to 60 % by the end of 1993.

- The Noise Abatement Officer prepares a letter to each airline serving the airport to advise them of this goal. However, the letter should clearly state that this is a voluntary program.

- The Noise Abatement Officer maintains a record of aircraft in the fleet of each airline serving San Antonio and the percentage of that fleet that is qualified as Stage 3 under Federal Aviation Regulation Part 36. The mix of aircraft used by each airline serving San Antonio will also be noted on a bi-annual basis, specifically the percentage of those aircraft that are Stage 3.

- The Noise Abatement Officer will prepare for City endorsement, letters of recognition for those airlines:

  a. which meet or exceed the City's goal for percentage of Stage 3 aircraft in the airport service fleet in any six month period.

  b. whose aircraft fleet used to serve San Antonio contains a greater percentage of Stage 3 aircraft than does their total corporate fleet of aircraft.

- The Noise Abatement Advisory Committee will be invited to submit for City consideration any other measures which they deem appropriate for further recognition of the airlines cooperating in achieving the goals of this element.

ELEMENT: **#8. Noise Monitoring**

RESPONSIBILITY: City of San Antonio - Department of Aviation

FINANCING: City of San Antonio - 20 %
Federal Aviation Administration - 80 %
$25,000 - Independent laboratory monitoring (annual cost)

IMPLEMENTATION ACTION:

- City to authorize this item as a part of the airport operating budget.
- City to prepare application to FAA for funding of the program.
- Noise Abatement Officer to identify monitoring sites based upon noise complaints and to schedule an independent laboratory to conduct a one to two week sampling at sites.
- Noise Abatement Officer to make reports of the monitoring results available to the Noise Abatement Advisory Committee at its regular meetings.

ELEMENT: **# 9. Comprehensive Land Use Planning and Zoning**

RESPONSIBILITY: City of San Antonio

FINANCING: City of San Antonio - 20 %
Federal Aviation Administration - 80 %
$ 50,000 Analysis of Vacant Properties
$ to be determined in further studies

IMPLEMENTATION ACTION:

- Implementation of the following actions should depend directly upon the availability of funding from the FAA for this element. The Department of Aviation will prepare and submit the necessary applications for FAA funding of the pilot program described in the following paragraphs. The City should, based upon the success of this pilot program, make a determination as to whether they wish to proceed with this element of the program or modify it for future implementation.

- The Aviation Department in coordination with the City Planning Department is to undertake a "Vacant Properties" analysis within the 65 to 75 Ldn impact area (as projected for 1993). That analysis should:

  o identify the individual parcels by tax map number and other information,

  o determine the current zoning and land use controls which apply to each parcel,

  o determine the noise level range projected over that property (65-70 or 70-75 Ldn),

  o compare the land uses permitted under the current Land Use Plan and Zoning Ordinances with the recommended compatible uses under current FAA criteria,

  o identify those properties for which the compatible uses based upon noise are not permitted by the current zoning,

  o recommend: a) rezoning to use compatible with the projected noise level, or b) to allow a normally incompatible type of development with provisions for special acoustical treatment in the construction.

- A special building code is to be developed that will require special acoustical treatment in construction of buildings that fall within designated noise compatible zones.

- A pilot program for this element will include a request to the FAA for funding assistance for buildings within these zones on the basis of floor space, to approximately offset the additional cost of the special construction.

- The current Zoning Ordinance is to be supplemented with a Noise Overlay Zone which represents the projected Ldn levels of 65-70, 70-75, and 75+. Any property within this zone would require a special review for noise compatibility prior to the issuance of a building permit. The review to be accomplished in coordination with the Building Inspections Department.

- Properties recommended for rezoning, in the special vacant property analysis, would be rezoned using one of three methods: a) willing owner acceptance of the rezoning, b) negotiated compensation for the appraised value differential between the current zoning and the proposed new zoning, or c) acquisition of the property, imposing the new zoning, and resale with the new zoning in place.

- On the basis of the Vacant Properties analysis, the airport staff will coordinate with the appropriate city planning departments to initiate contact with those owners of properties within the 70 to 75 Ldn impact area relative to the proposed changes in zoning and/or special building code. Based upon those contacts the Aviation Department will arrive at a pilot program budget to address the issue in the order of priorities established for the properties impacted. Those priorities will be based upon the noise levels, and the degree of incompatibility with the uses permitted under the current zoning.

ELEMENT: # 10. **Acoustical Treatment/Avigation Easements**

RESPONSIBILITY: City of San Antonio

FINANCING: City of San Antonio - 20 %
Federal Aviation Administration - 80 %
$ 50,000 Preliminary Design
$ 500,000 - 1,000,000 Final Design and Construction

IMPLEMENTATION ACTION:

- The Noise Abatement Officer is to make initial contact with the administrators of the following public buildings which are projected to remain within the 65 or 75 Ldn noise contour through 1993:

  - Northwood Elementary - 75 Ldn
  - St. Pius X School - 70 Ldn
  - Garner Middle School - 65 Ldn
  - Krueger Middle School - 65 Ldn
  - East Terrell Hills Elementary - 65 Ldn
  - Walzem Elementary - 65 Ldn
  - St. Thomas More School - 65 Ldn
  - Wilshire Elementary - 65 Ldn
  - Woodridge Elementary - 65 Ldn
  - Hillside Manor Nursing Home - 65 Ldn
  - Casa de San Antonio Nursing Home - 65 Ldn
  - St. Pius X Church
  - St. Thomas More Catholic Church
  - MacArthur Park Church of God
  - MacArthur Park Lutheran Church
  - Bethel Memorial Lutheran Church
  - Coker United Methodist Church
  - Eisenhauer Road Baptist Church
  - Alliance Bible Church

The purpose of this contact is to ascertain the desire of the building owner/tenant to have that building included in a detailed study of interior noise and modifications to reduce aircraft noise intrusion.

The Noise Abatement Officer will establish a Pilot Program with authorization to acoustically treat up to five homes so as to determine the best way to administer the program to homeowners and to test for various sound attenuation of techniques. The homes chosen for the pilot study will come from a list of volunteers wishing to participate in the program.

- The Noise Abatement Officer prepares a project description for preliminary design studies of each building to be included in pilot studies. Each study is to provide for:

  o continuous monitoring of interior noise of each building for five consecutive 24 hour periods. Only those buildings found to have a daytime single event interior noise level of 55 dbA will be considered as candidates for the treatment.

  o an inventory of the present buildings structure with specific information concerning the type and amount of insulation in the attic, ceilings and walls, the type of glass, the type of doors, the type of ventilation, the existence of air conditioning, and any weather stripping,

  o identify specific improvements which can be used to reduce interior noise, and perform a cost effectiveness evaluation for each type of improvement,

  o provide detailed cost estimates for recommended improvements for each building.

- The Noise Abatement Officer will coordinate the results of each Pilot study with the Noise Abatement Advisory Committee.

- The Noise Abatement Officer prepares an application for FAA funding assistance to accomplish the recommended Acoustical Treatment Program. Subject to the City acceptance of an FAA grant for the program the Department of Aviation shall carry out the treatment and secure the FAA recommended Avigation Easements in return for the program.

ELEMENT: **#11. Disclosure Ordinance**

RESPONSIBILITY: City of San Antonio

FINANCING: City of San Antonio
$ No identifiable cost

IMPLEMENTATION ACTION:

- City council approves an ordinance requiring the disclosure of potential noise impact information to all property owners making application for subdivision, rezoning, building permits, or resale of existing buildings.

- The Airport Noise Abatement Officer is to develop a public information package for distribution at City Hall, all Public Libraries, at the airport, and for mail out to all persons inquiring of such information. That information will clearly depict the noise exposure areas and the compatible and non-compatible land uses for each level of noise exposure (using materials from this report).

ELEMENT: **#12. Purchase Assurance Program**

RESPONSIBILITY: City of San Antonio

FINANCING: City of San Antonio - 20 %
Federal Aviation Administration - 80 %
$ 1,000,000 Recommended Annual Program Budget

IMPLEMENTATION ACTION:

- Implementation of the following actions should depend directly upon the availability of funding from the FAA for this element. The Department of Aviation will prepare and submit the necessary applications for FAA funding of the program described in the following paragraphs.

- The Aviation Department, in coordination with the City Planning Department would, under this element, identify all residential property within the 1993 noise impact area of 75+ Ldn by tax map references. The potential is that 500 to 800 dwelling units will be involved.

- The City should survey affected property owners to determine the level of interest in the program and prepare a preliminary estimate of costs.

- The Planning Department will assure that the property owners' rights are protected under the guidelines of Public Law 91-46, The Real Property Acquisition and Relocation Act.

- The property purchased is to have the residential units removed and the property identified for use or disposal in the following order of priority: a) resale to the public with deed restrictions as to future type of use, b) made available for a compatible type of use within the public domain, held as public owned vacant property.

APPENDIX A

NEM CHECKLIST

FAR PART 150
NOISE EXPOSURE MAP CHECKLIST--PART I

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
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		
2. a NEM and NCP	Yes	Cover Sheet	
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	Cover	
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	Cover Letter	
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 E: E-1	
B. Identification:			
1. Are the consulted parties identified?	Yes	Appendix E: E-1	
2. Do they include all those required by 150.21(b) and A150.105(a)?	Yes	Appendix E: E-1	
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	Cover Letter	All comments included in Appendix F.

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
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	Text: p.42, 45/Large Drawing Set	
B. Map currency:			
1. Does the existing condition map year match the year on the airport operator's submittal letter?	No	See B3	
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	Section 3-5 p.43	
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	Cover Letter	

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
IV. MAP SCALE, GRAPHICS, AND DATA REQUIREMENTS: [A150.101, 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	p. 42, p. 45 and 1"= 2000' set	
B. Is the quality of the graphics such that required information is clear and readable?	Yes	p. 42, p. 45 and 1" = 2000' set	
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	p. 42, p. 45 and 1" = 2000' set	
b. runway configurations with runway end numbers	Yes	p. 42, p. 45 and 1" = 2000' set	
2. Does the depiction of the off-airport data include:			
a. a land use base map depicting streets and other identifiable geographic features	Yes	Fig. 4-1, 4-2 and 1" = 2000' set	
b. the area within the 65 Ldn (or beyond, at local discretion)	Yes	p.42,45/Fig 4-1,4-2 & 1" = 2000 set	
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	p.16 Fig. 2-2	
D. 1. Continuous contours for at least the Ldn 65, 70, and 75?	Yes		
2. Based on current airport and operational data for the existing condition year NEM, and forecast data for the 5-year NEM?	Yes	Section 3-5	
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			

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
condition and 5-year NEM), which are numbered to correspond to accompanying narrative?	Yes	p.10, Fig. 1-5	
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 C	
G. Noncompatible land use identification:			
1. Are noncompatible land uses within at least the 65 Ldn depicted on the maps?	Yes	Section 4-4, Fig. 4-1, 4-2, App. D	
2. Are noise sensitive public buildings identified?	Yes	Section 4-6, Fig. 4-3, Appendix D	
3. Are the noncompatible uses and noise sensitive public buildings readily identifiable and explained on the map legend?	Yes	Fig. 4-3	
4. Are compatible land uses, which would normally be considered noncompatible, explained in the accompanying narrative?	Yes	p. 53 Sec. 4-1.5	
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	p.35 Section 3-3	
2. Are the underlying technical data and planning assumptions reasonable?	Yes		
B. Calculation of Noise Contours:			
1. Is the methodology indicated?	Yes	p.29 Sec.29	
a. is it FAA approved?	Yes		
b. was the same model used for both maps?	Yes		
c. has AEE approval been obtained for use of a model other than those which have previous blanket FAA approval?	N/A/		

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
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		
b. if so, does this have written approval from AEE?	N/A		
3. If noise monitoring was used, does the narrative indicate that Part 150 guidelines were followed?	Yes	Appendix C	
4. For noise contours below 65 Ldn, does the supporting documentation include explanation of local reasons? (Narrative explanation is highly desirable but not required by the Rule.)	N/A		
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	p.66 Sec. 4-7	
2. Does the documentation indicate whether table 1 of Part 150 was used by the airport operator?	Yes	p. 55 Sec. 4-2	
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 operator's complete substitution for table 1?	N/A		

AIRPORT NAME: San Antonio International Airport REVIEWER_____

	Yes/No/NA	Page No./Other Reference	Notes/Comments
3. Does the narrative include information on self-generated or ambient noise where compatible/-noncompatible land use identifications consider non-airport/aircraft sources?	Yes	p. 52 Sec. 4-11	
4. Where normally noncompatible land uses are not depicted as such on the NEMs, does the narrative satisfactorily explain why, with reference to the specific geographic areas?	Yes	p. 62 Sec. 4-4	
5. Does the narrative describe how forecasts will affect land use compatibility?	Yes	p.57 Sec. 4-3	
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 correct- and adequacy of the draft maps and forecasts?	Yes	Cover letter	
B. Has the operator certified in writing that each map and description of consultation and opportunity for public comment are true and complete?	Yes	Cover letter	

Issued In Washington, APP-600, March 1989

APPENDIX B

NCP CHECKLIST

FAR PART 150
NOISE COMPATIBILITY PROGRAM CHECKLIST--PART I

AIRPORT NAME SAN ANTONIO INTERNATIONAL AIRPORT REVIEWER

	Yes/No/NA	Page No/Other Reference	Notes/Comments
I. IDENTIFICATION AND SUBMISSION OF PROGRAM:			
A. Submission is properly identified:			
1. FAR 150 NCP ?	N		
2. NEM and NCP together ?	Y	COVER SHEET	
3. Program revision?	N		
B. Airport and Airport Operator's name identified ?	Y	COVER SHEET	
C. NCP transmitted by airport operator cover letter ?	Y	M.Kutchins	
II. CONSULTATION: [150.23]			
A. Documentation includes narrative of public participation and consultation process?	Y	APPENDIX E	
B. Identification of consulted parties:			
1. all parties in 150.23(c) consulted?	Y	APPENDIX E	
2. public and planning agencies identified?			
3. agencies in 2., above, correspond to those indicated on the NEM?	Y	APPENDIX E	
C. Satisfies 150.23(d) requirements:			
1. documentation shows active and direct participation of parties in B., above?	Y	APPENDIX E	
2. active and direct participation of general public?	Y	APPENDIX E	
3. participation was prior to and during development of NCP and prior to submittal to FAA?	Y	APPENDIX E	
4. indicates adequate opportunity afforded to submit views, data, etc.?	Y	APPENDIX E	
D. Evidence included of notice and opportunity for a public hearing on NCP?	Y	APPENDIX F	

AIRPORT NAME SAN ANTONIO INTERNATIONAL AIRPORT REVIEWER _____

	Yes/No/NA	Page No/Other Reference	Notes/Comments
1. includes summary of public hearing comments, if hearing was held?	Y	APPENDIX F	
2. includes copy of all written material submitted to operator?	Y	APPENDICES E & F	
3. includes operator's responses/disposition of written and verbal comments?	Y	APPENDICES E & F	
F. Informal agreement received from FAA on flight procedures?	N/A		

III. NOISE EXPOSURE MAPS: [150.23, B150.35(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?	Y	CHAPTERS 5 & 6	
2. Maps previously found in compliance by FAA?	N		
3. Compliance determination still valid?	N		
4. Does 180-day period have to wait for map compliance finding?	Y		
B. Revised NEMs submitted with program: (Review using NEM checklist if map revisions included in NCP submittal)			
1. Revised NEMs included with program?	___		
2. Has airport operator requested FAA to make a determination on the NEM(s) when NCP approval is made?	Y		
C. If program analysis uses noise modeling:			

AIRPORT NAME SAN ANTONIO INTERNATIONAL AIRPORT REVIEWER

	Yes/No/NA	Page No/Other	Notes/Comments Reviewer
1. INM, HNM, or FAA-approved equivalent?	Y	Chapter 3	
2. Monitoring in accordance with A150.5?	Y	Appendix C	
D. Existing condition and 5-year maps clearly identified as the official NEMs?	Y	Sec. 3-4, 3-5 & Chp.6	
IV. CONSIDERATION OF ALTERNATIVES: [B150.7, 150.23(e)]			
A. At a minimum, are the alternatives below considered?	Y		
1. land acquisition and interests therein, including air rights, easements, and development rights?	Y	P. 79	
2. barriers, acoustical shielding, public building soundproofing	Y	P. 72,77,78	
3. preferential runway system	Y	P. 81	
4. flight procedures	Y	P. 80	
5. restrictions on type/class of aircraft (at least one restriction below must be checked)	Y	CHP. 5	
a. deny use based on Federal standards	Y	P. 75	
b. capacity limits based on noisiness	Y	P. 75	
c. noise abatement takeoff/approach procedures	Y	P. 75-80	
d. landing fees based on noise or time of day	Y	P. 75	
e. nighttime restrictions	N		
6. other actions with beneficial impact	Y	CHP. 5	
7. other FAA recommendations			
B. Responsible implementing authority identified for each considered alternative?	Y	CHP. 5&P.112	
C. Analysis of alternative measures:			
1. measures clearly described?	Y	SECTION 5-4	
2. measures adequately analyzed?	Y	SECTION 5-4	

AIRPORT NAME SAN ANTONIO INTERNATIONAL AIRPORT REVIEWER

	Yes/No/NA	Page No/Other Reference	Notes/Comments
3. adequate reasoning for rejecting alternatives?	Y	SECTION 5-4	
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		

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?	Y	CHP. 6	
2. final recommendations are airport operator's, not those of consultant or third party?	Y	CHP. 6	
B. Do all program recommendations:			
1. relate directly or indirectly to reduction of noise and noncompatible land uses?	Y		
2. contain description of contribution to overall effectiveness of program?	Y	CHP. 5	
3. noise/land use benefits quantified to extent possible?	Y	SECTION 5-4	
4. include actual/anticipated effect on reducing noise exposure within noncompatible area shown on NEM?	Y	SECTION 5-4	
5. effects based on relevant and reasonable expressed assumptions?	Y	CHP. 5	
6. have adequate supporting data to support its contribution to noise/land use compatibility?	Y	CHP. 5	
C. Analysis appears to support program standards set forth in 150.35(b) and B150.5?	Y	CHP. 5/Appendix C	

AIRPORT NAME SAN ANTONIO INTERNATIONAL AIRPORT REVIEWER _____

	Yes/No/NA	Page No/Other Reference	Notes/Comments
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?	Y	SECTION 5-4,5-3	
2. use restriction coordinated with APP-600 prior to making determination on start of 180-days?	___	_____	
E. Do the following also meet Part 150 analytical standards:			
1. formal recommendations which continue existing practices?	Y	CHP. 5	E A C H ELEMENT
2. new recommendations or changes proposed at end of Part 150 process?	Y	CHP. 5	E A C H ELEMENT
F. Documentation indicates how recommendations may change previously adopted plans?	N/A	_____	
G. Documentation also:			
1. identifies agencies which are responsible for implementing each recommendation?	Y	P. 112	
2. indicates whether those agencies have agreed to implement?	N	_____	
3. indicates essential government actions necessary to implement recommendations?	Y	CHP. 6	
H. Timeframe:			
1. includes agreed-upon schedule to implement alternatives?	Y	CHP. 6	
2. indicates period covered by the program?	Y	P. 105	

I. Funding/Costs:		
1. includes costs to implement alternatives?	Y	SECTION 6-3
2. includes anticipated funding sources?	Y	SECTION 6-3
VI. PROGRAM REVISION: [150.23(e)(9)] Supporting documentation includes provision for revision ?	___	_____

Issued in Washington, APP-600, March 1989

APPENDIX C

NOISE MONITORING PROGRAM

Appendix C: Noise Monitoring Program

C-1: Purpose

To further assess the validity of the computer modeled noise contours for 1987 conditions, a supplemental noise measurement program was conducted from February 12, 1989 - March 8, 1989.

C-2: Equipment

The instruments used in this project were M-28 Noise Logging Dosimeters manufactured by Quest Electronics. These dosimeters are microcomputer-based sound analyzers capable of accumulating continuous sound level measurements for up to 120 hours. The data collected can then be transferred to a computer or printer.

C-3: Methodology

Eleven sites were selected for noise monitoring for a period of 7-14 days each. At each site the noise monitor was calibrated both before and after measurement to assure data continuity. The equipment at each monitoring site was identically programmed to accumulate overall noise levels as well as noise associated solely with the exceedences of a selected threshold of 50dB. All monitors were programmed to provide hour-by-hour reports of average Ldn noise levels for both overall (Ldn) and threshold-exceeding (Ldn(+)) conditions, as well as the minimum noise level recorded during each hour.

The instruments were set according to the following parameters:

- "A" weighted scale
- 50 dB range (corresponding to a peak reading range of 98-148 dB)
- 3 dB exchange rate
- zero threshold (corresponding to a peak range of 98-148 dB)
- Ldn - ON
- 24-hour clock (for purposes of Ldn calculation)
- Time constant - FAST (corresponds tp a 0.125 second time constant for maximum and average readings)
- Daily calibration level - 110+ 1.0 dB

While there is no end to the number of locations available for monitoring, the selected sites were chosen based upon the criteria listed below to provide a representative sampling of the noise levels associated with aircraft departures and arrivals. Xeroxed photographs of the monitor locations are presented in the final pages of this appendix.

- A location in or near areas from which complaints about aircraft noise have been received, or where there are concentrations of people exposed to numerous aircraft overflights.

- All locations should be free from obstructions between the noise dosimeter and the path of overhead aircraft.

- A location within the 75 Ldn contour and under the area of associated flight tracks.

- A location within the 65 Ldn contour and under the area of associated flight tracks.

- A location considered to be a sensitive land use as described by FAR Part 150.

- A location which would provide access to the study team on a 24-hour basis.

- A location considered to be safe and secure when equipment was unattended.

- Ambient level locations should be in residential areas outside of the computed 65 Ldn contour.

The following figure depicts the site locations as well as the computer generated Ldn contours.

SITE 5D
FLORAL WAY

SITE 1
RINEER HYDRAULICS

SITE 2
STARCREST ROAD

SITE 5C
WAYWARD

65 Ldn

70 Ldn

75 Ldn

SITE 5A
CHULA VISTA CENTER

SITE 3B
ST. PIUS X SCHOOL

SITE 4A
KRUEGAR SCHOOL

SITE 3A
NORTHWOOD SCHOOL

SITE 5B
N. NEW BRAUNFELS

SITE 4B
WILSHIRE SCHOOL

HILL COUNTRY VILLAGE

CASTLE HILLS

WINDCREST

TERRELL HILLS

SAN ANTONIO INTERNATIONAL AIRPORT

N

Scale
1"= 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

NOISE MONITORING SYSTEM

Table C-1

NOISE MEASUREMENT SUMMARY
SAN ANTONIO INTERNATIONAL AIRPORT

DATE	MONITORING SITES: Ldn VALUES									
(1989)	1	2	3A	3B	4A	4B	5A	5B	5C	5D
FEBRUARY:										
13	75.1	73.9	75.4		64.4		66.2			
14	76.4	76.5	69.9		65.2		67.7			
17	75.2	83.4	60.8		63.9					
18	72.4	78.7	70.5				65.1			
19	75.2	72.9	73.0		69.1		69.7			
21	74.9	78.1		66.9		69.3	71.8			
22	76.8	79.4		70.2		66.4	65.5			
23	73.7	77.5		74.3		67.8	71.1			
24	74.1	78.2		73.5		67.8	62.9			
25	72.2	80.4		72.8	72.3	65.9				
26	73.9	76.3		73.2		67.0				
27	75.5	84.1		72.8		68.5	74.0			
28								62.2	61.7	64.5
MARCH:										
1	77.1	81.5	67.7				73.7			
2	68.5	81.0	72.7		65.6		66.4			
8					65.8					
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
AVERAGE	74.36	78.71	70.00	71.96	66.61	67.53	68.55	62.20	61.70	64.50
INM*	73.00	70.00	75.00	75.00	67.00	67.00	64.00	--	--	--
VARIANCE	1.36	8.71	-5.00	-3.04	-0.39	0.53	4.55	--	--	--

SITE LOCATIONS:

1 - RINEER HYDRAULICS: 331 BREESPORT
2 - AIRPORT PROPERTY: STARCREST ROAD
3A - NORTHWOOD ELEMENTARY: 519 PIKE
3B - ST.PIUS X: 3303 URBAN CREST
4A - KRUEGAR MIDDLE SCHOOL: 438 LANARK
4B - WILSHIRE ELEMENTARY: 66523 CASCADE
5A - CHULA VISTA CENTER: CHULIE DRIVE
5B - RESIDENCE (AMBIENT LEVELS): N. NEW BRAUNFELS
5C - RESIDENCE (AMBIENT LEVELS): WAYWARD
5D - RESIDENCE (AMBIENT LEVELS): FLORAL WAY

* Estimated from the 1988 contour map.

SAN ANTONIO NOISE MONITORING
WEATHER DATA SUMMARY

FEBRUARY	MAX TEMP	MIN TEMP	WINDS(AVG) DIRECTION	WINDS(AVG) SPEED(KNOTS)	TOTAL SUNSHINE(HOURS)	CHARACTER OF DAY
13	81	67	S	18	5.3	OVERCAST/BROKEN
14	79	66	SE	22	.5	OVERCAST
17	49	47	N	14	0.0	OVERCAST/BROKEN
18	50	45	NE	15	0.0	OVERCAST
19	54	44	S	11	0.0	OVERCAST
21	63	42	N	22	8.43	BROKEN/OVC/CLEAR
22	68	36	N	17	11.35	CLEAR
23	59	36	S	13	11.38	CLEAR
24	65	38	SE	15	4.55	OVC/BROKEN/OVC
25	77	56	S	18	6.38	OVERCAST/CLEAR
26	85	49	S	17	10.88	BROKEN/CLEAR
27	82	50	N	19	9.11	CLEAR/BRKN/SCATTERED
28	52	47	NE	15	0.0	OVERCAST
MARCH						
1	57	47	NE	14	0.0	OVERCAST
2	65	51	SE	11	0.0	OVERCAST
8	66	32	E	9	11.76	CLEAR
	--	--		--	-----	
AVERAGE:	65.75	47.06		15	4.97	

AVG WIND DIRECTION

S = 5 DAYS(13,19,23,25,26)
N = 4 DAYS(17,21,22,27)
NE = 3 DAYS(18,28,1)
SE = 3 DAYS(14,24,2)
E = 1 DAY (8)

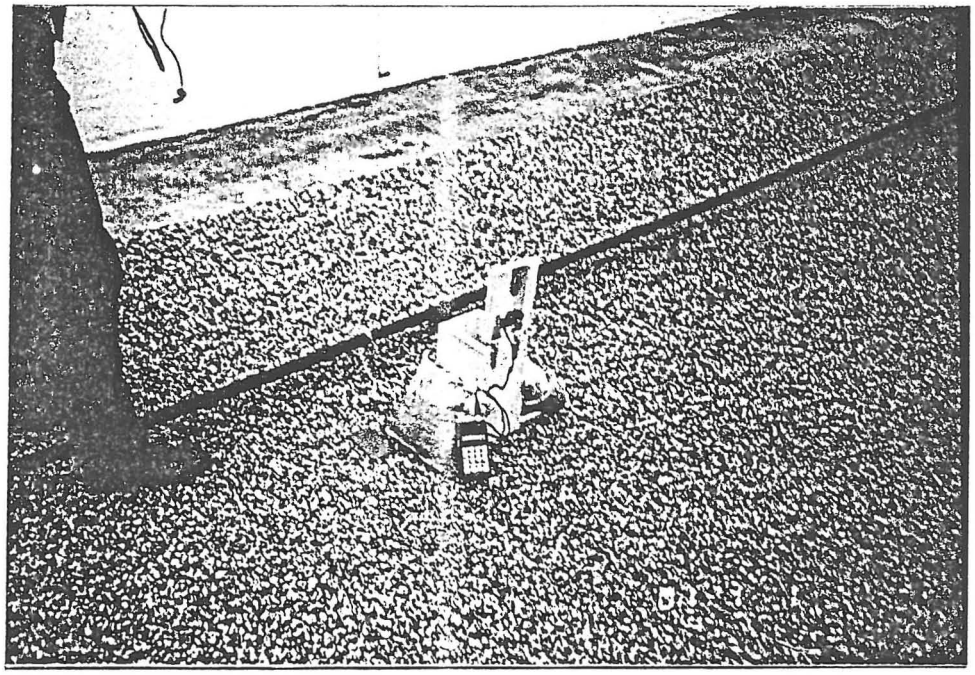
Table C-2

SAN ANTONIO INTERNATIONAL AIRPORT

NOISE MONITORING PHOTOGRAPHY LOG

PHOTOGRAPHY LOG

Date
March 20, 1989

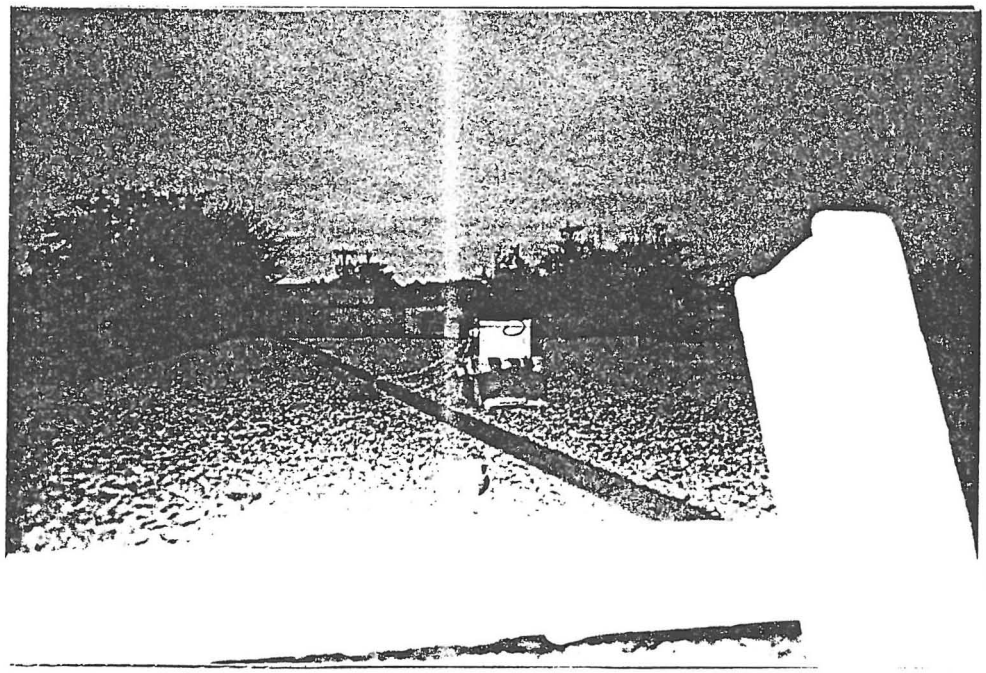


Site **No.** --

Photo No. 1

Description

(See Photo Log Index)



Site **No.** 1

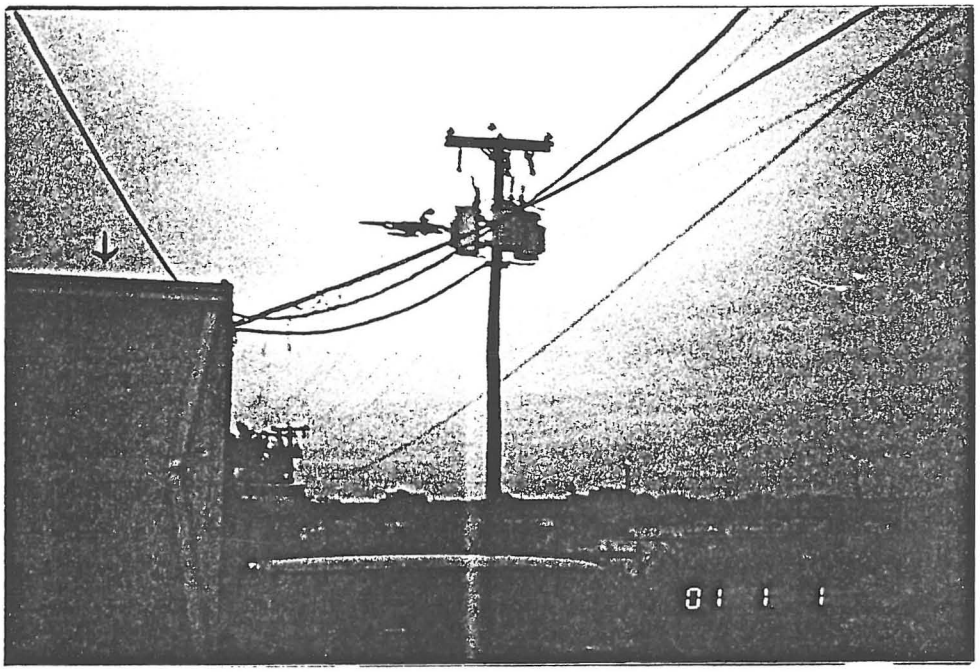
Photo No. 2

Description

(See Photo Log Index)

PHOTOGRAPHY LOG

Date
March 20, 1989



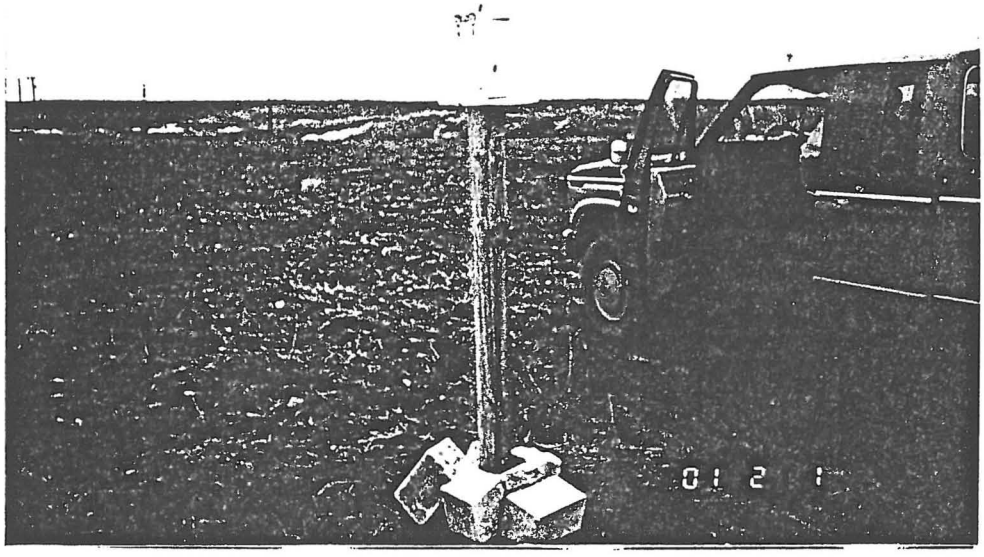
Site **No.** 1

Photo No. 3

Description

(See Photo Log Index)

Dosimeter located on near corner edge of building where indicated by arrow



Site **No.** 2

Photo No. 4

Description

(See Photo Log Index)

PHOTOGRAPHY LOG

Date
March 20, 1989

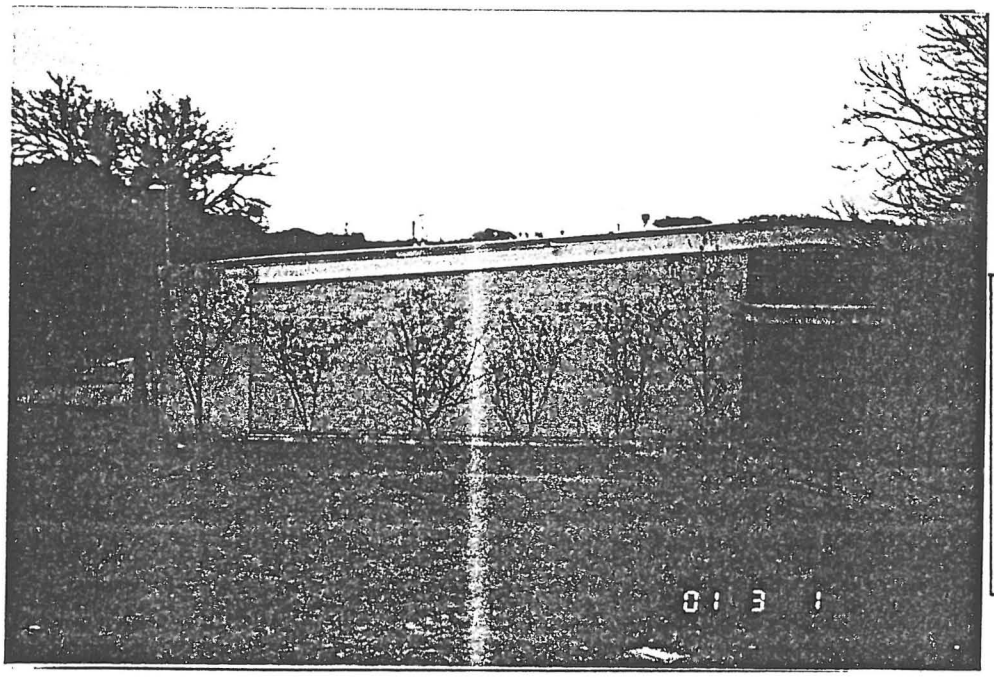
Site **No.** 3(a)

Photo No. 5

Description

(See Photo Log Index)

Dosimeter secured to base of antenna



Site **No.** 3(b)

Photo No. 6

Description

(See Photo Log Index)

Dosimeter secured to base of antenna

PHOTOGRAPHY LOG

Date
March 20, 1989

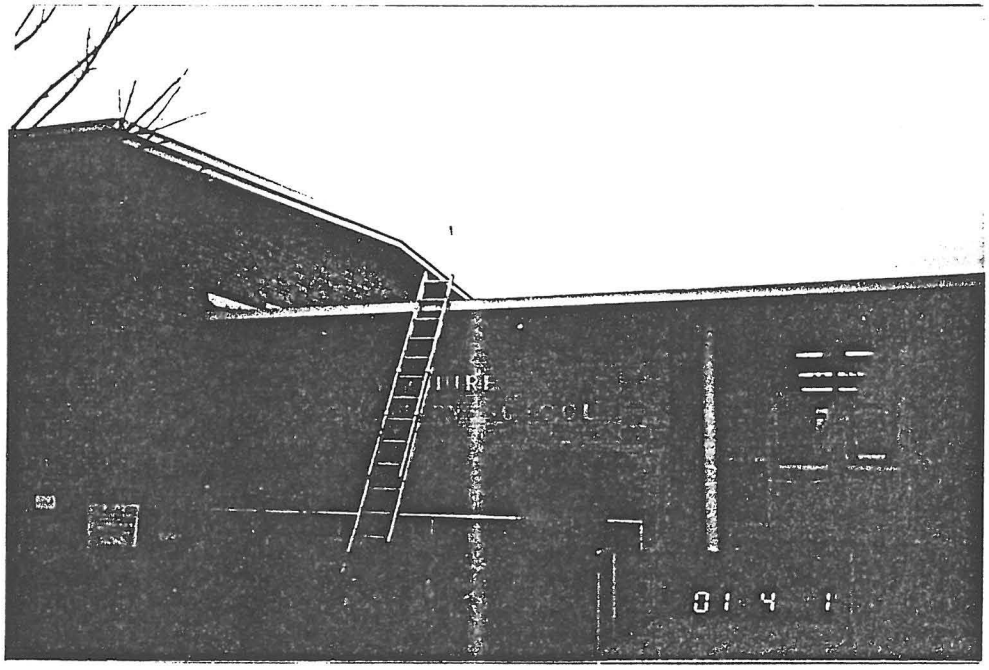
Site **No.** 4(a)

Photo No. 7

Description

(See Photo Log Index)

Dosimeter located on near edge of gymnasium as indicated by arrow



Site **No.** 4(b)

Photo No. 8

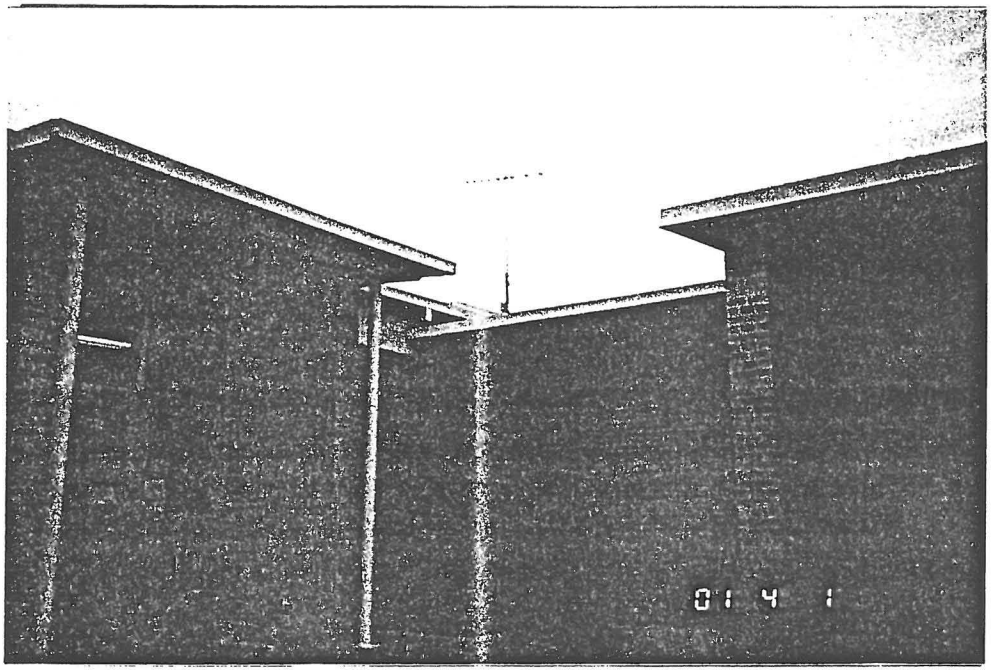
Description

(See Photo Log Index)

Dosimeter secured to base of antenna as seen in Photo No. 9

PHOTOGRAPHY LOG

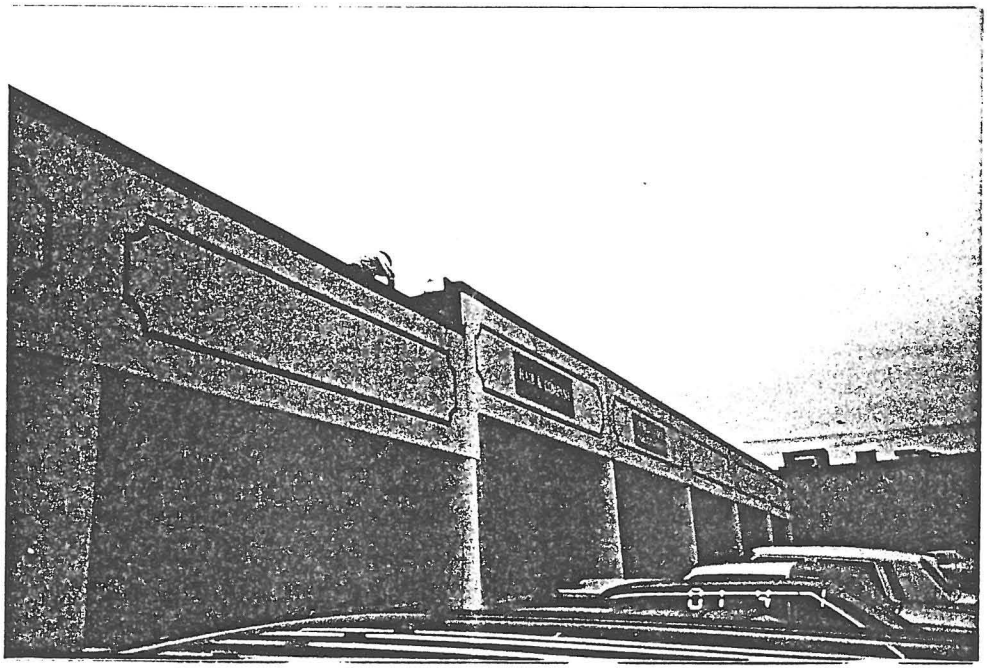
Date
March 20, 1989



Site **No.** 4(b)

Photo No. 9

Description
(See Photo Log Index)



Site **No.** 5

Photo No. 10

Description
(See Photo Log Index)

Photo Log Index

Photo Number	Site #	Site Name	Description
1	-----	--------	M-28 Noise-Logging Dosimeter
2,3	1	Rineer Hydraulics	Dosimeter was placed on top of a one-story building, directly below the flight path of incoming airplanes. No obstructions between the dosimeter and noise path of airplanes overhead.
4	2	Starcrest Road	Dosimeter positioned atop a 6' post in an open field. No shrubs or trees obstructing overhead noise path from aircraft.
5	3(a)	Northwood Elementary	Dosimeter positioned on roof of school cafeteria, which was the tallest building in the area. No obstructions between the dosimeter and noise path from aircraft overhead.
6	3(b)	St. Pius X	Dosimeter positioned on roof of school. No obstructions between dosimeter and noise path of aircraft overheaad.
7	4(a)	Krueger Middle School	Dosimeter placed on gymnasium roof. Highest building in the area. No obstructions between dosimeter and noise path of aircraft overhead.

8,9	4(b)	Wilshire Elementary	School is set in a valley; dosimeter was placed on the cafeteria roof, which was the highest point at the school. No obstructions to noise path of airplanes flying directly overhead, but there could be partial obstructions of noise generated at an angle due to surrounding trees.
10	5	Chula Vista Center	Dosimeter was placed on front left corner of roof above the 'Hair and Company' building. No obstructions between dosimeter and the noise path of aircraft overhead.

No pictures of private residences were taken, but a general description of where they were placed follows:

Residence Number	Description
1	Dosimeter was placed on balcony of top floor (3rd floor) apartment. Partial obstruction of noise path coming down at an angle due to apartment building.
2 and 3	Dosimeter was placed in the center of the backyard on the top of an 18" tripod. No obstruction to overhead noise path from airplanes; partial obstruction to noise coming down at an angle due to surrounding homes and trees.

APPENDIX D

SENSITIVE SITES: CHURCHES

Appendix D: Sensitive Sites

A review was done to determine if any additional sensitive sites such as churches, auditoriums, or cultural activity sites exist within the 65-75 Ldn noise contours. The investigation revealed that no auditoriums or cultural activity sites exist within the contours. However, the following eight churches were found within the 65-75 Ldn contours.

- St. Pius X Church
- St. Thomas More Catholic Church
- MacArthur Park Church of God
- MacArthur Park Lutheran Church
- Bethel Memorial Lutheran Church
- Coker United Methodist Church
- Eisenhauer Road Baptist Church
- Alliance Bible Church

The following page contains a graphic which depicts the existing Ldn contours and the location of each church.

According to the Land Use Guidelines of FAR Part 150, churches are generally compatible, however measures to achieve a noise level reduction (NLR) of 25 or 30 dB must be incorporated into the design and construction of a new structure.

CHURCHES

HILL COUNTRY VILLAGE

COKER UNITED METHODIST CHURCH

SAN ANTONIO INTERNATIONAL AIRPORT

65 Ldn

70 Ldn

75 Ldn

MACARTHUR PARK LUTHERAN CHURCH

MACARTHUR PARK CHURCH OF GOD

ALLIANCE BIBLE CHURCH

EISENHAUER ROAD BAPTIST CHURCH

ST. PIUS X CHURCH

BETHEL MEMORIAL LUTHERAN CHURCH

ST. THOMAS MORE CATHOLIC CHURCH

CASTLE HILLS

TERRELL HILLS

WINDCREST

McALLISTER PARK

NORTHERN HILLS GOLF COURSE (PRIVATE)

OLMOS BASIN MUNICIPAL GOLF COURSE

VIRGINIA BLOSSOM ATHLETIC CENTER

LADYBIRD JOHNSON PARK

FRIESENHAHN PARK

JAMES PARK

N

Scale

1"= 4,251'

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Noise Exposure Map

SENSITIVE SITES CHURCHES

1987 NOISE CONTOURS

ATTACHMENT I
OF RESOLUTION NO. 90-54-65
DATE CI 12/13/90

SAN ANTONIO INTERNATIONAL AIRPORT

FAR Part 150 Noise Compatibility Study

Sponsored by:
CITY OF SAN ANTONIO, TEXAS
Department of Aviation

VOLUME II

TransPlan

F.A.R. PART 150 STUDY

NOISE EXPOSURE MAPS/
NOISE COMPATIBILITY PROGRAM

for

SAN ANTONIO INTERNATIONAL AIRPORT

VOLUME II

Prepared By

TRANSPLAN

February 1990

APPENDIX E

STUDY CONSULTATION

APPENDIX E: STUDY CONSULTATION

This appendix documents the consultation and public participation requirements of Federal Aviation Regulation Part 150. FAR Part 150.21(b) requires a narrative description of the consultation accomplished on the Noise Exposure Maps (NEMs) and Noise Compatibility Program (NCP) and the opportunities afforded the public to review and comment during the development of the maps and NCP. The documentation that follows identifies all parties consulted during the development and preparation of the San Antonio International Airport Part 150 NEMs and NCP.

A Technical Advisory Committee (TAC), and a Community Advisory Committee (CAC) were formed at the commencement of the San Antonio Part 150 Study. The TAC consisted of FAA officials, state and public officials, and representatives of fixed based operators, airlines, airline pilots, business aviation, general aviation, and other affected airport tenents. The CAC consisted of local community group representatives, elected officials and military representatives. Due to the large number of groups, each community group was invited to appoint a single spokesperson to express the views of its members.

The following list indicates meeting dates, and briefly describes topics discussed at all committee meetings which took place during the course of the FAR Part 150 preparation and development:

DATE	COMMITTEE	TOPIC
12-10-87	City Council	Resolution supporting FAR Part 36 Noise Standards, to encourage rapid transition to Stage 3 Aircraft.
12-15-87	TAC/CAC	Forecasts of aviation and existing noise contours.
3-22-88	TAC/CAC	Five-year future contours, sensitive land uses, open discussion of abatement options.
5-31-88	TAC/CAC	Review of previous meetings, discussion of noise monitoring for confimation of computer generated noise contours, presentation of noise abatement alternatives for use in NCP.

9-28-88	TAC/CAC	Noise abatement alternatives, recommendation and elimination of alternatives, thrust cutback, noise monitoring for INM validation.
8-15-89	TAC/CAC	Noise monitoring results, Noise Exposure Maps, and Noise Compatibility Program.

All committee meeting minutes are included in this appendix. Written comments received during the development of the NEMs and NCP are on file with the FAA region office and included in Appendix F.

In response to the resolution supporting FAR Part 36, adopted by the San Antonio City Council, several airlines submitted letters describing their efforts and future plans to acquire and operate more Stage 3 aircraft. Their responses are also included as part of this appendix.

MINUTES
SAT MASTER PLAN/PART 150 STUDY

Tuesday, December 15, 1987
San Antonio International Airport

10:00 a.m. - Call to order by Michael Kutchins.

- Tom Chastain explains purpose of meeting.

- Committee members introduce themselves.

- Kutchins and Chastain briefly discuss immediate unilateral actions outlined in Councilman Labatt's report to Mayor Cisneros. Copies of report distributed.

- Committee representation reviewed. Kutchins explains that a request for a local FBO representative was sent to the national organization. Don Harris emphasizes the importance of FBO representation.

- Bill Czervinske expresses concern that Dee Howard, NBAA (Skip Reed) and the helicopter group are not represented. Allan A'Hara discusses the procedures taken to identify various representatives and explains the difficulty locating a helicopter association. He also mentions that Skip Reed was invited to serve on the committee.

- Chastain agrees to locate a representative for the FBO's, other airport users and the helicopter group.

- Czervinske mentions the noise complaint received by Bob Walters and asks if he should serve on the committee. Kutchins explains that Walters was invited to attend.

- Chastain provides background information on the Airport Master Plan Update and the Far Part 150 Study.

- The first two chapters of the Master Plan were explained, including:

1. The Inventory - existing airport facilities (runways, terminals, parking, etc.)

2. Twenty-Year Forecasts

Chastain reviews MSA Registered Aircraft Forecasts and factors influencing general aviation, including:

a) Geometric trend line based on past 15 years;

b) Aircraft ownership ratios per capita basis; and

c) Regression line developed from 5-year period (1981-1986). This chosen method resulted in approximately 1,600 registered aircraft -- a modest growth rate.

forecasts for based aircraft were reviewed. Based on the past 15 years, the forecast took into account the availability of airports (particularly Stinson), pricing, etc. TransPlan will use a figure of about 300 based aircraft/year for plan development.

Chastain reviews the factors influencing the number of enplaned passengers. International currently accommodate about 2.3 million passengers.

a) 15-Year Trend Line;

b) Socioeconomic Growth -- population, economy, etc.; (5.3 million, historical basis)

c) National Trend Line -- produced forecast of 4.4 million.

Additional factors that may affect the socioeconomic growth line:

a) Improved Air Service;

b) Opening of Sea world, and

c) Other Tourist-Related Industries.

Based on the socioeconomic trend line, TransPlan will use a figure of 5.8 million enplanements by the year 2007.

Airport activity was reviewed. General aviation numbered 120,000 - 130,000 operations/year.

Chastain reviews air carrier operations.

- Bill Czervinske mentions other factors influencing based aircraft forecasts, including small airport availability, fuel costs, insurance, A-Flight program, tax base, property values, mexico activity, etc. He also discusses air space demand.

- Allan A'Hara explains the 150 Study and reviews information researched and used to develop current noise map, including:

  1. Aircraft Operations;

  2. Aircraft Mix;

  3. Flight Tracks; and

  4. Time of Operation/Stage Length.

- The committee discusses that military activity (landing/departure) is only a small percentage of the aircraft operating at International. Major Landstrom discusses night operations.

- A'Hara reviews the flight tracks and Ldn levels (89% of departures off 12 R).

- Czervinske expresses concern that the northeast neighborhoods have not been included.

- A'Hara shows the noise contours as they relate to the flight tracks and explains that the contours were run for 65, 70 and 75 Ldn levels. The departure flows were also analyzed.

- Czervinske questions the amount of departures off runway 21.

- A larger-scale contour was reviewed. Kutchins explains that this contour is common for airports of this size, etc.

- A'Hara explains that a five-year contour will

be developed. Roland Lozano agrees to work with TransPlan to provide the latest census information.

- Kutchins discusses Stone Ridge, a neighborhood recently developed near the airport.

- A'Hara explains that the next step is to develop the 1992 noise contour map which will be presented at the next meeting.

- Chastain asks Harris if the FAA can take an early look at the forecasts.

- The committee discusses each of the 14 noise control actions developed from the previous meeting.

- Flight patterns, vertical separation, military departure profiles, runway utilization, use of runways 3 and 21, and flight flexibility during night hours (after 9 p.m.) were discussed. Czervinske explains that they are currently taking advantage of these lighter hours, and that volume/safety and mission impact must be considered.

- Chastain comments that a more complex flight teach map, which addresses runway utilization and distribution, will be developed.

- Randolph's weekend flight schedules were discussed. It was noted that Randolph is particularly active on Saturday. Czervinske expresses that there is more flexibility on the weekend, but they are currently taking advantage of this lighter schedule.

- Helicopter flight patterns and the validation of contours by using monitoring equipment were discussed.

- Chastain mentions the possibility of running sensitivity checks and explains that this test will help tell how much has to be redistributed before the changes have an effect.

- To help indicate the complexity of flight redistribution, Chastain asked Czervinske to provide TransPlan with the changes they made when flight traffic was increased on Runway 3/21.

- The next technical advisory committee meeting was tentatively scheduled for late January.

- Czervinske asks how individual complainers -- those not associated with any association -- will be informed about the studies. It was explained that a public meeting will be held where individuals can voice their concerns.

- Committee members request that information be distributed prior to the meeting to allow for preparation.

- Closing remarks.

- Meeting adjourned.

Technical Advisory Committee Meeting
Participants
December 15, 1987

1. Mike Kutchins
   Department of Aviation
   City of San Antonio

2. Carl B. Baber
   Department of Aviation
   9800 Airport Blvd.
   San Antonio, Texas 78216
   (512) 821-3450

3. Vic Nartz
   Air Transport Association
   4401 Main St. N., Room 112
   Ft. Worth, Texas 76106
   (819) 626-1122

4. Don Harris
   Federal Aviation Administration
   4400 Blue Mound Rd.
   Ft. Worth, Texas 76193-0611
   (817) 624-5609

5. Charles B. Taylor
   Flight Standard District Office #68
   10100 Reunion Place, Ste. 200
   San Antonio, Texas 78216
   (512) 341-4371

6. W. L. Czervinske
   FAA Air Traffic Control
   9434 Airport Blvd.
   San Antonio, Texas 78216
   (512) 824-0945-2511

7. Dan Gudas
   Department of Aviation
   9800 Airport Blvd.
   San Antonio, Texas 78216
   (512) 821-3450

8. Roland Lozano
   Director, Planning Department
   P.O. Box 9066
   San Antonio, Texas 78285
   (512) 299-7870

Technical Advisory Committee Meeting
Participants
December 15, 1987

9. Ed Sanii
Day & Zimmermann, Inc.
9700 Airport Blvd.
San Antonio, Texas 78216
(512) 828-4964

10. Col. Les Hobgood
Commander, Kelly Air Force Base
2851 ABG-CC
Kelly AFB, Texas 78241
(512) 925-6884

11. Col. Wallis D. Cone, Jr.
Deputy Commander for Operations
Randolph AFB, Texas 78150
(512) 661-2521

12. Maj. Robert E. Landstrom
Martindale AAF
5500 I.H. 10 East
San Antonio, Texas 78219
(512) 652-5128

13. Major Ken Miller
Ft. Sam Houston
c/o AFZG-PTM-AV
Ft. Sam Houston, Texas 78234
(512) 652-5128

14. Allan A'Hara
TransPlan, Inc.

15. Tom Chastain
TransPlan, Inc.

SAN ANTONIO INTERNATIONAL AIRPORT
MASTER PLAN UPDATE/FAR PART 150 STUDY

Community Advisory Committee Meeting
December 15, 1987
7:00 P.M.

AGENDA

- Introduction
- Project Status
- Existing Airport Facilities
- Forecasts of Aviation Activity
- Existing Noise Contours
- Questions and Discussion

Minutes

SAT MASTER PLAN/PART 150 STUDY
Community Advisory Committee Meeting

Tuesday, December 15, 1987
Jewish Community Center

7:00 p.m. - Call to order by Michael Kutchins.

- Kutchins welcomes committee members and introduces Dick Hatch, Carl Baber, Don Harris, Allan A'Hara, Tom Chastain.

- Chastain provides background information on the Airport Master Plan Update and the Far Part 150 Study. Meeting agenda disseminated.

- Chastain reviews the thirteen unilateral actions detailed in Labatt's report to Mayor Cisneros. Copies of report disseminated.

- After discussion, the committee agrees that 4:00 p.m. is the best time for the next community advisory meeting.

- Ida Kenny expresses concern that a northeast neighborhood was not invited to serve on the committee. Kenny agrees to provide the name of the neighborhood representative to the aviation department.

- The first two chapters of the Master Plan were explained, including:

  1. The Inventory - existing airport facilities (runways, terminals, parking, etc.).

     - Kenny expresses concern about the lack of internal transportation (electric carts) and the lack of 15-minute parking near the terminal entrance.

     - Chastain refers her concerns to Kutchins, Baber and Hatch, and explains that walking and transporter devices will be addressed in the study.

  2. Twenty-Year Forecasts

     Chastain reviews factors influencing number of enplaned passengers:

a) Improved Air Service,

b) Opening of Sea World, and

c) Other Tourist-Related Industries.

Chastain explains forecasts for airport operations and the three categories analyzed:

1. Military Aircraft;

2. General Aviation Aircraft; and

3. Commercial Air Carriers.

- Allan A'Hara explains the Part 150 Study and reviews information researched and used to develop current noise map, including:

  1. Basic Demand;

  2. Aircraft Operations; and

  3. Aircraft Mix.

  A'Hara also discusses the time of operation and the stage length.

- Using visuals, A'Hara reviews approach and departure flight tracks and Ldn noise contours for the 1986/1987 (existing) conditions.

- A'Hara shows the noise contours as they relate to the flight tracks.

- Phil Fryberger expresses concern about validating the noise contours and suggests what the City use monitoring equipment to verify.

- A'Hara explains that the next step is to develop the 1992 noise contour map which will be presented at the next meeting.

- Kutchins explains that two councilmembers will serve on the committee. Pat Wells asks if the City will pay for the equipment used to validate the contour. The aviation department will research costs and benefits.

- Fryberger requests that a schedule milestone chart be presented at the next meeting which will be held in late January.

- Fryberger discusses mandatory regulations and requests that Don Harris provide him with a list of U.S. airports using mandatory procedures. Harris discusses problems associated with mandatory programs and agrees to research.

- Fryberger requests that Mayor Cisneros make a proclamation that San Antonio is a "Noise Sensitive" City. Harris encourages him to take the request to the city.

- Fryberger asks whether a City representative can speak to the Oak Park/Northwood Association. Harris encourages Fryberger to ask his members to attend the public meeting. Fryberger withdraws his request.

- Meeting adjourned.

Community Advisory Committee Meeting
Participants
December 15, 1987

1. Ida Kenny
   Shearer Hills Ridgeview Neighborhood Assn.
   7054 McCullough
   San Antonio, Texas 78216
   (512) 822-5256

2. Pat Wells
   Hidden Forest Homeowners Assn.
   15602 Partridge Trail
   San Antonio, Texas 78232
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3. Philip H. Fryberger
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9. Allan A'Hara
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10. Mike Kutchins
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San Antonio International Airport
Part 150 Study
Technical Advisory Committee Meeting

Tuesday, March 22, 1988

10:00 a.m.

- Allan A'Hara presents brief overview of the Part 150 Study and explains that the baseline noise contour analysis has been completed.

- A'Hara explains that the Air-Route Tracking System data (ART) was used in the analysis. The data from this system confirmed the flight tracks being used for the analysis.

- Although presented at the December 15 meeting, A'Hara reviews the 1987 noise contour map--which has been refined slightly to include helicopter traffic -- and discusses the 65, 70 and 75 Ldn levels.

- A'Hara presents the 1992 contour map and explains that the 5-year contour is almost identical to the existing noise condition. This situation is the result of an increase in aircraft activity which has been offset by an increase in the utilization of stage three aircraft.

- A'Hara explains that 1978 and the 2007 noise contour maps were run for comparison purposes only. (They are not required by FAA). Basically, the noise level was the same 10 years ago because of a similar offsetting relationship between increased activity and increased use in stage three aircraft. The noise contour shrinks dramatically (from 9.5 miles to 2 square miles) in the 20-year forecast period -- a result of projecting 100 percent utilization of stage three aircraft.

- The committee reviews the impact analysis on acreages (residential, commercial, industrial, special service and undeveloped/open space park land). A'Hara explains that the land use map was developed from the City's land use plan, aerial photography, and street maps. Some additional spot checking of areas in the contour will also be conducted by TransPlan. By converting acreage impacted, TransPlan

calculates that approximately 37,000 persons are affected. This impact analysis will also be conducted for the 1992 scenario.

- Byron Reed asks about the number of persons affected in the 2007 scenario. A'Hara explains that this detailed analysis was not run for the future or historic case (scenarios run for comparison only).

- A'Hara presents the sensitive land uses located in the contour area and explains that schools and health care facilities (nursing homes and hospitals) were identified. Approximately six schools and two nursing homes are located in the contour area. One hospital is located nearby. TransPlan will consider these sensitive land uses when developing the noise abatement programs.

- A'Hara discusses the next step of the study--the alternatives analysis. Although the analysis will review steps such as noise barriers and ordinances, TransPlan is concerned today with those alternatives requiring the computer noise model.

- Vic Nartz questions the accuracy of the contours and asks why the 70 and 75 Ldn contours do not follow the 65 area in the 2007 forecast. Tom Chastain explains that a confirmation on the 2007 scenario will be conducted. He also explains that the benefit of using quieter aircraft is not actually perceived until the "noisier" aircraft is removed from the mix. Only when the "noisy" aircraft types are taken away will there be a dramatic decrease in the noise level. The contour is driven by the noisier aircraft.

- Nartz compares contours to those of John Wayne airport. Chastain explains that John Wayne airport may have a more balanced directional use and discusses the difference in take-off and departure noise. Chastain agrees to check the contours. A'Hara also explains that the number of stage one aircraft in 1978 was minimal and was included with stage two.

- Bill Cervinske suggests that the specific impact be analyzed when each runway is in use individually. Chastain explains that this would mislead the public and would not be truly representative as in the cumulative

impact. Kutchins explains that TransPlan is conducting the analysis according to FAA standards.

- Chastain discusses the abatement options which can be realistically accomplished by 1992. TransPlan proposes that sensitivity checks be run on the following five scenarios:

1. An increase in utilization on Runway 3/21 and a decrease on 12/30.

2. Result of 3/21 extension.

3. Alter aircraft takeoff profiles. Harris explains that the model incorporates a thrust cutback in the profile. He also asks about the results of the ARTS information. Chastain explains that a greater thrustcut-back procedure can be chosen. Harris asks how the INM 3.9 standard version compares to this model. Tom agrees to present both profiles. Byron Reed emphasizes impact on military. Harris expresses concern about safety and the standardization of procedures.

   Chastain comments that changes in flight patterns were reviewed and that no alternatives were available. Cervinske also expresses concern with the safety factor since conflicts would result. Kutchins suggests that such alternatives should be reviewed without prejudged ideas. Cervinske offers to demonstrate these conflicts by using the radar scope.

4. San Antonio replaces Stage two aircraft with stage three at rate greater than national average. (55 to 60 percent stage three in 1992 -- as compared to 43 percent).

   Harris explains that although noise levels could be taken at any time for any location, only annualized averages are required.

5. Lengthening of Runway 12L/30R (part of the Master Plan) -- shifting of some aircraft activity. Cervinske expresses concern about the tradeoff (delays, loss of activity, etc.) associated with this move. Chastain explains that there may be some benefit if they could release on 12L when arrivals are directed to 12R. Cervinske confirms that there could be some advantage if this departure scenario were

in place place.

- Major House asks if any thought has been given to the Microwave Landing System. Committee discusses the impact areas and need for 3- to 5-mile final.

- Notzen asks if the larger medical clinics (primarily outpatient) and day care centers were considered in the sensitivity land use impact. Harris explains that these facilities are not considered to be sensitive land uses. Notzen also asks whether St. Pius, St. Thomas, Cole High School and one church/school west of Sunset were included. A'Hara explains that St. Pius and Cole High School were considered and will be more clearly indicated. Notzen agrees to call Julie Bedell with the name of the school near Sunset. TransPlan agrees to research St. Thomas.

- Committee discusses the inclusion of day care centers. Harris explains that day care centers are not considered "sensitive." The amount of education provided is a key factor in determining sensitivity.

- Committee discusses the effect on contour if Runway 12L/30R is extended.

- Committee discusses the fair disclosure of information. Chastain explains that one purpose of the study is to provide information to the public.

- Colonel Cone expresses concern about increasing activity on Runway 3/21.

- Harris emphasizes again that it is best to take a look at all alternatives.

- Meeting adjourned.

Technical Advisory Committee Meeting
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Working Session #2
Tuesday, March 22, 1988

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San Antonio International Airport
PART 150 STUDY
Community Advisory Committee Meeting

Tuesday, March 22, 1988
Jewish Community Center

4:00 p.m. - Call to order by Michael Kutchins. Committee members introduce themselves.

- Tom Chastain presents brief overview of the Master Plan and the Part 150 studies. He also explains that the 1987 noise contour was presented at the last meeting.

- A'Hara explains that the baseline noise contour map has been established and that several other scenarios will be presented at this meeting.

- A'Hara presents the flight tracks and explains that Runway 12R/30L is the predominant runway (used 86 percent of the time). Factors influencing this level include weather, wind, navigation systems, surrounding air space characteristics, etc. A'Hara explains that the Air-Route Tracking data (ART) system was used in the analysis and confirmed the flight tracks being used.

- Since several of the committee members are new, A'Hara defines noise contour and Ldn noise levels. He also explains that the existing 1987 noise contour -- presented at the December 15 meeting-- has been refined slightly. (The contour changed slightly when helicopter tracks were included).

- A'Hara presents the 1992 noise contour map and explains that the 5-year contour is almost identical to the existing noise condition (only one-tenth of a square mile smaller). This situation is the result of an increase in aircraft activity which is offset by an increase in the utilization of Stage 3 aircraft.

- A'Hara presents the 1978 and 2007 noise contours and explains that these were run for comparison purposes only. Basically, the noise level was the same 10 years ago because of a similar offsetting relationship between increased activity and increased use in Stage 3 aircraft.

- Phil Fryberger objects to the wording that there has been no increase in noise.

- A'Hara discusses the 2007 noise contour. The noise contour shrinks significantly (from 9 - 10 square miles to 2 square miles) -- a result of projecting 100 percent utilization of Stage 3 aircraft. A'Hara explains that the noise contour is driven by the "noisiest" aircraft. The activity level projected is the forecasted amount used in the Master Plan.

- A'Hara presents the noise impact analysis for the 1987 and 1992 noise contours -- an analysis which considers the impact on land uses by acres (residential, commercial, industrial, special service and undeveloped/open spaces). A'Hara explains that the land use map was developed from the City's land use plan, aerial photography and field checks. Some additional spot checking of areas in the contour will also be conducted by TransPlan. This analysis will allow TransPlan to see the number of persons affected and the benefit that can be derived from noise abatement alternatives.

- Fryberger asks why the noise impact map was not included in the handout. A'Hara explains that the map was not yet available at the time handouts were mailed.

- Ida Kenny points out that a large Catholic church/school (Blessed Sacrament) was omitted on the sensitivity land use map. TransPlan agrees to research.

- A'Hara presents the sensitive land uses located in the contour area. He also explains that schools and health care facilities (nursing homes and hospitals) were identified. TransPlan will consider these sensitive land uses when developing the noise abatement programs.

- Charles Stern, of the Crown Hill Homeowners Association, asks about the possibility of an Austin/San Antonio airport. Don Harris explains that the current service level cannot support a new facility. Stern also asks about the status of San Antonio International serving as a hub. Kutchins responds that San Antonio is not interested in serving as a hub. The focus is on improving all air service -- a matter of quality vs. quantity.

- A'Hara discusses the next step of the study--reviewing noise abatement alternatives. He explains that some alternatives require operational

as well as physical changes at the airport. These alternatives are the ones that require the noise computer model and a sensitivity check in order to gauge the effectiveness of each.

- Chastain provides background and status on the 14 points to be reviewed in the Part 150 study.

1. Establish current noise level -- completed and presented.

2. Address feasibility of moving the airport -- Harris conducted a feasibility study and it was determined that a move was not feasible.

3. Improve a reliever airports -- the City is committed to improvement at Stinson (a primary reliever).

4. Adhere to national noise abatement policies (FAR Part 136) -- already considered.

5. Address use of noise monitoring program on permanent basis -- will be conducted in more of a test form -- does not affect the noise contour.

6. Review actions in FAA circular 5020-1 noise abatement policies -- to be discussed.

7. Review special approach and departure paths -- to be discussed.

8. Review vertical flight profiles -- to be discussed.

9. Maintain safety procedures -- to be discussed.

10. Evaluate traffic at air bases on Saturday and Sunday -- to be discussed.

11. Address negative effects on some areas by changing weekend patterns -- to be discussed.

12. Validate noise contours by setting up monitoring equipment -- Councilman Thompson is directing this effort. Equipment under research.

13. Review helicopter routes -- already considered.

14. Review noise complaint data -- completed -- used as a basis for selecting the community committee.

- Fryberger asks if these 14 points have been distributed. Chastain explains they were handed out at the last meeting and that copies will be

made available.

- Chastain reviews actions in the AC 5020-1 which includes a number of operating changes. The next step of the study will look at changes which may impact the way the aircraft operate. One change deals with evaluating weekend traffic at the military bases. He also explains that air traffic control is very limited in changing routes. TransPlan has reviewed and has determined that routes cannot be changed without jeopardizing safety. TransPlan will look at varying operating modes -- moving some traffic (15 percent) from Runway 12/30 to Runway 3/21 -- to determine the community benefit.

- Kenny expresses opposition to moving any traffic to 3/21. Chastain explains that this run is necessary in order to determine if there is a benefit to the community as a whole.

- Chastain discusses the extension (500 - 1,000 feet) of Runway 3/21 and explains that this change will be run as a sensitivity check.

- Kutchins explains that in the spring (early May) Runway 12/30 will be closed for 30 days for the repair of a drainage pipe. Kenny comments that the extension of 3/21 is a costly project.

- Chastain explains that although profiles using the ARTs data have been used, TransPlan will run a few additional profiles using more dramatic thrust cut-back procedures.

- Fryberger asks about the FAA's internal argument regarding the effectiveness of 2-stage climb profile vs. high climb profile. Chastain explains that modest cut-back procedures are incorporated in the computer model, however, more dramatic uses will be reviewed. Fryberger requests clarification that these thrust cut-back operations are safe. Chastain explains that unsafe profiles will not be considered.

- Chastain discusses the fourth sensitivity check which will place San Antonio's use of Stage 3 aircraft at a rate higher than the national projection. Chastain explains that the noise contour is driven by the "noisier" aircraft. Fryberger points out that three types of aircraft flying out of International are not governed--military, foreign and business. Harris explains that business and military aircraft have to comply

under Part 36 and that foreign carriers fall within the guidelines of ICAO Annex 16.

- Chastain clarifies that only one part (air carrier) of total operations is expected to double by 2007. The total activity will increase approximately 50 percent.

- Stern questions the use of equipment used by airlines -- in many cases, a smaller aircraft could be used instead of a larger aircraft. Chastain explains that some airlines position their aircraft for operations the following day. He also explains that most often the larger aircraft are quieter.

- Chastain discusses the extension of 12L/30R -- a project included in the Master Plan. He also explains that the model will be run to measure the noise impact associated with this extension.

- Chastain asks for responses from the committee members. Fryberger discusses the FAA's airport noise control strategies which are currently used by 400 airports. He asks that these be reviewed. Fryberger also comments that the City is responsible for allowing growth in contour area. Chastain explains that the 14 items under consideration were derived from the FAA manual. Fryberger calls for action, but does not advocate an extension in TransPlan's scope of service.

- Marilyn Rose, of the Churchill Estates Homeowners Association, comments that the invitation to participate on the committee was sent to the association's bookkeeper and they had not been notified. She agrees to provide the new address to Julie Bedell. She also asks that background information be sent to her.

- Kenny asks about the drain being laid and asks why it cannot be run along the McAllister Freeway. Carl Baber addresses. Kenny compliments TransPlan's efforts.

- Stern compliments the thoroughness of the study. He also asks if TransPlan is considering only population growth or other factors such as Sea World's opening. Chastain explains that these factors were taken into account. Kutchins explains that they already have designs and specifications for a new terminal. Several ongoing proactive steps are underway to maximize the existing facility. He also discusses the status of Stinson which includes a $40-million development proposed

for the next several years.

- Fryberger comments that air carriers should have to pay a fee when flying Stage 2 aircraft and rewarded for bringing in more quiet aircraft. He also comments that the City should send out letters and copies of the ordinance (stating that the City applauds Stage 3 aircraft) to all CEO's of users.

- Committee agrees that the next meeting should be at 4:00 p.m.

- Meeting adjourned.

Community Advisory Committee Meeting
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Working Session #2
March 22, 1988

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Minutes

PART 150 STUDY

Tuesday, May 31, 1988
San Antonio International Airport

1:30 - Tom Chastain briefly explains the meeting agenda, including the presentation of the noise abatement alternatives.

- Allan A'Hara presents the six alternatives.

1. Thrust cut-back profile -- assumes 50 percent compliance rate. Results in a reduction in the noise contour from approximately 10 square miles to six square miles. Most significant reduction is experienced in the southeast.

2. Increase use of runway 3/21 -- assumes increase in traffic on 3/21 from eight percent to 20 percent. Results in only a slight reduction in the noise contour off 12/30 and significantly increases the contour off 3/21.

3. Extension of runway 3/21 -- assumes extension of 1,000 feet and increase in traffic to 20 percent on runway 3/21. Results in basically the same contour formed by the second alternative.

4. Extension of runway 12L/30R (parallel runways) -- assumes extension of 1,500 feet, the transfer of one-third of the traffic from 12R/30L and a staggered departure operation. Resulting contour is basically the same as the base case contour. This computer run also assumes turbo jet landings on runway 12L and only turbo jet takeoffs on runway 30R.

5. Extension of runway 12L/30R -- assumes one-third/two-third split and unrestricted use of 12L/30R. Overall noise impact area remains basically unchanged.

6. Greater percent of stage three aircraft -- assumes increase in the operation of stage three aircraft (operating at a 60 percent level instead of the national projection of 43 percent). Results in a reduction in the noise contour -- from approximately 10 square miles to eight square miles.

- A'Hara explains that alternatives one, two and six warrant further analysis. He introduces Henry Young.

- Young explains the sixth alternative and discusses noise perceptions and the fact that noise is driven by the "noisier" aircraft. He also explains the thrust cut-back profile, including the assumptions made and the specifics of operation.

- Young discusses the second alternative which increases the use of 3/21. He explains that the computer model does not take into account levels of perception.

- Committee discusses the variability and enforcement of the thrust cut-back procedure. TransPlan agrees to check the radar readings and the actual departures. TransPlan also agrees to supply Young's briefing memo on the profiles.

- TransPlan explains that the model is not sensitive to temperature or altitude. It is explained that monitoring equipment will be used to verify the contours.

- Committee discusses the projected influx of stage three aircraft. Although Burbank Airport operates 100 percent stage three, noise complaints are still received.

- TransPlan explains that safety will not be jeopardized and that the number of individuals affected will be closely studied. It is also explained that the noise situation requires long-term planning.

- Meeting adjourned.

PARTICIPANTS
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SAN ANTONIO INTERNATIONAL AIRPORT
May 31,1988

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Minutes

PART 150 STUDY
Community Advisory Committee Meeting

Tuesday, May 31, 1988
San Antonio International Airport

4:00 p.m. - Call to order by Tom Chastain. Committee members introduce themselves.

- Chastain reviews 14 points developed from October 23 working session.

- Background information provided on the 1992 noise contour and the airport's runway system.

- A'Hara gives brief overview on the six noise abatement alternatives which required use of the integrated noise model.

  1. The thrust cut-back profile -- assumes use by 50 percent of stage two aircraft. Noise contour reduced.

  2. Increase use of runway 3/21 -- assumes increase from eight percent to 20 percent. Contour off 12/30 remains basically the same. Contour off 3/21 enlarged significantly.

  3. Extension of runway 3/21 -- assumes 20 percent activity level on 3/21 and a 1,000-foot extension. Contour very similar to the one formed from the second alternative.

  4. Extension of runway 12L/30R (parallel runways) -- assumes extension of 1,500 feet and the transfer of approximately one-third of the traffic from 12R to 12L. Noise contour affected very litte.

  5. Extension of runway 12L/30R (unrestricted use) -- results in basically the same contour.

6. Greater percentage of stage three aircraft -- assumes San Antonio operates higher level -- 60 percent -- of stage three aircraft (higher than the projected national average of 43 percent). Noise contour was reduced.

- Noise contours discussed. Accuracy of information questioned.

- Henry Young explains the computer model and discusses the procedures involved with running the alternatives.

- The thrust cut-back plan, and its compatibility with the Randolph traffic, questioned and addressed.

- Young discusses stage three aircraft -- the rate of influx, noise generated (retrofitting of stage two aircraft), etc.

- Phil Fryberger questions the feasibility of some of the alternatives and requests immediate action on alternatives one and six. He also stresses the importance of providing incentives to the airlines/pilots as a way of encouraging the use of quieter aircraft.

- Committee discusses the noise impact on the community. TransPlan explains that the next step of the study will address this concern.

- TransPlan explains that several versions of aircraft types are in operation, and that it is difficult to distinguish the particular make of the plane. Most often, the newer versions are the quieter aircraft.

- Transplan explains that the pilot's options -- from runway to 1,000 feet -- are limited.

- Committee discusses the use of monitoring equipment. TransPlan explains that temporary equipment will be in place in a few weeks.

- Military traffic patterns and flight schedules discussed (specifically weekend schedules). TransPlan explains that these schedules were taken into consideration when running the second alternative.

- TransPlan explains that people counts will be conducted in an effort to analyze the degree of impact.

- Tom Chastain summarizes discussion: alternatives three, four and five offer very little benefit in terms of perceptive change in noise levels; alternatives one and six are the most attractive; and the second alternative needs to be studied again.

- Location of the airport and zoning briefly discussed.

- Extension of 12/30 to 7,500 feet briefly discussed.

- Ida Kenny expresses her objection to increasing traffic on 3/21.

- Don Harris explains that implementation of study recommendations is a shared responsibility (between the City and the FAA). Fryberger comments that the City is responsible for any damage caused by noise. Harris also discusses the approval process.

- TransPlan explains that the next meeting will be held in about a month and that land use factors will be discussed. Then, options will be presented and an implementation program developed.

- Meeting adjourned.

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JEWISH COMMUNITY CENTER
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21. Weir Labatt
Councilman
District 6

Minutes
San Antonio International Airport
PART 150 STUDY
Technical Advisory Committee Meeting
Wednesday, September 28, 1988

10:30 a.m. - Call to order by Tom Chastain.
Committee members introduce themselves.

- Chastain discusses the 22 alternatives they have analyzed and explains they have been broken down into two categories:

  1. Those not applicable at San Antonio International Airport/not beneficial to the community.

  2. Those offering potential benefits.

- Chastain also explains that the alternatives recommended will be carried forward to the next step of the study and an implementation program will be prepared. Cost estimates and an outline of responsibilities will also be presented.

- Alternatives recommended for elimination include:

  1. Relocation of the airport.

  2. Installation of permanent noise monitoring equipment.

  3. Construction of noise barriers.

  4. a. Extension of Runway 3-21 (existing utilization).
     b. Extension of Runway 3-21 (increased utilization).
     c. Extension of Runway 12L-30R (existing restrictions).
     d. Extension of Runway 12L-30R (without use restrictions).

  5. Flight pattern changes.

  6. Equalizing, increasing or rotating use of runways.

  7. Preferential runway use procedures.

  8. Limitations on types of operations/types of aircraft.

9. Capacity limitations based on noise.

10. Landing fees.

11. Avigaiton/noise easements.

- Alternatives recommended for implementation include.

  1. Improvement of the reliever airport (Stinson).

  2. Noise abatement departure profile.

  3. Restrictions on engine run-ups (already in place - TransPlan recommends that they be continued).

  4. Incentives for airlines introducing noise reduction measures.

  5. Noise contour validation (funding request submitted to the FAA).

  6. Complaint recording program (noise complaint officer, committee).

  7. Seek a greater percentage of stage three aircraft (50 - 60 percent by the 1990's).

  8. Comprehensive land use planning and zoning.

  9. Disclosure ordinances.

  10. Land acquisition in fee simple.

  11. Special treatment of public buildings (if necessary).

- Dick Linn explains the thrust cutback procedure used by American Airlines. He adds that from a safety standpoint, American cannot develop procedures to meet each individual airport's needs. Linn comments that individualized procedures are currently used at Washington D.C. and Orange County, but emphasized that different procedures will not be implemented at other airports.

- Linn offers to provide the committee with a copy of the procedures used by American. He also comments on the need for a national noise policy and the transition to stage three.

- Vic Nartz discusses the status of the ATA's standard departure procedures and explains that the ATA is working with the FAA to review and possibly modify the departure procedures -- a process expected to take a few years. Nartz emphasizes that in the airline industry, standardization is critical to safety.

- Lin discusses United Airlines and its failed attempt to alter the departure procedures for Denver.

- Lin adds that American Airlines has committed $15 billion since 1981 to stage three aircraft. Currently, American is 60 percent stage three--will be 75 percent stage three by 1991.

- The committee discusses the process/timing of retrofitting stage two aircraft and the number of manufacturers/equipment in the market.

- Linn emphasizes that American is doing all there is to do as it relates to departure procedures.

- Chastain closes and adds that the integrated noise model will be run an additional time. It is agreed that the air carriers are operating the thrust cutback as part of the normal profile.

Submitted by Vic Nartz at
9/28/88 TAC Meeting

Airline Pilots Association

NOISE ABATEMENT COMMITTEE

The Committee's purpose is to study and analyze all airline/aircraft related noise abatement problems and procedures; to develop safe and standardized operating procedures taking into account the aircraft performance and the human factors involved; and to correlate all procedures with other ALPA Committees, industry and government to achieve compliance with ALPA safety policies.

The following relates to ALPA Policy, Directives, and Positions of interest to the Committee.

Noise Abatement Policy

SOURCE - Board 1980

1. ALPA maintains that aircraft noise should be reduced by engineering and design and not by marginally safe flying techniques. ALPA shall refuse to endorse or accept Noise Abatement procedures which require:

a. Clearances which include a heading change below 600 feet for noise abatement purposes unless terrain or airspace restrictions dictate that a turn at lower altitude would be more prudent. Departure flight paths which do not comply with the engine-out obstacle clearance requirements of the Federal Aviation regulations must have published emergency procedures for engine failure which meet those obstacle clearance requirements.

b. Reduction of power, earlier or to a greater extent than good operating practice would dictate.

c. Climbs at airspeeds less than maneuvering speeds for the existing flap configuration.

d. Use of noise abatement approach procedures when weather is below 1,000 - three miles.

e. Approaches to be conducted above glide slope for noise abatement purposes.

f. Communications other than those required for standard traffic separation during takeoff and approach. Pilot judgment will remain as the overriding factor in determining whether or not noise abatement policy will be followed based upon flight conditions incurred.

Preferential Runway Noise Abatement Policy
SOURCE - Board 1980

1. Runways must not be designated as "preferential" for noise abatement purposes unless they meet the following minimum safe criteria:

a. Runway surface must be clear and dry.

b. Weather must be basic VFR.

c. Maximum tailwind component must not exceed five knots.

d. Total wind velocity must not exceed 15 knots.

e. Opposite direction takeoff and landings from single and/or parallel runways (head to head) must be provided a minimum of eight miles horizontal separation.

2. Should a Captain's authority in such matters be abrogated, he will receive the full support of ALPA in his defense.

Airport Curfews
SOURCE - Board 1982

ALPA opposes the imposition of curfews at airports where air carriers operate because of the detrimental effect such curfews can have on flight safety.

Safety Aspects of Noise Abatement Takeoff and Landing Patterns at Air Carrier Airports
SOURCE - Executive Board November 1973; Amended - Board 1980

The President will make public proclamation of unsafe procedures, such as in effect at Los Angeles International Airport (LAX), through a vigorous public relations program. He will exercise the full authority of his office to resolve such problems in conformance with ALPA "Noise Abatement" and "Preferential Runway" policies, and through contact with appropriate government agencies bring about implementation of rule making that will resolve existing problems and preclude future repetition. Further, he shall encourage and solicit the support of other labor and management groups to assist, if necessary, in support of this position.

Local Noise Procedures

SOURCE - Executive Board November 1977; Amended - Board 1980

ALPA supports and encourages federal preemption of local airport control of noise standards and procedures and encourages the FAA to develop and adopt federal standards and procedures for local noise control. Such noise standards should be based on average noise and not single-event metrics.

Penalties for Aircraft Noise

SOURCE - Executive Board May 1986

ALPA opposes any attempt to assess penalties against individual pilots for violations of airport or governmental noise criteria. Any pilot who is subjected to sanctions for violations of noise standards shall receive the full support of ALPA.

ALPA Standard Takeoff Procedure

SOURCE - Executive Board May 1977

1. Takeoff - Normal takeoff thrust used until reaching V_2f (zero flapspeed).

2. Initial Climb - Initial climb attitude following rotation is a predetermined pitch attitude which will produce V_2 + 10 - 20 IAS (each aircraft type will have its V_2+ number calculated by the operator. The two engine types will generally have a higher climb speed).

3. Acceleration - After climbing through 400 feet, but no later than 1,000 feet, A.F.L. (unless restricted by obstacles), allow aircraft to accelerate, continuing takeoff thrust until initial flap retract speed is attained. Retract flaps per schedule.

4. Quiet Climb - After airspeed reaches V_2f (zero flap speed) reduce thrust to the pre-computed quiet power (EPR) which is that required for maintenance of certificated engine-out climb gradient. Continue climb with this reduced power until clear of noise sensitive areas. 3,000-4,000 feet AFL (above field level) is recommended prior to resuming normal climb power.

5. Normal Climb - After passing noise sensitive areas, slowly apply normal climb thrust. Allow the aircraft to accelerate to normal climb speed (approximate rate of climb during acceleration 500 -1,000 FPM). Proceed on normal departure schedule.

6. Each MEC Chairman shall immediately seek the cooperation of his individual airline management in implementing the ALPA Takeoff Procedure as an industry-wide standard. Any additional technical information required in this endeavor will be supplied by the ALPA Engineering and Air Safety Department.

Note: The Engineering and Air Safety Department staff will provide, on request, information and data to assist MEC and air safety representatives in developing the required charts that will provide the takeoff information for each aircraft type; i.e., DC-9-10, DC-10, etc. The information will include pitch attitudes, thrust requirements for each segment of the climb, and airspeeds for each segment.

ALPA DIRECTIVES

Airport Curfews

SOURCE - Board 1982

The President shall take appropriate action to oppose airport curfews.

Noise Abatement

SOURCE - Executive Board May 1983

ALPA shall initiate the necessary actions to form a coalition initially composed of ALPA, AOCI and ATA to form a joint strategy toward the goal of a national noise abatement policy, regulations and legislation.

Noise Abatement Procedures Which Encourage Competitive Flying

SOURCE - Executive Board May 1986

ALPA shall take appropriate action to oppose competitive flying.

NOISE ABATEMENT COMMITTEE POSITIONS

Necessity for Minimum Aircraft Noise Impact on Communities

It is extremely important that pilots cooperate with efforts to reduce the noise impact of airline operations on the communities they serve. Noise has become a significant source of community irritation to the point that a danger exists of curtailment of or limitations on flight operations; therefore, any aid the line pilot can offer would be of benefit. However, each pilot must remember the need to assure that any noise abatement procedure used does not require unsafe operation of the aircraft or create a threat to safety of flight.

Available Noise Abatement Techniques

The Committee endorses and encourages community use of Comprehensive Zoning Ordinances and Land Use Plans which minimize aircraft noise impact. Sound proofing of noise-impacted structures is also encouraged. Use of safe, proven, uniform noise abatement flight procedures is encouraged; however, the only procedure which currently meets these criteria is the ALPA Noise Abatement Takeoff Procedure.

The Committee strongly opposes the following:

a. Limitations on the use of reverse thrust for noise abatement.

b. Use of two-segment glide slope procedures. This technique eliminates the safety advantage of a stabilized approach, increases vulnerability to wake vortices, and results in higher noise levels at the point of glide slope transition.

c. Curfews. Operating curfews reduce the availability of emergency, divert fields, create the potential for rushing to meet curfew limits and thus deviating from normal operational patterns, and the likelihood of diversions to unfamiliar or unprepared airfields.

TECHNICAL ADVISORY COMMITTEE MEETING
WORKING SESSION #5

San Antonio International Airport
September 28, 1988

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2. Wm. L. Czervinske
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3. Wallis D. Cone, Jr. USAF
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4. David C. Tharp
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7. Gerry Stallman
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8. Linda M. Wasserman
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9. Efren T. Gonzales
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10. Ed Sanii
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11. Dick Linn
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12. Vic Nartz
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13. Don Harris
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14. Thomas H. Chastain
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15. Allan A'Hara
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Minutes

San Antonio International Airport

FAR PART 150 STUDY
Community Advisory Committee Meeting

Wednesday, September 28, 1988
Holiday Inn - Airport

4:00 p.m. - Call to order by Councilman Weir Labatt. Committee members introduce themselves.

- Chastain provides a brief overview, including the process used to establish historic, current and future noise contours and airport operations. He discusses the 22 alternatives analyzed and explains that they have been broken down into two categories:

  1. Those not applicable at San Antonio International Airport/not beneficial to the community.

  2. Those offering potential benefits.

- It is explained that the alternatives recommended will be carried forward to the next step of the study and an implementation program will be prepared.

- Allan A'Hara presents the alternatives recommended for elimination. They include:

  1. Relocation of the airport.

  2. Installation of permanent noise monitoring equipment (portable equipment more useful).

  3. Construction of noise barriers.

  4. a. Extension of runway 3-21 (existing utilization) -- basically no change in the contour.
     b. Extension of Runway 3-21 (increased utilization -- noise situation worsened.
     c. Extension of Runway 12L-30R (existing restrictions) -- no benefit derived.

d. Extension of Runway 12L-30R (without use restrictions) -- no benefit derived.

5. Flight pattern changes.

6. Equalizing, increasing or rotating use of runways.

7. Preferential runway use procedures.

8. Limitations on types of operations/types of aircraft. Limitation defined and the city's position regarding restrictions explained.

9. Capacity Limitations based on noise.

10. Landing fees.

12. Avigation/noise easements.

- Chastain explains that shifting some of the traffic from Runway 12R-30L to Runway 3-21 (including weekend/evening shifts) produces a larger total impacted area.

- Alternatives recommended for implementation include:

1. Improvement of the reliever airport.

2. Noise abatement departure profile.

- Chastain explains that airlines are currently using the standard thrust cutback procedure and a more drastic thrust cutback would not be applicable for safety reasons. Chastain recommends that the standard policy be continued.

3. Restrictions on engine run-ups (already in place - TransPlan recommends that they be continued).

4. Incentives for airlines introducing noise reduction measures.

5. Noise contour validation (funding

request submitted to the FAA).

6. Complaint recording program (noise complaint officer, committee).

7. Seek a greater percentage of stage three aircraft (50 percent by the 1990s).

8. Comprehensive land use planning and zoning.

9. Disclosure ordinances.

10. Land acquisition in fee simple.

11. Special treatment of public buildings (to be further explored when the final contour is developed).

- In response to Phil Fryberger, Chastain explains that to be beneficial, it is necessary to hold the technical meeting separate from the community meeting.

- Fryberger asks if input was used from the Cress study as it relates to alternative 5 (a) and (b). Chastain explains that Cress did not complete this part of the study.

- Committee discusses that the request to the FAA for noise validation totaled $40,000. Acquisition costs for property within the 75 Ldn could exceed $1.4 billion. Fryberger asks Don Harris to find more information on the Stapleton Noise Insulation Program (SNIP) - a $25.7 million program which includes home surveys and a payment of $7,500 to homeowners for noise insulation. Fryberger points out that these funds are airport generated revenues.

- Harris assures the committee that the funds will be awarded for monitoring. He explains that the funds will be used to hire a professional laboratory to conduct the validation -- not for the purchase of equipment.

- J.P. Flynn argues against land acquisition and supports payment/tax

breaks to homeowners within the contour area. The committee discusses that such a financial break does nothing to reduce the noise impact, whereas a program that uses funds for insulation has actual noise reduction benefits.

- Ida Kenney supports strengthening of the disclosure ordinances, including disclosure by real estate agents. She also agrees to send copies of a newspaper clipping regarding Denver's programs to Mike Kutchins, Weir Labatt and Don Harris.

- Christopher Gunn asks if traffic can be diverted from the Walzem Road area between 5 a.m. and 9 a.m. Chastain discusses the "tight" air space condition and explains that any shift would simply move the noise to another populated area.

- Chastain explains that the pilot advisory program is already in place and therefore was not included on the list of recommended alternatives.

- Mike Kutchins explains a "clean-up" meeting will be held prior to the hearing.

- Chastain adds that the integrated noise model will be run an additional time. It is agreed that the air carriers are operating the thrust cutback as part of their normal profile.

- Chastain explains that they will submit to the FAA a map with three noise contours -- existing, 1993 contour assuming no changes are made in airport operations and a 1993 noise contour representing the implementation of this kind of a program. He explains that implementation recommendations will be presented at the next community advisory committee meeting which will be held once the contours are validated.

- Councilman labatt closes and explains that the public meeting should follow within about 30 days of the next meeting.

COMMUNITY ADVISORY COMMITTEE MEETING
WORKING SESSION #5

Holiday Inn Airport
September 28, 1988

1. Ida Kenny
   Ridgeview/Shearer Hills Neighborhood Assn.

2. Robert McNally
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3. Charles M. Stern
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   319 Coronet
   San Antonio, Texas
   (512) 349-6141

4. Patrick G. Wells
   Hidden Forest Homeowners Assn.
   15602 Partridge Trail
   San Antonio, Texas 78232
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5. James Coburn
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6. Ed Sanii
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7. P.H. Fryberger
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8. J.P. Flynn
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9. Don Harris
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10. M.J. Kutchins
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11. Gerry Stallman
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12. Rick Naylor
Department of Aviation
City of San Antonio

13. Efren T. Gonzales
Department of Aviation
City of San Antonio

14. Linda M. Wasserman
Department of Aviation
City of San Antonio

15. Weir Labatt
Councilman
District 6
City of San Antonio

16. Christopher & Bernice Gunn
Citizens
8242 New World Drive
San Antonio, Texas 78239

17. Thomas Chastain
TransPlan

18. Allan A'Hara
TransPlan

Minutes
San Antonio International Airport
Part 150 Study
Technical Advisory Committee
Tuesday, August 15, 1989 - 10:30 a.m.

Michael Kutchins	SAT	Byron Reed	NBAA
Efren Gonzalez	SAT	Bob Davis	ALPA
Carl Barber	SAT	Donald Harris	FAA
John Miller	SKF	Gerry Stallman	SAT
Ed Sanii	D&Z	Lisa Mastropieri	TransPlan
Linda Wasserman	SAT	Allan A'Hara	TransPlan
Vic Nartz	ATA	Al Notzon	AACOG
Bill Czervinske	FAA	Sylvia Schaefer	SAT
William Reynolds	RND	Les Hobgood	SAT
David Tharp	RND		

Mr. Kutchins welcomed everyone and asked them to introduce themselves. List of attendees attached.

Allan a'Hara presented an update in three parts [1] Noise Monitoring Program Results, [2] Noise Exposure Maps, and [3] Noise Compatibility Program.

Noise Monitoring Program - Over a three week period in February and March, 11 monitoring sites located around the airport collected data to validate or refute the Integrated Noise Model contours. For the most part, the monitoring validated the INM contours. The variations in the Northeast flow contours are due to the non-average day inputs when SAT was on a Runway 3 operation.

Noise Exposure Maps [NEM] - The five year projection [1993] NEM will contain very little change. Stage III aircraft will reduce this contour over time.

Noise Compatibility Program - The noise abatement alternatives were discussed in three stages. First, the thirteen alternatives were listed and expanded upon individually.

1. Establish a Noise Abatement Officer
2. Establish a Noise Abatement Advisory Committee
3. Create a Noise Complaint Monitoring Program
4. Continue standard Abatement Departure Profile
5. Pilot Advisory Program
6. Continue restrictions on engine run ups
7. Encourage greater percent of stage III aircraft
8. Conduct periodic noise monitoring
9. Improvement of reliever airport
10. Comprehensive land use planning and zoning
11. Acoustical treatment of existing public buildings
12. Disclosure ordinance
13. Land acquisition in fee simple

Next the list was broken out into areas of recommended responsibility for implementation between The City of San Antonio proper and the city's Aviation Department. And last, the alternatives were displayed over a five year implementation program.

Mr. Kutchins expressed concern with possible confusion over the implementation schedule. The chart needs to make it clear whether it's to start or end at the times indicated.

Mr. Notzon suggested that future building permits within the 65 Ldn contour be regulated for land use and acoustical treatment.

Ms. Mastropieri said this was addressed in the expanded report.

Mr. Czervinske expressed concern on how and who would implement these elements so they would insure an orderly and safe air flow. He wanted to make sure that no procedures that might suggest unsafe operation or challenge the credibility of present procedures would be recommended.

Mr. Davis asked why the runway preferential use was eliminated as an option.

Mr. A'Hara answered that the complete rationale is in the expanded version. Today's briefing material is only a summary. The full report will be placed in libraries and other public places for review prior to the public hearing. It's hoped that by the end of October, the study perfected and into the FAA review process.

The meeting was adjourned at 11:40 a.m.

Minutes
San Antonio International Airport
FAR Part 150 Study
Community Advisory Committee Meeting
Tuesday, August 15, 1989 - 3:00 p.m.
Holiday Inn - Airport

Weir Labatt	City Councilman
Jimmy Hasslocher	City Councilman
Marilyn Rose	Churchill Estates Homeowners Association
Mark Gainey	Oak Park/Northwood Homeowners Association
Philip Fryberger	Oak Park/Northwood Homeowners Association
Charles Stern	Crown Hill Park Homeowners Association
Patrick Wells	Hidden Forest Homeowners Association
Ida Kenny	Shearer Hills-Ridgeview Homeowners Association
Ed Sanii	Day & Zimmermann
Byron Reed	National Business Aircraft Association
R.B. Hatch	Airport Advisory Committee
Don Harris	FAA Southwest Region
Michael Kutchins	San Antonio International Airport
Gerry Stallman	San Antonio International Airport
Efren Gonzalez	San Antonio International Airport
Carl Baber	San Antonio International Airport
Linda Wasserman	San Antonio International Airport
Les Hobgood	San Antonio International Airport
Sylvia Schaefer	San Antonio International Airport

Mr. Labatt called the meeting to order stating that the purpose of the meeting was to hear the report by the consultant. This would be followed by discussion and the setting of a tentative date for the public hearing.

Mr. A'Hara distributed copies of the briefing report and asked that everyone sign in on the attendance sheet. He prefaced his presentation by explaining what has occurred over the last few months, what would be provided at the meeting and what is anticipated to occur in the next couple of months with respect to the overall study.

Mr. A'Hara stated that TransPlan is prepared to make the necessary revisions and final changes to the study following the meeting. It is hoped that the entire Part 150 Study can be released in draft form for general public review by October, with a late October public hearing. The draft will be available for the public to review for at least 3 weeks prior to the hearing. Notification of the public hearing will be made 30-days in advance.

The briefing was a three parts: [1] The Noise Monitoring Program Results, [2] The Noise Exposure Maps, and [3] The Noise Compatibility Program.

Noise Monitoring Program - An additional grant was received from the FAA for the noise monitoring program. A local acoustical consultant was retained to work together with the Airport and the FAA.

The monitors were sited in various key locations so as to provide comparison between actual noise contours and those generated by the computer model. They were placed primarily on public property for ease of access and security. Where possible, the public property selected was one of the noise sensitive sites.

The acoustical consultant used equipment which was reviewed and approved by the FAA. Each site was monitored for a minimum of five days with the equipment being calibrated and the data collected daily. The raw data results were plotted against the INM contours. Radar, flight track and weather data for that same period of time were also taken into account.

Both the consultant and Aviation staff feel comfortable with the noise monitoring results. The FAA has approved the noise monitoring results as validating the noise contours.

In response to questions from Mr. Hasslocher, Mr. A'Hara stated that noise monitors are not placed next to Interstate Highways due to the constant traffic noise which would be higher or very close to the noise level of an overflying aircraft. The acoustical consultant recommended using public structures wherever possible, particularly those in close proximity to the INM contours which were to be validated.

Mr. Fryberger was assured that the various parties, consultant, Aviation staff and FAA, are in agreement that the INM contours have been validated and a copy to a letter from the FAA indicating that the contours are acceptable is contained in the briefing report.

Mr. Kutchins added that later on in the program the City will be performing specific noise monitoring in various neighborhoods.

In response to a question from Ms. Rose, Mr. A'Hara explained that monitoring was concentrated primarily to the southeasterly side of the airport because the contour there is larger due to the climbout and the existence of more than one flight path in the area.

Mr. A'Hara explained that while the study bridged a two-year period, statistical information for 1988 did not indicate a substantial change from 1987. There is very little difference between the existing condition map and the 1993 contours. The noise exposure map submittal to the FAA will consist of a current and a 5-year projected noise impact picture.

In response to Mr. Hasslocher's question, Mr. A'Hara said that San Antonio's contours are very typical when compared to other airports around the country with the same activity level and size.

Mr. Kutchins added that a set of contours for 10 years earlier indicates that they are essentially identical to what is happening today despite the fact that the number of passengers moving in and out of the Airport has more than doubled. The airlines are using some newer, larger, quieter aircraft so the noise level has remained relatively consistent while a substantially greater number of passengers is being served.

Mr. A'Hara presented the Noise Compatibility Program. Out of 25 alternatives studies. The following 13 are recommended:

1. Establish a Noise Abatement Officer
2. Establish a Noise Abatement Advisory Committee
3. Create a Noise Complaint Monitoring Program
4. Continue standard Abatement Departure Profile
5. Pilot Advisory Program
6. Continue restrictions on engine run ups
7. Encourage greater percent of stage III aircraft
8. Conduct periodic noise monitoring
9. Improvement of reliever airport
10. Comprehensive land use planning and zoning
11. Acoustical treatment of existing public buildings
12. Disclosure ordinance
13. Land acquisition in fee simple

Mr. A'Hara stated that the one alternative which would affect the noise contour would be a greater percentage of stage III aircraft at the Airport. He added that San Antonio in recent years has been somewhat under the national average of percentage of stage II versus III aircraft, however, that appears to be changing. The airlines have provided letters indicating their existing situation with respect to stage III airplanes and what their projections are.

Periodic noise monitoring could be done through an acoustical consultant or by the Noise Abatement Officer if the City were to acquire the necessary equipment.

Comprehensive land use planning and zoning would come from the downtown City offices as opposed to the Department of Aviation. This study will now provide the data and information that the City needs to carefully enact land use or zoning changes for the remaining undeveloped area within the contours.

A disclosure ordinance would provide information as to the noise sensitivity of a particular parcel to a prospective buyer.

Acoustical treatment of public buildings is sound proofing, window/door insulation, total insulation for the purpose of reducing noise levels. Schools which are located within the 75 Ldn contour are perfect examples of buildings which might qualify for federal funding for acoustical treatment.

The recommendation of land acquisition is still in the process of being defined. It will be more a "Purchase Assurance Program". There may be Federal funds available to acquire vacant or undeveloped land within the highly sensitive noise areas and use it for some type of compatible land use. There may also be opportunities, should funds become available, to purchase residences in extreme circumstances where the owner resident feels the noise is intolerable and prefers to sell. There would be no blanket purchase of property within the 75 Ldn contour.

Mr. A'Hara reiterated that responsibility for enacting the Noise Abatement Program rests with the City of San Antonio through its Department of Aviation. Other City departments would be responsible for land use and zoning, treatment of the buildings, enactment of a disclosure ordinance, and any type of land acquisition.

The Noise Abatement Officer will be responsible for monitoring the implementation of the Noise Compatibility Program including the complaint program, working with airlines regarding their operating procedures and plans for increasing stage III aircraft and the pilot advisory program.

Other City departments and Aviation will work with the Noise Abatement Advisory Committee which will be a combination of community representatives, airport users and technical advisors.

Mr. Fryberger requested a copy of the chart used by Mr. A'Hara in his presentation. Mr. A'Hara stated that a copy of the chart would be included in the final report.

Mr. A'Hara emphasized that a number of the items have been ongoing at the Airport and it is recommended that they continue. Others were recommended as part of the program and have already been implemented, such as establishing the Noise Abatement Officer position. It is important that through the Noise Abatement Advisory Committee and the Noise Abatement Officer the entire program be monitored on a year-to-year basis so that if the need arises, the program can be updated. Perhaps, in time, the FAA will develop a mechanism for updating or revising Part 150 Studies.

In response to a question from Ms. Kenny, Mr. A'Hara stated that the Stinson Environmental Impact Statement has been in the hands of the FAA for review since last October. Following approval of the plan, any development, will depend upon the availability of funds.

Mr. Labatt requested that the 1978 noise contour map which was part of the 3/22/88 committee meeting handout be included in the final report. Comparison of the 1978 and 1987 contours indicates there is very little difference. It appears that, as the number of passengers has increased, the airplanes have become quieter and bigger, but the resulting noise levels have not substantially changed since 1978. Mr. A'Hara stated that it has been included.

In response to a question from Mr. Labatt, Mr. A'Hara stated it is important to keep information brief with respect to the general public. Normally some type of pamphlet with the key data in it is developed. The study itself will be available for public consumption for that three-week period prior to the meeting. It is felt this is really the best way to make that information available to them.

Mr. Lambatt raised several questions concerning the noise abatement alternatives which had been considered but did not appear as part of the recommendations. He specifically inquired about the possibility of increasing the use of Runway 3/21. Mr. A'Hara responded that it was eliminated because it would increase the noise impacts off those runway ends and it would also complicate the safety aspects of the air traffic control procedures. This was corroborated by Mr. Harris who stated that increased use of Runway 3/21 would not reduce the number of people impacted and it would create a conflict for air traffic control.

Mr. Harris added that all alternatives which were considered and eliminated would be discussed in the report which would include reasons for their rejection.

With everyone in concurrence, the tentative date of October 24 at 7:00 p.m., at the Convention Center was selected for the public hearing.

Mr. Fryberger read a prepared statement at this time. (No copy was provided for inclusion with this report.)

In response to his question, Mr. Fryberger was informed that general aviation accounts for approximately 50% of the usage at International Airport.

Mr. Harris outlined procedures to be accomplished following the public hearing. The City Council should take whatever action is necessary to accept and approve the study as presented to it. The study should then be forwarded to the FAA in Ft. Worth where the region has recently been given the authority to accept and approve the Noise Exposure Maps. Notice announcing that the maps have been accepted and the program has been submitted for review will then be published in the Federal Register by Mr. Harris who will prepare the record of approval to be signed by the Regional Administrator in Ft. Worth. This will then be forwarded to Washington. From the date of signature of the Federal Register notice, Washington has 180 days in which to approve/disapprove it.

The meeting was adjourned at 4:40 pm.

Attachments:

1. Stallman Letter
2. Fryberger Letter

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

SEP 25 1989

September 18, 1989

Mr. P. H. Fryberger
Chairman
Oak Park-Northwood Neighborhood Assn.
P. O. Box 17093
San Antonio, Texas 78217

Dear Mr. Fryberger:

Thank you for the copy of the comments you addressed to the San Antonio International Airport Noise Compatibility Study Community Advisory Committee on August 15, 1989.

They will be attached to the minutes of that meeting.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlans
Michael J. Kuchins
Carl Baber
Les Hobgood

COMMUNITY ADVISORY COMMITTEE MEETING

AUGUST 15, 1989

It came as a surprise to me yesterday while reading a newspaper to learn that this meeting was open to the public. The Community Advisory Committee members all received the Director of Aviation's letter dated December 3, 1987, which stated, "Due to the number of community groups which will participate on this committee, it is requested that each group appoint a single spokes-person to express the views of the group. This will insure that the meetings are productive working sessions which focus on the concerns of all involved." We have been adhering to these rules and telling our members they should not and could not participate in these meetings. I want to thank those members of the Oak Park-Northwood Neighborhood Association who have taken the time and trouble to come out here today, and regret that we were informed only through the media that this meeting today was to be a public one. We hope that similar miscommunications do not occur in the future, but in any case, we are ready, willing, and able to participate in the process of developing a workable Noise Compatibility Program either as members in productive working sessions or at public meetings.

I have been allocated five to seven minutes on this busy agenda, so what I have to say won't take very long. I am here for the following purposes. First, I hope to receive copies of the results and findings of the Noise Monitoring effort. Secondly, I hope to receive copies of the final Noise Contours and Noise Exposure Maps, and third and most importantly, I would like a copy of the draft Noise Compatibility Program.

After we have had an opportunity to review all of this information presented here today, we intend to submit our thoughts to the Aviation Advisory Committee, the City Council and at the Public Hearing which is required

by public law. In other words, we will make any suggestions and recommendations through appropriate established decision-making channels. We will request that those comments and our position be included as an appendix to the draft Noise Compatibility Program and the Part 150 TransPlan Study.

Since November 1987, when this follow-on study began, we also have been seeking constructive noise abatement alternatives. We have developed some thoughts along the lines of what we consider to be minimum-essential or critical items which must be included in a responsible Noise Compatibility Program. We are currently developing those ideas and will be ready to present them at an appropriate time - after we have had an opportunity to study and review the information which we receive today.

We recognize the current budget problems being faced at all levels of government - federal, state and local - and we know that any realistic approach to resolve the aircraft-airport noise problem at San Antonio International Airport cannot be based on expectations of receiving any significant funding. We have, therefore, focused on noise control strategies which have already proved to be effective and that can be put into place with minimum or no costs. The strategies we are considering have been successfully used by other cities having noise problems similar to the ones that we face. We have no doubt that their application can be tailored to meet San Antonio's specific requirements, and most of them have already been recommended or approved by the Federal Aviation Administration (FAA). Cooperation and compromise must be forthcoming from all parties, including the City, to put into place an effective Noise Compatibility Program which will abate or mitigate airport/aircraft noise impact on neighborhoods.

I hope to leave this meeting with four things. First, I would like copies of the data developed by TransPlan, that is: the results and findings of the Noise Monitoring effort, the final Noise Contours and Noise Exposure Maps - and more importantly, a draft copy of the Noise Compatibility Program. Without this information we cannot make informed comments as members of this committee. Secondly, I would like a copy of the City's actual schedule of their review, acceptance and approval process for the above data. Third, I would like a projected schedule from the FAA showing their acceptance, approval and implementation process for a final Noise Compatibility Program for this City. Fourth, and last, I need to confirm the date, time and place of the next City Aviation Advisory Committee meeting, which I understand is to be held: Date:

Time:

Place:

Thank you very much.

Philip H. Fryberger
Chairman
Oak Park-Northwood Neighborhood Association

A RESOLUTION
NO. 87-58-89
SUPPORTING FEDERAL AVIATION REGULATIONS PART 36

* * * * * * * * * * *

WHEREAS, the City of San Antonio is the owner and operator of the San Antonio International Airport, and

WHEREAS, the City wishes to operate its airport in harmony with those citizens residing in close proximity to the airport, and

WHEREAS, the City is committed to the safe and efficient operation of its airport in a manner which alleviates, wherever possible, the impact of aircraft noise upon such citizens; NOW THEREFORE:

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

That the City Council endorses and supports Federal Aviation Regulations Part 36, Noise Standards: Aircraft Type and Air Worthiness Certification, dated June 1974 and encourages the rapid transition to Stage Three aircraft.

PASSED AND APPROVED this 10th day of December, 1987.

ATTEST:

Norma S. Rodriguez
City Clerk

Yolanda Vera
M A Y O R

APPROVED AS TO FORM: Tom Finlay
City Attorney

87-58

UNITED AIRLINES

'88 NOV 7 P1 :5

RECEIVED
AVIATION DEPT.

November 1, 1988

Mr. Michael J. Kutchins, A.A.E.
Director of Aviation
City of San Antonio
Department of Aviation
9800 Airport Boulevard
San Antonio, TX 78216-9990

Dear Mr. Kutchins:

Your recent letter to Mr. Stephen Wolf has been referred to my attention for response. The Airport Affairs Department is directly responsible for United's ongoing relationship at its system airport locations, including involvement in noise issues which become a source of concern to the community.

First, let me say we have absolutely no argument with the content of your recent Council Resolution supporting the use of, and transition to, a greater number of Stage III aircraft. United was one of the industry leaders in the use of B767 aircraft, in addition to engine conversion of our DC-8 fleet to Stage III status. We are also currently receiving B737-300 aircraft to replace older Stage II B-727-100 models. One of our largest purchases is still under review, but in the near future will allow a large share of our B727 fleet to be replaced by Stage III aircraft.

This is a vast undertaking by United, with a price tag of several billions of dollars by the middle of the 1990's. As you may imagine, it also requires sustained economic vitality and continued use of a diminishing number of Stage II aircraft until full replacement can be achieved. You can be assured that United is indeed sensitive to the need for accelerated growth of its Stage III fleet, and confident that operational cost savings from the use of these aircraft will be influential in achieving this objective. United shares your desire that Stage III replacement be achieved as quickly as economically possible.

Sincerely,

J. Richard Street
Vice President
Airport Affairs

/jg

cc: S. M. Wolf
L. M. Nagin

AmericanAirlines

RECEIVED
1988 NOV 28 P
AVIATION DEPT.

November 18, 1988

Mr. Michael J. Kutchins, A.A.E.
Director of Aviation
City of San Antonio
Department of Aviation
9800 Airport Boulevard
San Antonio, Texas 78216-9990

Dear Mr. Kutchins:

Your letter to Mr. R. L. Crandall dated October 21, 1988 has been referred to me for response. As Vice President of Corporate Services I have responsibility for all corporate real estate matters, including airport affairs.

Be assured American Airlines shares your concern about the aircraft noise issues. There is no doubt that the noise issue is becoming a major roadblock in our ability to modify existing airport facilities to enhance the capacity of the air transportation system.

I would like to share with you our present fleet acquisition plan. As you may know, American Airlines announced earlier this year a purchase of 50 B-757-200 aircraft, with an option for 50 additional aircraft, worth approximately 4.2 billion dollars. This Stage 3 aircraft, powered by Rolls Royce engines, represents the best noise reduction technology that can be incorporated into an airplane design.

This purchase, on top of our 1981 purchase of 250 MD-80 Stage 3 aircraft, delivery of which should be completed by year end 1991, will bring our fleet to a 75% Stage 3 compliance by that time. This percentage is the highest of the major carriers in the United States.

Also, by the end of 1991 our B-737-200 Stage 2 fleet will be removed from active American Airlines service, and, the process of reducing the number of B-727-100 Stage 2 aircraft in service will have begun.

During this decade American Airlines has committed over 15 billion dollars to new Stage 3 equipment which I believe is a testament to our desire to provide efficient and economical air transportation to the traveling public, while providing an improved environment at the many airports we serve. With this background in mind, I want to say that American Airlines will do its share to serve your airport in the future with the most economical and environmentally acceptable aircraft.

P.O. BOX 619616, DALLAS/FORT WORTH AIRPORT, TEXAS 75261-9616, CABLE ADDRESS AMAIR

Mr. R. J. Linn of our planning staff, who has been closely following your FAR Part 150 study is available to discuss in any detail you desire, the American Airlines fleet plan and our operation at San Antonio. He can be reached at (817) 355-5427.

Again, we look forward to working in harmony with you and the San Antonio community toward achieving a problem-free airport operation.

Very truly yours,

Thomas J. Kiernan
Vice President
Corporate Services

cc: R. L. Crandall
M. J. Cunningham - SAT

TJK/11/18-1

BRANIFF

'88 NOV 4 P1 :

RECEIVED
AVIATION DEPT.

7701 Lemmon Avenue
P.O. Box 7035
Dallas, Texas 75209
(214) 358-6354

Richard L. James
Executive Vice President
Planning

November 1, 1988

Mr. Michael J. Kutchins, A.A.E.
Director of Aviation
City of San Antonio
Department of Aviation
9800 Airport Blvd.
San Antonio, TX 78216-9090

Dear Mr. Kutchins:

I am in receipt of your letter dated October 21, 1988 and appreciate your comments regarding noise control in the San Antonio area.

Braniff is sensitive to the concerns of the communities it serves as it relates to aircraft noise. We at Braniff are currently taking steps to phase out noisier aircraft, with replacment aircraft that are more modern and quieter. However, this can not be accomplished quickly, it will in fact, take several years.

We certainly want to continue to work with local communities in this regard and we appreciate your bringing your concerns to our attention.

Sincerely,

Richard L. James

cc: William McGee
Chairman of the Board

RLJ/klk

R. W. ALLEN
CHAIRMAN OF THE BOARD AND
CHIEF EXECUTIVE OFFICER

DELTA AIR LINES, INC.
HARTSFIELD ATLANTA INTERNATIONAL AIRPORT
ATLANTA, GEORGIA 30320

'88 DEC 6 P1 :1
RECEIVED
AVIATION DEPT.

November 28, 1988

Mr. Michael J. Kutchins
Director of Aviation
City of San Antonio
9800 Airport Boulevard
San Antonio, Texas 78216-9990

Dear Mr. Kutchins:

Delta Air Lines is in agreement with your recent City resolution to encourage the transition to Stage 3 noise-qualified aircraft. As you may be aware, our recent long-range aircraft order included options for an additional 100 MD-80s and 50 B-757s, all of which are Stage 3. These new aircraft will complement our domestic fleet, flying or previously on order, of which Stage 3 aircraft comprise 110 MD-88s, 80 B-757s, 42 B-767s, and 23 L-1011-1s. It should be apparent that Delta is making significant strides towards creating quieter airport environs while continuing to meet the needs of the traveling public.

The benefits from Delta's change towards a Stage 3 fleet have been particularly dramatic at San Antonio. As our MD-88 fleet has expanded, the percentage of Stage 3 operations as your city has increased from about 13% to almost 44% since November 1987. While there will be some stabilization at this level as new Stage 3 aircraft are dispersed more widely throughout the system, this level should begin to increase again in 1990.

You noted that San Antonio has a reputation as a progressive community. I believe Delta Air Lines has achieved a similar progressive reputation as a good, quiet airport neighbor through its continued acquisition of latest technology aircraft.

Very truly yours,

R. W. Allen

SOUTHWEST AIRLINES CO.
Herbert D. Kelleher
Chairman of The Board,
President & Chief Executive Officer

P. O. Box 37611
Love Field
Dallas, Texas 75235-1625
(214) 902-1110

November 11, 1988

The Honorable Henry Cisneros
Mayor of the City of San Antonio
P. O. Box 839966
San Antonio, Texas 78283-3966

Dear Henry:

Mike Kutchins was kind enough to give me your resolution No. 87-58-89 encouraging the rapid transition to Stage Three aircraft. Mike's letter asked Southwest to make quiet aircraft a high priority in our future plans for San Antonio.

Therefore, I thought you would be interested in Southwest's actions concerning Stage Three aircraft.

First, Southwest provided Boeing with the "launching" order for the Boeing 737-300--the quietest aircraft of its type and size in the world.

Second, Southwest operated the first B-737-300 commercial flight in the world on December 17, 1984.

Third, since that time, Southwest has acquired a total of 39 new 737-300's. At today's price of $25 million each, that's a billion-dollar investment in Stage Three aircraft.

Fourth, while cheaper and noisier aircraft were available, Southwest has not acquired any Stage Two aircraft since 1984. Thus, the percentage of Stage Three aircraft in our fleet is always increasing.

Fifth, Southwest will take delivery of nine more 737-300's in 1989.

Sixth, Southwest again provided the launching order for the Boeing 737-500, a new airplane to be delivered to us in 1990 and one which early tests indicate will be quieter still than the 737-300. We get ten of these new planes in 1990.

Seventh, Southwest has agreed to purchase or acquired options to purchase at least fifty-two additional Stage Three planes (both 737-300's and 737-500's) to be delivered through 1994.

Eighth, in 1988, in conjunction with Sea World of Texas, Southwest placed the quietest whale in the world, Shamu, into service on our regular routes.

In conclusion, the transition to quiet aircraft has been our highest priority for quite some time. We hope your resolution will spur our competitors to match our efforts.

Thank you for your interest and your support for your international airport and Southwest Airlines.

Very truly yours,

Herb

Herbert D. Kelleher

HDK/bs

cc: Mr. Michael J. Kutchins, A.A.E.
Director of Aviation
City of San Antonio

Mr. Joe Krier
President & CEO
San Antonio Chamber of Commerce

Mr. Ron Ricks
Vice President, Governmental Affairs
Southwest Airlines

Mr. Carl Warrell
Station Manager
Southwest Airlines, San Antonio

B.P.S. This letter also was sent to each member of the City Council.

SOUTHWEST AIRLINES CO.
Ron Ricks
Vice President
Governmental Affairs

P. O. Box 37611
Love Field
Dallas, Texas 75235-1625
(214) 902-1174

'89 OCT 20 P 1
RECEIVED
AVIATION DEPT.

October 18, 1989

Mr. Mike Kutchins
Director
Aviation Department
City of San Antonio
9800 Airport Blvd.
San Antonio, Texas 78216

Dear Mike:

I understand that the city of San Antonio will conduct a hearing on October 24, 1989 in regard to the ongoing Part 150 Noise Study. With your permission, we would like to submit this letter as Southwest Airlines' statement for the record.

Southwest Airlines has been serving San Antonio International Airport since June 18, 1971 with regularly scheduled service by Boeing 737 aircraft. Today, Southwest is the largest carrier in terms of passenger enplanements at the airport. The frequent service and low fares offered by Southwest have conferred considerable economic benefit upon the city of San Antonio. Today, the excellent airport facilities provided by San Antonio rival those offered by any airport in the United States of America. It is a pleasure to serve San Antonio International Airport. The relationship between Southwest Airlines and San Antonio has been, in all respects, mutually beneficial.

In recent years, however, residents who chose to reside near commercial airports have become increasingly vocal in their concerns about airport noise. In an effort to mitigate such concerns and abate airport noise, Southwest Airlines has embarked upon an ambitious and costly fleet acquisition program whereby we are acquiring the most modern, quiet airplanes available. Toward this goal, Southwest Airlines was the first airline in the world to operate the Boeing 737-300, the quietest airplane of its size and type. Southwest Airlines' first commercial flight with a 737-300 was performed in December, 1984. Prior to December, 1984, Southwest Airlines had no Stage 3 airplanes in its fleet, although all of our flights were performed with Stage 2 aircraft with two engines, all of which were in compliance with federal noise regulations.

In the five years since the 737-300 aircraft became available, Southwest Airlines has acquired 46 of these wonderfully efficient and quiet airplanes. This represents 50% of our total fleet. I am pleased to report that effective with our September, 1989 flight schedule, over 68% of our scheduled flights from San Antonio are performed with Stage 3 aircraft.

This commitment to use the quietest airplanes available is remarkable for a company our size in light of the fact that each plane costs approximately $25 million. Our commitment does not end there, however. In March of 1990, Southwest Airlines will become the first airline in the world to fly the Boeing 737-500, a new Stage 3 airplane designed and built to our specifications. Preliminary reports are that the 737-500 will be even quieter than the 737-300. We will take delivery of ten of these new airplanes in calendar year 1990.

While I know the Part 150 study does not address the economic impact of commercial aviation, I thought you would be interested to know the results of a recent study conducted by the Partnership for Improved Air Travel. The Partnership, a nationwide coalition that includes airlines, unions, manufacturers, airports, and individual citizens, realized that no comprehensive national study had ever been done. Based on 1987 data, the report concluded that the economic impact of commercial aviation <u>in the state of Texas alone</u> totaled $38.4 billion. General aviation contributed an additional $2.8 billion in annual economic activity. Together, commercial and general aviation generated, directly or indirectly, jobs for over 600,000 Texas residents--8.1% of the state's total work force. There can be no doubt of the significance of civil aviation in the San Antonio economy.

Thank you for the opportunity to comment. Please let me know if you have any questions.

Very truly yours,

Ron Ricks

Ron Ricks

RR/bs

cc: Mr. Herbert D. Kelleher, Chairman, President & CEO, SWA
Mr. John Denison, Executive V. P.-Corporate Services, SWA
Mr. Carl Warrell, Station Manager, SWA-San Antonio
Mr. Bob Montgomery, Director of Properties, SWA

APPENDIX F

PUBLIC COMMENTS

RECEIVED
SEP [illegible]
PLANNING
ASW-610

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. O. BOX 17093

SAN ANTONIO, TEXAS 78217

AUG 2 3 1989

TO: Chairman and Members of the Aviation Advisory Committee
San Antonio, Texas 78216

Mayor Lila Cockrell and Members of the San Antonio City Council
San Antonio, Texas 78283

U.S. Department of Transportation - FAA-SW Region
Fort Worth, Texas 76193

FROM: Oak Park-Northwood Neighborhood Association

SUBJECT: Approval of Part 150 Noise Compatibility Program (NCP) for San Antonio International Airport

The following four critical noise control strategies must be included as essential elements of an approved Noise Compatibility Program (NCP) for San Antonio International Airport.

I. STAGE 3 INCENTIVES: The City should reduce total noise exposure by providing incentives for airlines to route more Stage 3 aircraft in and out of San Antonio. Increased airport revenues can be realized by structuring a two-tiered fee system which would feature increased usage and rental costs for continued routing of Stage 2 aircraft to and from San Antonio. This should be coupled with a curfew on take-offs of Stage 2 aircraft (or equivalent noise producers) at night from 11:00 p.m. to 6:30 a.m.

II. ROTATIONAL RUNWAY SYSTEM: The City and FAA should provide more equitable distribution of noise impact by increasing the use of runway 03-21, the secondary runway, from its current rate of 8% to a reasonably equitable rate of 25%. The current $9.5 million project to reconstruct that runway, which cannot have deteriorated because of use or poor weather conditions, must be justified by reasonable increased use of it.

III. FLIGHT PATH MODIFICATIONS AND VARIATIONS: The FAA and airport users should provide more equitable distribution of noise by devising increased flexibility in use of departure and arrival flight paths. Accomplish this by allowing minor modifications within the flight profiles and continually varying climbs and turns within safe, permissible arrival and departure envelopes to disperse the noise impact.

IV. NOISE COMPLAINT "HOT LINE": The City should provide a "HOT LINE" to educate the public about noise abatement and to receive noise complaints. Using data obtained from this standard tool of noise abatement offices nationwide, develop and perform "community attitudinal surveys" to monitor progress and determine the effectiveness of the approved Noise Compatibility Program.

The attached paper is an exposition of these four critically essential noise control elements which we believe are required for the approved Noise Compatibility Program to be developed for San Antonio International Airport. Nothing precludes the use of additional noise control strategies now and in the future as soon as they can be tailored specifically for local use. Furthermore, all noise control strategies should be used in combination to achieve maximum incremental noise reduction and mitigation. All elements have been identified for many years and are now in use at other airports. We believe that the recommendations herein are reasonable, equitable and balanced so that any undue economic burden is shared by those who create the noise and those who suffer the noise.

We respectfully request that this letter and its attachment be included as an appendix to the Part 150 Study performed by TransPlan Inc. of New York.

Sincerely,

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. H. Fryberger

P. H. FRYBERGER
CHAIRMAN

PHF:eaf

Attachment: Part 150 Noise Compatibility Program for
San Antonio International Airport

PART 150 NOISE COMPATIBILITY PROGRAM

FOR

SAN ANTONIO INTERNATIONAL AIRPORT

The purpose of this paper is to present the comments and recommendations of the Oak Park-Northwood Neighborhood Association, which represents over 3,000 owner-occupied single family residences and over 5,000 taxpayers located southeast of San Antonio International Airport. It is submitted to the City of San Antonio, as airport owner and operator, and to the Federal Aviation Administration (FAA) Southwest Regional Office, Fort Worth, Texas, which has jurisdiction of aircraft noise abatement programs at San Antonio. We submit this paper to document what we consider to be the minimum acceptable elements to be incorporated in a reasonable, equitable and economically balanced noise abatement program. It also contains our position regarding the Part 150 Noise Compatibility Study started in November 1987 by TransPlan Inc. of New York. Please note that to date we have not yet had the opportunity to review the TransPlan Study in detail, nor have we had the opportunity to submit our views, data and comments concerning the correctness and adequacy of the noise exposure map as revised by TransPlan after validation by dosimeters. We believe that such an opportunity to comment on the validation program is required by §150.21(b) of FAR Part 150, revised January 18, 1985. We also look forward to the opportunity of presenting our comments and recommendations at the public hearing required for compliance with Title III, Sec. 301(a) of the "Airport and Airway Safety and Capacity Expansion Act of 1987" (P.L. 100-223, Dec. 30, 1987).

The airport noise problem in San Antonio, although a local problem, is part of a national problem which plagues millions of homeowners. In 1976 the FAA concluded that "the continuing annoyance and irritation of excessive aircraft noise is an unwarranted intrusion upon the lives of some six million Americans. Ten years later, in May 1986, the FAA had "a central compilation of airport-oriented actions to control, reduce and/or minimize the impact of aviation noise." Although it identified 37 categories of noise control actions in use, singly or in combination, by approximately 400 airports - the FAA in January 1987 still reported that airport-related noise affects some six to ten million people in the United States. According to a GAO report issued in August 1988, this included about five million Americans living in typical residential neighborhoods, such as ours, in which the noise impact is greater than Ldn 65. ("Ldn 65 complaint behavior includes legal actions and threats of legal action because of aircraft noise.") We have briefly described the national problem, and before addressing the local problem in San Antonio we would like to provide an example of the time frame it takes to resolve what the U.S. Supreme Court finally decided <u>is</u> a local problem.

Back in December 1978, Alderman Richard Simpson of Chicago proposed an ordinance to reduce jet aircraft noise. He was told his ordinance was already federal law. His response was that he wanted Chicago to "say it also" and to assert itself as owner and operator of O'Hare International Airport. He thought that "Chicago should own up to its responsibility as owner/operator and make its own noise reduction ordinance." Six years passed, and in December 1984 a class action suit was filed against the City and seven airlines seeking damages of ten thousand dollars for each of the three hundred thousand residents living near O'Hare. Four more years passed, and in

December 1988 a federal court ruled that the City can be sued for damages blamed on noise from O'Hare. On May 23, 1989, it was reported that the U.S. Supreme Court refused to block that lawsuit against Chicago. The lawsuit alleged that noise from the city-owned airport created a nuisance and interfered with property rights. It took slightly more than ten years to vindicate Alderman Simpson's assertion that "the City should own up to its responsibility as owner/operator" of O'Hare. The May 1989 U.S. Supreme Court has handed down a landmark decision in favor of neighborhoods which are subjected to unnecessary airport noise, such as Oak Park-Northwood.

San Antonio's airport noise problem has been visually stated on the noise exposure maps prepared by TransPlan and previous contractors going at least as far back to a study on file at City Hall by Bovay Engineering, Houston, Texas, dated 1968. In our view, the noise problem that now exists at our inner-city airport derives from two conflicting policies or facts of life in San Antonio which have contributed to both the expansion of the city and expansion of the airport, thus leading to mutual encroachment and the need for responsible land use planning. Stinson Field was the City's first municipal airport, but early in the 1940's Alamo Air Field was acquired north of the city. Then came World War II and growth. We believe that conscious decisions were made subsequently which led to northward expansion of the city and to the development of an economy strongly dependent upon tourism. The resulting encroachment of a northerly expanding city towards an expanding tourist-oriented airport required responsible land use planning to avoid the foreseeable consequences of noise pollution in surrounding neighborhoods. Again, the problem has been defined by repeated studies and the computer-generated noise exposure maps recently subjected to validation by TransPlan. We withhold comment on the correctness and adequacy of this data until we have had sufficient opportunity to review it. Nevertheless, it offers a baseline for departure - a description of the scope and magnitude of the problem. The next and greater effort is to devise and put into place a reasonable, equitable and economically balanced noise compatibility program which will abate, reduce or mitigate the noise problem that has been identified and documented by the City, the FAA and their contractor.

Solution of the complex airport noise issue is dependent upon the cooperation of many parties who may have an interest in avoiding long, arduous, expensive struggles to resolve it. We are willing to explore any technical, administrative, operational, economic, political or financial tool available locally or used by others, and would welcome the chance to discuss such measures with anyone who would like to assist us. Our goal is to get an approved Noise Compatibility Program (NCP) as soon as possible which includes required actions described in this document. We note that it takes about six months for the FAA to approve a Noise Compatibility Program after a Noise Exposure Map (NEM) is acknowledged to be in compliance. We look forward to reviewing the San Antonio Noise Exposure Map, in compliance, in the near future. We recognize that an approved Part 150 Noise Compatibility Program is the primary vehicle for gaining approval of applications for federal grants for noise abatement projects. Given the national dimension of the airport noise problem, we are anxious that San Antonio be positioned for timely application for federal support - if it is needed. Surely other airport owners and operators who may be more aggressive will be competing for these grants. If San Antonio fails to aggressively pursue noise abatement actions, remember that others have done so and will certainly continue to do so with the inevitable result that more noise will migrate here.

It is important that San Antonio decision-makers become involved in the Noise

Compatibility Program approval process. Nationwide some airport authorities have acted voluntarily, some have even provided the forum (Denver, Minneapolis-St. Paul, Boston, New Orleans). Others, however, must be persuaded - by neighborhood groups, media and publicity, political action or even lawsuits to come to the table and try to negotiate lasting solutions. Airport noise has a recognized negative effect on the health and welfare of residential communities located close to major airports. We affirm our belief that it is the City of San Antonio's responsibility to protect the citizens adjacent to the airport, because presumably local governments have the most concern and responsibility for the health and welfare of those citizens. Furthermore, the City is legally responsible for the consequences which attend its operation of a public airport. So, for both moral and legal considerations, San Antonio's decision-makers must become involved with this issue. The City can and must set the rules for minimizing the unnecessary jet aircraft noise.

We conclude, therefore, that a local problem should first of all be tackled locally, and the solutions to San Antonio's noise problem must be tailored and designed to meet the needs of our particular airport environment, and must be achievable within current economical and political environments. Local jurisdiction for restricting uses of the city airport must not be relinguished to others merely to conform with some notion of a "standardized" approach to noise abatement. The problem is local and should be resolved locally to the extent possible. It is important to emphasize here that if an airport operator's noise abatement actions do not intrude on areas of federal pre-emption (safety, airspace and commerce), if they are carefully considered, if they actually impact on noise, and if they are not discriminatory - they will be upheld by the courts.

We believe the criteria for any element of a viable noise abatement program or any noise control strategy is that it should be safe, reasonable, equitable, achievable at no or little cost, and that any economic burdens be balanced. In 1976 FAA policy established the preference "that the costs of noise abatement be borne by users of air transportation, passengers and shippers." That policy preference is still valid to our knowledge. Undue economic burden must be balanced between that borne by airport users and that sustained by airport neighbors.

We recognize that expensive, long-term, capital improvement-type solutions are probably unrealistic in today's economic and political climate. Therefore, we endorse short-term, equitable, attainable noise control strategies that can be included in a Noise Compatibility Program (NCP) with little or no cost, and which balance the economic burdens between those who create the noise and those who are living under it. The recent U.S. Supreme Court decision favored those who hear and feel the noise and who see the loss of property values if their homes, churches, schools and hospitals fall within the noise footprint where the impact is too great for peaceful and tranquil use of their homes and facilities, both inside and outside.

We hope that TransPlan's completed study and Noise Exposure Map will be reviewed and approved quickly, after our review and a public hearing. We hope the conclusion of study effort is a signal of heightened awareness by City decision-makers of a long-standing and increasingly significant problem. We hope that it will serve as a springboard to a workable, realistic and fair noise abatement program. Now that we are in possession of facts, let us use them. Further appeals to emotions, public relations efforts or to conjectural philosophy would only serve to delay problem resolution.

Therefore, to the extent that the TransPlan Part 150 Study results coincide with the ideas and elements expressed herein, we endorse it. Otherwise we request that the study be amended to include this document as an attachment.

The Oak Park-Northwood Neighborhood Association hereby submits what it considers to be the critical and essential elements of noise control strategies to be incorporated in the approved Noise Compatibility Program (NCP) for San Antonio International Airport. These are the minimum acceptable actions and do not preclude additional actions either now or later. They should be used in combination with each other and any additional strategies which may serve to reduce or mitigate airport/aircraft noise. All of these noise control strategies have been identified for many years, and have been proven in practice in noise abatement programs tailored for other airports in the nation.

I.

CITY PROVIDE INCENTIVES TO USE STAGE 3 AIRCRAFT. This element of noise control strategy has been identified since 1976 when FAA policy stated that airport operators "can implement directly (the) establishment of landing fees based on aircraft noise emission characteristics ..." This strategy was reinforced by §2123 of the "Aviation Safety and Noise Abatement Act of 1979" which allowed the U.S. Secretary of Transportation to provide new technology aircraft incentives for Stage 3 aircraft. Then in December 1985 the strategy was endorsed again by Congress which instructed the FAA to report on "alternatives to provide incentives to air carriers to accelerate modernization (i.e., Stage 3 aircraft) of the commercial air fleet." A wide range of alternatives, including technological options, regulatory action to cut off Stage 2 operations, monetary incentives and penalties were to be explored. Five months later, in May 1986, the concept of "noise use fees," a special fee or surcharge based on the relative noisiness of different aircraft, was reported by the FAA to be in use at Hayward Air Terminal, California. Then, one month later, in June 1986, the City of Denver announced a major aviation noise agreement which limited Stage 2 operations and required that any new flights be with Stage 3 aircraft. The Denver airport will also impose noise-related landing fees. In February 1988, the San Francisco Airport Commission amended its regulations on Airport Noise Abatement to combine two approaches, both widely used now at airports around the country: (a) require air carriers to increase use of Stage 3 aircraft, and (b) limit the hours of operation for Stage 2 aircraft at night. Also, in February 1988, the Deputy Secretary of Transportation noted that the trend for the latter action, i.e., local restrictions by airport proprietors on Stage 2 aircraft, especially at night, was increasing. The foregoing indicates that incentives to motivate air carriers to change their fleet mix ratios to a higher percentage of Stage 3 aircraft is an old idea whose time has come for San Antonio. We concur with TransPlan's Recommendation #6 in its report dated May 31, 1988:

> "6. Greater Percent of Stage 3 Aircraft
>
> This assumes a policy is enacted which promotes a more rapid increase in the number of Stage 3 aircraft operating at the airport. The 1992 Baseline Case assumed that San Antonio would parallel the national trend which projected 43 percent Stage 3 aircraft. This alternative assumed that could be increased to 60 percent."

We also agree in principle with TransPlan's paragraph D. "Greater Percent of

Stage 3 Aircraft" contained in their evaluation of alternatives discussed on September 28, 1988. We leave open to negotiation the actual percentages of the fleet mix, which must be determined. We also concur with TransPlan's alternative F. B) which was presented on September 28, 1988.

> "F. Incentives for Airlines Introducing Noise Reduction Measures
>
> An incentive program should be implemented to encourage airlines to: ..., B) increase the percentage of Stage 3 aircraft in their San Antonio service fleet."

ACTION REQUIRED: The City to provide incentives for airlines/other users to route Stage 3/quieter aircraft in and out of San Antonio International Airport. This can be accomplished by structuring a two-tiered fee system. All schedules of usage, rental or franchise fees, and all service charges should be structured so that increased costs accrue for airport use by Stage 2/ noisier aircraft. The FAA declares that this "strategy (landing fees based on noise) encourages the use of quieter aircraft while producing additional revenue to offset noise induced expenses." For instance, other airports employ this strategy to determine how to allocate arrival and departure slots/gates. Preference in assignment of gate/slot position, and hence an economic advantage, is given to carriers who operate quiet Stage 3 aircraft. Although the gates at San Antonio do not either yield or deny an economic advantage because of airport design, the fees charged for renting these slots/gates can still be structured to give preference to Stage 3 aircraft. This particular variation of the strategy has been strongly supported by the National League of Cities. We would broaden the use of this strategy to consider the use of any and all financial, monetary, budgetary or tax incentives which would promote the use of quieter aircraft. This strategy is in line with FAA policy as to who should bear the cost, and is also in the best interest of the City and its citizens. We believe that a curfew enforced on Stage 2/noisier aircraft at night between the hours of 11:00 p.m. and 6:30 a.m. is also a valid incentive to promote noise reduction. Such curfews are now in use at Santa Rosa, California; Austin, Texas; Jackson Hole, Wyoming; San Martin, California; San Diego, California; and other airports around the country.

II.

THE CITY AND THE FAA PROVIDE MORE EQUITABLE DISTRIBUTION OF NOISE BY INCREASING USE OF THE SECONDARY RUNWAY TO 25% FROM THE CURRENT USAGE RATE OF 8%. This element of noise control strategy also has been long identified and is currently widely used throughout the nation as either a preferential or rotational runway system. The FAA policy since 1976 has allowed airport proprietors to propose these alternatives as operational noise control procedures. In December 1983, the FAA Part 150 process recognized runway selection as a basic noise mitigation strategy. We agree! In May 1986, the FAA reported rotational runway systems functioning as a noise control strategy at Boston, Denver, New York (JFK), Lancaster (PA), Omaha, West Palm Beach, Atlanta, Pittsburgh, Louisville, San Juan and Salt Lake City. Also, 139 airports were reported using preferential runway systems as a noise control strategy. Again, this is not a new idea and it is one that is widely used and tailored to specific airports. In June 1986, the Minneapolis Metropolitan Airports Commission (MAC) proposed an extension of the secondary runway as "one element to better distribute the air traffic more equitably." The concept of "distributional equity" was still being considered in February 1987

as MAC continued public hearings on this viable strategy to mitigate noise impact. In December 1987, the House of Representatives recognized and strongly endorsed the concept in its version of a bill that would double the funding for airport noise projects. The bill specifically withheld "funds from the Burbank-Glendale-Pasadena Airport until it adopts a plan to equalize its noise throughout the area surrounding the airport." In 1988 the FAA advised its air traffic controllers at Newark that whenever possible they were to take actions that would "spread traffic over a wider area and reduce flight frequency and therefore total noise over local communities." Also, guidance was "given to air traffic controllers that should help them more evenly distribute aircraft noise over the state." The foregoing is submitted to suggest that the noise control strategy and concept of equalizing the distribution of airport noise by rotating runway use is alive and well, and has been tailored for application at many airports in the United States. We do not believe that the current and forecast use of Runway 03-21, the secondary runway at San Antonio International Airport, is reasonable or equitable. We concur with TransPlan's Alternative #2 submitted on May 31, 1988, that recommended increased use of the secondary runway at San Antonio International Airport, except that we believe that an increase to 25% (rather than 20%) is reasonably equitable.

> "2. Increase Use of Runway 3-21
>
> This alternative assumed that air traffic control procedures would permit an increase in the use of Runway 3-21. Thus, 12 percent of the air carrier and commuter activity was shifted from Runway 12R-30L to Runway 3-21. This increased total air carrier and commuter activity on Runway 3-21 from 8 percent currently to 20 percent. General aviation activity on Runway 3-21 was increased from 8 percent to 15 percent."

We do not agree with the arbitrary elimination from consideration as a noise abatement alternative the strategies of equalizing, increasing use, or rotating use of runways submitted by TransPlan in September 1988. The reasons for the rejection of this important alternative have not been documented, to our knowledge, as required by FAA's 1976 policy. The FAA should at least require some minimum qualitative analysis from the City's contractor to justify its arbitrary elimination of a key recommendation it had made in its preceding report. We can only speculate as to the reasons for its rejection. If the reason is that more complaints may be generated, it should be noted that in August 1988 the GAO reported that "we have reservations as to whether the FAA has processes in place to make reasonable judgments about whether an airspace change will generate controversy and noise impact." If the reason is concern about use of military airspace: 1) Flag rank USAF officials have agreed to negotiate the issue, 2) for six months in 1986 no controversy arose because of use of Runway 03/21 100% of the time, and 3) in August 1988 the GAO reported that the FAA had begun plans in the Los Angeles area to establish new routes through military airspace, and plans with similar objectives are being formulated focusing on Chicago. A precedent has been established for working with the military on questions of airspace for many years, and a solution can be tailored for San Antonio with military cooperation.

On May 24, 1989, it was announced that a $9.5m project, funded by a FAA grant plus city airport revenue bonds, has been launched to reconstruct the secondary runway that parallels Wetmore Road. The project is in the design phase with construction to begin later this year. The City Manager has confirmed that there are no plans to increase the use of the secondary runway beyond the current 8% rate.

The following chart is provided for assessment:

USAGE RATE FOR SECONDARY RUNWAY

(R/W 03-21, SAN ANTONIO INTERNATIONAL AIRPORT)

8%	Current Rate
15%	Based on Wind Direction and Velocity
20%	Recommended by TransPlan 5/88
50%	Equitable Distribution
100%	Realized for at least 6 months beginning 3/86
25%	Reasonably equitable distribution AND GOAL!

It seems to us that to reconstruct a runway that is to be used merely 8% of the time, that has not been subject to usage, wear and tear, or subjected to damaging weather conditions such as those experienced in colder and wetter climates is lax stewardship of public funds. We submit that a $9.5m runway reconstruction project (extension should also be considered) can only be justified by increasing the use of that runway. Otherwise, merely resurfacing the runway SHOULD be more cost effective for the taxpayers. We recommend reconstruction and increased use!

ACTION REQUIRED: Provide more equitable distribution of airport noise by increasing use of the secondary runway from 8% currently to 25%. Continue the planned $9.5m project to reconstruct the secondary runway, but justify this large capital improvement by increased use of the runway.

III.

THE FAA AND AIRPORT USERS PROVIDE MORE EQUITABLE DISTRIBUTION OF NOISE BY INCREASED FLEXIBILITY FOR DEPARTURE AND ARRIVAL FLIGHT PROFILES. ACCOMPLISH THIS BY MINOR MODIFICATIONS AND CONTINUALLY VARYING CLIMBS AND TURNS WITHIN PERMISSIBLE DEPARTURE AND ARRIVAL FLIGHT ENVELOPES. These also are long-time identified, proven noise abatement procedures. This strategy involves a myriad combination of power settings, operational flight procedures, different aircraft/engine types, different airlines, and specific geographic locations to arrive at a long-lasting specific program for a particular local environment. Nevertheless, it is possible to accomplish as illustrated by the fact that by May 1986 the following noise control strategies were in place at the number of airports indicated:

- Displaced Runway Threshhold (24 airports). This restriction reduces the runway length available for arrivals and/or departures to minimize off-airport impacts.

- Maximum Safe Climb on Take-off (10 airports). Rapid climb to altitude to minimize take-off noise impacts on communities.

- Take-off Thrust Reduction (10 airports). Low-power climb to altitude to minimize take-off noise impacts.

- Informal Flight Operation Restrictions (102 airports). Any restriction which is not formally enforced by the airport, but requested as a procedure to limit noise.

- Local Pattern Restrictions (44 airports). Limitations on flying over noise-sensitive areas or facilities. The FAA used this noise control strategy in 1987 to disperse noise in the Newark area. For example, whenever possible, flights departing Newark were directed over random routes instead of a single route, thereby dispersing the noise over a larger area. In a further effort to reduce noise, especially during nighttime hours, Newark controllers would maximize the use of random routes instead of established ground tracks in order to disperse aircraft noise over a wider area. By allowing more flexibility within the departure profiles - controllers could direct flights along more varied paths within the official envelope instead of over the same narrow strip of geography time after time. The purpose of this strategy was to spread traffic over a wider area and reduce flight frequency and therefore total noise over local communities.

We concur with TransPlan's Alternative #1 submitted May 31, 1988:

"1. Thrust Cut-Back Profile

A thrust cut-back procedure was developed which in turn modifies the aircrafts climb profile. Specifically, the procedure calls for the pilot to reduce thrust at 1,000 feet above runway elevation, retract flaps, and accelerate to the zero flap safe maneuvering speed (Vzf). This mode is maintained until 3,000 feet above runway elevation when normal climb thrust is applied.

Due to the fact that this procedure cannot be used at all times for varying reasons, the noise run assumed pilot compliance 50% of the time. Thus, the thrust cut-back profile was applied to 50 percent of the Stage 2 aircraft operations. These procedures do not apply to Stage 3 aircraft."

We concur also in TransPlan's Alternative F. A) submitted September 28, 1988.

"F. Incentives for Airlines Introducing Noise Reduction Measures

An incentive program should be implemented to encourage airlines to: A) adopt the special thrust cut-back departure procedures for their Stage 2 aircraft, ..."

While we concur with the above TransPlan recommended alternative, we believe it does not go far enough.

ACTION REQUIRED: Broaden the scope of TransPlan's alternatives to include provisions for more equitable distribution of noise by increasing flexibility within the flight departure and arrival profiles. Using the myriad combinations of tools available, devise minor modifications and variations within the permissible flight envelopes so as to tailor aircraft/airlines procedures to mitigate noise specifically for San Antonio International Airport.

IV.

THE CITY PROVIDE AN AIRPORT/AIRCRAFT NOISE "HOT LINE" AS A TOOL TO REGISTER CITIZEN COMPLAINTS, AND TO EDUCATE RESIDENTS THAT JET AIRCRAFT NOISE CAN BE REDUCED IF THERE IS A CONCERTED EFFORT BY THEM TO GET OUT AND BE COUNTED. The data acquired from the City "HOT LINE" should then be used to develop a

questionnaire to perform a community attitudinal survey for the City. The surveys should be continued to monitor progress and check results of the approved Noise Compatibility Program (NCP) for San Antonio International Airport.

Denver has had a "HOT LINE" since 1980 and Chicago has had one since 1982. Many other airports have noise abatement offices who employ this strategy, including San Diego, Minneapolis, and San Francisco to name a few. By far one of the most useful "HOT LINES" to be developed is the one used by the City of South San Francisco, and we strongly urge the City of San Antonio to adopt the same approach as the cornerstone of a vital noise compatibility program which will involve community residents, civic organizations and city leaders in efforts to reduce or mitigate noise. The City of South San Francisco sent a double-sided post card to every resident in the City showing the number to call for jet aircraft noise complaints along with two adhesive labels with the "HOT LINE" number on them for telephones in the homes. We would modify this only to insert after "every resident" the words "living within the Ldn 65 noise contour." Knowing the number to call and understanding that it is a community-supported effort made a tremendous difference in response and information available both to the airport and to South San Francisco. The text of the post card should read:

> "Citizens wishing to register their complaints regarding excessive aircraft noise should contact the San Antonio International Airport Noise Abatement Office. This office should be contacted each time you feel the noise level becomes unreasonable.
>
> Although immediate corrective actions may not be possible, data maintained by the Noise Abatement Office is considered by the airport in its planning process. Please assist the airport and our community by calling and registering your complaints. The attached labels may be applied directly to your phone or other convenient location for quick reference. Signed, San Antonio City Council."

ACTION REQUIRED: The City's Aviation Department Noise Abatement Officer who is primarily responsible for public relations activities with the community should adopt the "HOT LINE" project as described above, and use it to conduct research and profile studies leading to the performance of community attitudinal surveys which will finally make possible true citizen/community participation in resolving the airport noise issue.

SUMMARY

A combination of the four noise control strategies described above are the minimum essential prerequisites of a fair, reasonable, equitable and economically balanced Noise Compatibility Program (NCP) for San Antonio International Airport. There is nothing to preclude adding others as they are identified and tailored for local use. We need an approved NCP which includes these elements:

1. Stage 3 incentives.
2. Rotation of runway use to equalize noise distribution.
3. Modifications and variation of flight procedures to equalize noise distribution.
4. City "HOT LINE" for airport noise complaints leading to community attitudinal surveys.

As airport neighbors, we are encouraged by the recent landmark U.S. Supreme Court decision in the May 1989 Chicago case which supports neighborhood efforts to reduce airport noise. We hope that San Antonio benefits from the legal lesson learned. Citizens elsewhere have successfully used legal recourses such as complaining of a continuing nuisance in small claims courts, and class action inverse condemnation suits in state courts and federal courts. These legal actions expressed their determination to get local and federal government officials to redress their grievances about clearly unacceptable noise levels. We will not hesitate to use legal options available to us if measures suggested by us and used by others are not established. We sincerely believe that what we propose is reasonable, and we are prepared to use all legal, economic, moral and political means available to achieve what we consider fair and equitable treatment regarding the airport/aircraft noise problem at San Antonio International Airport.

We offer two final thoughts in closing. First, for airline passengers in the audience, please remember this. If you have a choice, demand to fly on quiet airplanes. Consider the fact that the quiet airplanes are also the safer ones because they are newer! Second, and finally, we would like to remind airport neighbors and taxpayers, the airport owner and operator, FAA officials who must approve the noise abatement program and the airlines and others who use the airport of this - in the words of British historian Thomas Carlyle: "There can be no acting or doing of any kind, till it be recognized that there is a thing to be done; the thing once recognized, doing in a thousand shapes becomes possible." The thing to be done has been recognized. Let us find ways to do it.

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

September 15, 1989

SEP 18 1989

Mr. Philip Fryberger
Oak Park-Northwood Neighborhood Assn.
P. O. Box 17093
San Antonio, Texas 78217

Dear Mr. Fryberger:

Thank you for the comments on the San Antonio Noise Compatibility Study which you presented on behalf of the Oak Park-Northwood Neigbhborhood Association to the Airport Advisory Committee at its August Meeting.

As you requested, they will be appended to the report and forwarded to the Federal Aviation Administration which has the responsibility for making the final determination.

Your truly,

Michael J. Kutchins, A.A.E.
Director of Aviation

MJK:GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

COMMUNITY ADVISORY COMMITTEE MEETING

AUGUST 15, 1989

It came as a surprise to me yesterday while reading a newspaper to learn that this meeting was open to the public. The Community Advisory Committee members all received the Director of Aviation's letter dated December 3, 1987, which stated, "Due to the number of community groups which will participate on this committee, it is requested that each group appoint a single spokes-person to express the views of the group. This will insure that the meetings are productive working sessions which focus on the concerns of all involved." We have been adhering to these rules and telling our members they should not and could not participate in these meetings. I want to thank those members of the Oak Park-Northwood Neighborhood Association who have taken the time and trouble to come out here today, and regret that we were informed only through the media that this meeting today was to be a public one. We hope that similar miscommunications do not occur in the future, but in any case, we are ready, willing, and able to participate in the process of developing a workable Noise Compatibility Program either as members in productive working sessions or at public meetings.

I have been allocated five to seven minutes on this busy agenda, so what I have to say won't take very long. I am here for the following purposes. First, I hope to receive copies of the results and findings of the Noise Monitoring effort. Secondly, I hope to receive copies of the final Noise Contours and Noise Exposure Maps, and third and most importantly, I would like a copy of the draft Noise Compatibility Program.

After we have had an opportunity to review all of this information presented here today, we intend to submit our thoughts to the Aviation Advisory Committee, the City Council and at the Public Hearing which is required

by public law. In other words, we will make any suggestions and recommendations through appropriate established decision-making channels. We will request that those comments and our position be included as an appendix to the draft Noise Compatibility Program and the Part 150 TransPlan Study.

Since November 1987, when this follow-on study began, we also have been seeking constructive noise abatement alternatives. We have developed some thoughts along the lines of what we consider to be minimum-essential or critical items which must be included in a responsible Noise Compatibility Program. We are currently developing those ideas and will be ready to present them at an appropriate time - after we have had an opportunity to study and review the information which we receive today.

We recognize the current budget problems being faced at all levels of government - federal, state and local - and we know that any realistic approach to resolve the aircraft-airport noise problem at San Antonio International Airport cannot be based on expectations of receiving any significant funding. We have, therefore, focused on noise control strategies which have already proved to be effective and that can be put into place with minimum or no costs. The strategies we are considering have been successfully used by other cities having noise problems similar to the ones that we face. We have no doubt that their application can be tailored to meet San Antonio's specific requirements, and most of them have already been recommended or approved by the Federal Aviation Administration (FAA). Cooperation and compromise must be forthcoming from all parties, including the City, to put into place an effective Noise Compatibility Program which will abate or mitigate airport/aircraft noise impact on neighborhoods.

I hope to leave this meeting with four things. First, I would like copies of the data developed by TransPlan, that is: the results and findings of the Noise Monitoring effort, the final Noise Contours and Noise Exposure Maps - and more importantly, a draft copy of the Noise Compatibility Program. Without this information we cannot make informed comments as members of this committee. Secondly, I would like a copy of the City's actual schedule of their review, acceptance and approval process for the above data. Third, I would like a projected schedule from the FAA showing their acceptance, approval and implementation process for a final Noise Compatibility Program for this City. Fourth, and last, I need to confirm the date, time and place of the next City Aviation Advisory Committee meeting, which I understand is to be held:

Date:

Time:

Place:

Thank you very much.

Philip H. Fryberger
Chairman
Oak Park-Northwood Neighborhood Association

The SUNDAY EXPRESS-NEWS, :

SAN ANTONIO, TEXAS
Sunday, September 24, 1989

PUBLIC MEETING AND PUBLIC HEARING NOTICE

The City of San Antonio (Aviation Department) will hold a Public Meeting and a Public Hearing beginning at 7:00 p.m. on October 24, 1989, at the Holiday Inn, 77 Loop 410 NE, San Antonio, Texas. Purpose of the meetings is to present the Noise Exposure Maps and Noise Compatibility Program and to receive public comments concerning the Federal Aviation Regulations Part 150 Noise Compatibility Study for San Antonio International Airport.

All interested parties are invited to attend and express any comments they may have concerning this study.

Copies of the noise Exposure Maps and Noise Compatibility Report will be available for public review at the following locations beginning October 9, 1989:

Office of the City Clerk
City Hall

Main Library
203 South St. Marys Street

Oakwell Branch Library
4134 Harry Wurzbach Road

San Pedro Branch Library
1315 San Pedro Avenue

Cody Branch Library
11441 Vance Jackson Road

Department of Planning
Main Plaza Building
114 W. Commerce

Department of Aviation
Office of the Director
9800 Airport Boulevard

Department of Aviation
Planning & Engineering Div.
2nd flr., 9700 Airport Blvd.

Department of Aviation
Noise Abatement Office
1st flr., 9700 Airport Blvd.

/s/Norma S. Rodriguez
City Clerk

Public Meeting and Public Hearing

SAN ANTONIO INTERNATIONAL AIRPORT
FAR PART 150 NOISE COMPATIBILITY STUDY

October 24, 1989
7:00 p.m.

Holiday Inn
77 Loop 410, N.E.
San Antonio, Texas

AGENDA

6:30 p.m. Registration of citizens wishing to speak begins at the entrance to the meeting room and continues until 8:30 p.m. Citizens will be called in the order in which they are registered. As your name is called, you may come forward to the microphone and state your name for the record as you begin. All statements will be recorded and made part of the official record of the hearing. Written statements may be submitted to the head table in lieu of, or as expansions of, oral statements.

TIME LIMITS FOR PRESENTATIONS

5 minutes for individuals

15 minutes for organizations

7:00 p.m. Public Meeting called to order

Slide presentation -- Noise Exposure Maps and Noise Compatibility Program

7:45 p.m. Question and Answer session

8:30 p.m. Public meeting adjourned

8:35 p.m. Public Hearing called to order

Oral comments from citizens

Written comments will also be received by the Department of Aviation, 9800 Airport Boulevard, San Antonio, Texas 78216 through November 10, 1989.

Public Meeting and Public Hearing

SAN ANTONIO INTERNATIONAL AIRPORT

FAR PART 150 NOISE COMPATIBILITY STUDY

October 24, 1989

7:00 p.m.

Holiday Inn

77 Loop 410, N.E.

San Antonio, Texas

COPY

PUBLIC MEETING

MR. LABATT: I'd like to call the meeting to order. Good evening, ladies and gentlemen. My name is Weir Labatt and I'm city councilman for District 9. To begin this public meeting on the Airport Noise Compatibility Study, I would first like to introduce the head table.

To my left is my colleague on the City Council, Councilman Jimmy Hasslocher, representing District 10; Don Harris is with the Federal Aviation Authority; and Richard Hatch is with the Airport Advisory Committee, and he is the Chairman of that committee.

To my right is Alan A'Hara with TransPlan, and he will be making a presentation shortly. And to his right is Lisa Mastropieri, also with TransPlan. I would also like to acknowledge the presence of two other people that are here tonight. Bill Donahue is the Assistant City Manager and Mike Kutchins, who's the Director of the Aviation Department.

The purpose of tonight's public meeting is to present the components of the Noise Compatibility Study and the Noise-Exposure Maps for San Antonio

International Airport.

Though not required by the FAA, this study was undertaken in order to mitigate aircraft noise impacts on the surrounding community. During the presentation, you may have questions, but I would ask that you please hold them until after the program when there will be time for a question-and-answer session.

If you would like to speak at the public hearing -- Now understand that there's a public meeting first, with a presentation from TransPlan, questions and answers about his presentation. We will close that public meeting and we will go directly into a public hearing.

If you'd like to speak at the public hearing, you need to sign the register at the door; and, if you have not signed that register, we'll keep the sign-up sheet at the entrance open until the end of the public meeting. But once the public hearing portion begins, no more names will be added to those that are allowed to speak.

Individuals that are signed up to speak will be allowed five minutes each for their comments, and organizations will be allowed 15 minutes per organization. At this time, I'll turn

the program over -- Mayor Cockrell.

MAYOR COCKRELL: You go ahead.

MR. LABATT: Very, very pleased that Mayor Cockrell is with us and obviously she needs no introduction from the hand that she's already received; but, Mayor, thank you very much for being with us tonight.

At this time, I'll turn the program over to Alan A'Hara, who is with TransPlan, who did the study and, Alan, let me turn it over to you at this point. I think some of us at the head table are probably in front of the slide projector. Jimmy, maybe you and I had better move.

MR. A'HARA: Good evening to everybody. As was mentioned, my name's Alan A'Hara. I'm the Director of Airport Planning for TransPlan, Incorporated. We were contracted by the City of San Antonio, as sponsored by the Federal Aviation Administration through a federal grant, to prepare what is known as an FAR Part 150 Airport Noise Compatibility Study. The term "Part 150" is simply a term that the FAA uses to refer to the federal program that sponsors such noise programs.

The overall purpose of the program is to, number one, ascertain the existing noise situation

surrounding the airport within the airport communities and look five years into the future at what that noise may be and what areas around the airport are impacted by noise and, then, we hope that through a development of our noise compatibility program that may be enacted by the City, we can reduce or mitigate, to the extent possible, the noise impact that the residences are receiving in areas surrounding the airport.

There are two basic components of the overall program. You'll hear the item "NEM" -- noise exposure maps. I'll be showing you those maps, you'll see the area which is impacted by what we term "incompatible noise levels" today, based on the type of aircraft and levels of aircraft activity that are going on, into, and out of the San Antonio International Airport.

We will then show you, based on our projections for future activity at the airport and growth here in San Antonio, what type of noise levels can be expected in 1993 or five years into the future.

So, you'll be looking at an existing as well as a future noise-exposure map.

I will show you a third noise-exposure map

towards the latter part of the presentation and that is more of a target or a goal map that we would all hope can be obtained through proper implementation of the Noise-Compatibility Program.

That program is basically the second half or the second component of this study process and in that program you'll see there's a series of steps -- some of which have already been undertaken by the City and are in place and others that may, in fact, be enacted by the City of San Antonio.

The purpose of this meeting here this evening is to get public input, hear the public's comments with regard to our study, its findings and some of the recommended programs.

(Whereupon, a slide presentation was shown)

Let me explain, again, some of the process we went through to carry out Part 150 Noise Compatibility Study. I may preface by saying that this study is regulated by the Federal Aviation Administration; there are very stringent guidelines that we must follow. The FAA, present here tonight, has been involved throughout the study process to assure that we adhere to these guidelines; and eventually the study and The Noise-Compatibility

Program will be submitted to the FAA in Washington for their official approval.

The study itself, as I said earlier -- we do activity forecasts, of course, as part of the continuing airport master plan process; the Department of Aviation is always trying to project what activity levels will look like in the future for the purpose of additional airport facilities that may be required; we looked at those activity forecasts primarily for five years into the future or the year 1993. Those aviation forecasts, those activities, are then used to generate these noise-exposure maps.

Now, the maps you'll see is what we refer to as noise contours. They are generated by a computer model. This computer model has been developed over a period of years, has been constantly updated and improved, and the most recent model available, known as the FAA's Integrated Noise Model, was used to generate or simulate the noise exposure that's going on around the airport and those that are used to generate the Noise-Exposure Maps.

We then looked at a number of noise-abatement alternatives. Once we had an idea

of just what the noise impact situation was like around the airport, we looked at various alternatives that could be enacted to possibly mitigate, minimize or eliminate, to some degree, noise impact in those various areas around the airport property.

"Land-use alternatives" were another term. Those are things that can be done by the City out in the local communities in the form of zoning, land-use alterations, things of this sort, that can be done on the local level within each individual community to help minimize the noise impact. So another series of land-use alternatives were analyzed and explored.

And, finally, out of that alternatives analysis came the eventual Noise Compatibility Program. As you can see, the program culminates, for the most part, with public input and public comment here this evening.

I might also add that we did have a technical advisory committee that followed this study every step of the way. We had a series of periodic briefings throughout the study, and that consisted of more on the technical side -- the FAA, the Air Transport Association, which represents the

airlines out of the airport. All officials from the local military bases were present on our technical advisory committee, and they helped guide -- monitor the study from a technical aspect throughout.

We also had a community advisory committee which we met with, oh, in the neighborhood of half a dozen times, periodically, throughout the study. This committee was made up of representatives from the various homeowner and neighborhood associations surrounding the airport.

So, that community advisory committee was periodically updated and had the benefit of input into the study as it developed and as it was prepared. I'm sure I don't have to worry any of you as to where you live. Obviously, this is the City of San Antonio (referring to slide).

One of the things I wanted to try to geographically acclimate everyone, for those of you who may not be quite versed on just where some of the other surrounding airports, in particular, the military bases are present around the airport, and one of the problems we encountered throughout this study, one of the obvious first things we look at are the possibility of changing the patterns or the direction in which the aircraft fly.

And I can explain later in more detail; some of those problems were encountered in this area due to a very congested air space area that exists here in San Antonio due to the presence of Kelly Air Force Base, Randolph Air Force Base and, of course, Stinson Municipal Airport on the southside of the City.

So, the location and the congregation of airports within the City of San Antonio makes for one of the more complex air space systems in this area of the country.

To zero in on the San Antonio Airport a little bit for those of you who are not familiar, you'll hear us refer this evening about Runway 12R-30L or Runway 12-30, that being the runway running from the top left of the screen to the bottom right of the screen, the longer of the two main runways at the airport and the dominant-use runway at the airport, based primarily on the regional air space here in this area.

You'll hear it referred to as the Crosswind Runway or Runway 321. That runway is -- basically the secondary or the Crosswind Runway -- used a lesser percentage of the time in comparison to the main Runway 12-30.

To back up just a little bit, and to take this in perspective, what you see by the red lines are the flight tracks, primarily the arrival and the departure flight tracks of airplanes leaving San Antonio.

The important thing to note with regard to the patterns and the paths that the aircraft take out of the San Antonio International is the fact that approximately 89 percent of the aircraft departing San Antonio depart on Runway 12-R; and, therefore, it departs out via one of the four tracks you see heading to the southeast.

As the predominant flow of traffic out of the airport, as you'll see later, obviously, the majority or a good part of the noise impact is experienced southeast of the airport. As I said, 89 percent of the traffic leaving this airport leaves in a southeasterly direction.

This is the first in a series of noise-exposure maps. The contours you see on here are what we refer to as noise contours. What the computer basically does is it simulates for us what areas of airport property are encompassed by areas that are determined to be of incompatible noise levels. The Federal Aviation Administration, the

Department of Protection Agency, as well as the Department of Housing and Urban Development, have established a threshold or an acceptable noise limit with respect to compatible noise levels for residential areas and for sensitive land uses, those being schools, hospitals, things of this sort.

We're concerned with the 65 Ldn noise level and just to try, and without getting too technical too quickly define "Ldn," because I'm sure you've all seen it in your handout many times, and you'll hear it throughout the evening. It is basically a noise measurement term. I'm sure many of you are familiar with the term "decibels." Ldn is a form of noise measurement very similar to decibels. What it does do is it takes a 24-hour cumulative average of noise impact out in the community. So, we will deal with, primarily, the level of 65 Ldn. That's that threshold that the Federal Government has established as compatible, versus incompatible, with residential and other sensitive land uses.

The contour which is made up of the green line surrounding the airport property and the runways, everything within the 65 Ldn contour, the green line you see on the map, is inside 65 Ldn;

and, therefore, it's the area we're concerned with; it's the area we're looking at; and it's the area that the program attempted to reduce or minimize. Those are the areas that are being impacted by the noise levels.

This probably looks very familiar to you, and it is, but what we found was, when we ran the noise contour, a projected noise contour, five years into the future, looking at despite the fact that there will be continued growth here in San Antonio and probably increase in activity at the airport as a result, the noise contour is expected to essentially stay the same in the next five years. So, that was beneficial to us, in the fact that we will not necessarily have an increase in noise, despite an increase in activity. Of course, there are more and more future generation -- you'll hear it referred to as Stage 3 aircraft -- more and more of the newer, higher-technology aircraft that the airlines are beginning to purchase quite rapidly in recent months, and these newer aircraft are expected to come more and more into being and more and more into service here at San Antonio.

In turn, it has a tendency to offset any increase in noise and will continue to beyond the

five-year period as the majority of the older, noisier aircraft are phased out, simply as a result of age or economics as the airlines see fit.

But, basically, this was our base-line contour. If nothing is done or nothing is enacted in San Antonio, the noise situation, the impact situation off the airport will not change as evidenced by the 1993 noise-exposure map.

Let me show you the noise contour on a land-use map. What we do is we overlay this noise contour on the latest city-planning land-use map. We're concerned primarily with the areas in the light and dark blues. These areas are residential in nature. The remaining colors point out to us big and open-park land as well as commercial and heavy industrial-type land uses within the airport vicinity. But you can see, primarily, those areas of light blue and dark blue being light- and high-density residential areas within that 65 Ldn contour line, the areas that the program took on, looked to mitigate, and looked to minimize.

Once the noise contours were generated -- and it was really something that came as a result of our periodic committee meetings or advisory committee meetings -- was the possible need to do

actual noise monitoring or put noise measurement equipment out in the neighborhoods for a period of time and see exactly what type of noise levels were being experienced out in the neighborhoods and use that information to validate or confirm what the computer told us with respect to these noise contours.

We did carry out a two-week noise-monitoring program where microphones were placed at various locations surrounding the airport, at various schools in the neighborhood and other locations in an effort to validate or confirm the location or the position of noise contours and, in turn, validate our computer model and our computer run.

For the most part, the noise monitoring system -- noise monitoring program was successful; it did satisfy us; it satisfied the FAA with respect to confirming and validating the noise contours that were generated by the computer.

So, actual noise motoring was conducted in an effort to confirm the maps and validate the maps prior to us moving on into the development of any noise compatibility program, these being the noise monitor locations. And you can see that we located

them strategically or along the various noise contour lines, again, in an effort to validate and confirm their position.

We, then, went into our -- as I said earlier -- our alternatives evaluation. And, without listing all of those alternatives -- In fact, I believe all of those alternatives are listed in the small summary report that was provided to you when you entered. But we did start out within the neighborhood of 25 alternatives and all sorts of alternatives, from whether it was physical airfield alterations like runway location or runway-length type of thing or whether it was out in the neighborhood, whether it was zoning changes, land-use pattern changes and things of that sort.

We looked at a number of alternatives. Those that basically came out of the alternatives evaluation -- and we went through quite an extensive evaluation and quite an extensive -- quite extensive periods of discussion with both the technical and the community advisory committees. And you can see the various noise-abatement or noise-mitigation actions that came out of our alternatives evaluation process.

Basically, these are the programs that

will make up the Noise-Compatibility Program. Here they are in the form of the Noise-Compatibility Program. And we've tried to set these up in such a manner to illustrate to you the various agency responsibility that's involved.

Obviously, the City of San Antonio, of course, being the sponsor of the study, a number of these actions will be carried out through the Department of Aviation's Noise Abatement Officer. The establishment of that Noise Abatement Officer is one of steps we're looking at in the Noise-Compatibility Program. That Noise Abatement Officer has been brought on board by the Department of Aviation and is in place, and has been in place for a period of months now, within the Department of Aviation. So, that being one of the steps that has already taken place here in San Antonio, and it is really a stepping stone or a starting point, because there is now a Noise Abatement Officer or a particular individual to oversee the implementation of the majority of the remainder of the program.

Creating a formal noise-complaint monitoring program, something that is done here at the airport now and that will continue -- again, in more of a formal format through the new Noise

Abatement Officer, people in the neighborhood that wish to call in noise complaints can, in fact, do that, and they will be formally logged and formally recorded by the Department of Aviation -- continue what we call a standard-thrust cutback procedure. Some years back the Federal Government enacted noise legislation nationwide, and there are particular noise abatement departure procedures that the airlines are asked to follow when they can follow it and not risk safety or any local airspace conflicts.

The airlines are conducting noise -- this noise abatement, standard noise abatement-type departure where they reduce power by a certain percentage, once they gain enough altitude and then re-apply that power and continue their climb, once they're further out and higher above the neighborhoods.

This program looks to urge the airlines and ask the airlines to continue that noise abatement departure profile. Continue the current restrictions on engine run-ups on the airport. And a certain percentage of the noise complaints that the department receives are those that stem from the need of the airlines and other aircraft operators on the airport to run up their engines and test their engines periodically. There's currently a policy in

place by the Department of Aviation for when that can be done based on time of the day and, also, where on the airport it can be done, and we are looking for that program to continue and be monitored accordingly in the future.

The key alternative that was selected and incorporated into the Noise-Compatibility Program is hopefully the increased use of the Stage 3 aircraft. As I mentioned earlier, future-generation quieter aircraft are now rapidly coming into the system, the airlines are buying new aircraft at a greater rate than they ever have before, and the Department of Aviation has met with the airlines, and we have urged the airlines to attempt, to the best of their ability, to increase the use of those quieter aircraft here at San Antonio International.

Based on the national trend of these newer quieter Stage 3 aircraft versus the phase out of the older Stage 2 aircraft, we were able to set a target for five years from now on the percentage of flights out of San Antonio that can be conducted with the Stage 3 aircraft. If, in fact, that target or that goal is reached, I'll show you in just a moment some of the noise impact results or benefits that can be obtained if, in fact, that increased use of Stage 3

aircraft at the airport can continue.

Noise monitoring. As I said, we did a noise-monitoring program, a short-term noise-monitoring program through this study process and another option that can be carried out as part of this program is to do a continuous noise monitoring type of program on a periodic basis, again, through the Noise Abatement Officer with the use of proper noise equipment to periodically go out into the neighborhoods, spot check the noise and monitor, in the field -- actually out in the neighborhoods -- monitor the effectiveness of the Noise-Compatibility Program over the coming years and alter it or adjust it if need be. It's a way of going out and monitoring the actual effectiveness of the Noise-Compatibility Program. So, a noise-monitoring program is one of the steps that can be carried out through the Noise Abatement Officer and the Department of Aviation.

And, finally, a pilot advisory program. And this is really more of an awareness -- an airport-user awareness program. Department of Aviation does meet with the tenants of the airport who own and operate aircraft on a periodic basis and to keep them informed of the fact that there are

noise-sensitive areas off the airport and that they carry out proper procedures and proper flying procedures to minimize that noise when possible. So, keeping the pilots and the airport users properly advised of the fact that noise-sensitive residential areas exist around the airport is another positive step towards mitigating the noise.

Moreover, on the land use planning side, are those steps that can be carried out from the City level with respect to land use and zoning, a comprehensive land use and zoning plan. One of the major benefits of now having this study in place -- or once it's completed, adopted by the City and approved by the FAA, having this study in place, the City now, through its planning department, now has a document to use and assist in guiding their continuous land use planning and zoning efforts in areas around the airport and the noise impact on those particular lands and those particular parcels of land can now be cross-checked against the type of use that the City foresees for certain areas of property in the future. So it will be a valuable planning tool for the City from the standpoint of future land use and zoning changes.

Acoustical treatment of those eligible

buildings, part -- One of the major items of the Part 150 Program, if I did not say earlier, the formal adoption and acceptance of a Part 150 program is it provides federal money to the City of San Antonio to carry out various noise abatement or noise mitigation option, federal grant moneys that are available through an aviation-user trust fund.

That money can be used -- one of things that it can be used for is the soundproofing and insulation of public buildings or residences throughout the neighborhood. And this is so that the City has the option of embarking on a soundproofing program or an acoustical treatment program in schools, for example, that exist within the 65 Ldn noise contour, and we did identify each of the schools and other sensitive sites that fall within that contour. So those schools, as an example, would be eligible for federally funded acoustical treatment and soundproofing-type insulation.

A disclosure ordinance could be enacted. This is the type of program that would let the homeowners -- the home buyer, I'm sorry, aware -- make that home buyer aware of the fact that the home is, in fact, in a noise-impacted area, a noise-sensitive area and make the homeowner or home

buyer aware of the fact that there is an airport nearby and fully disclose just what, in fact, exists in the neighborhood prior to the purchase of a home. This type of disclosure or ordinance would be under the Noise-Compatibility Program.

And, then, finally, a purchase assurance program, and I know there's possibly been misconstrued mentioning of massive land acquisition and buying of all the areas surrounding the airport by the City and through the Department of Aviation. There is not, obviously, a massive land acquisition program that can be carried out in a densely populated area like this, but we can carry out a purchase assurance program and that is the fact that the local homeowners are, in fact, in a high-noise sensitive area, they don't wish to reside within that noise-impact area any longer and assurance can be brought on that would assure them their home could, in fact, be purchased by the City with federal noise abatement monies for the purpose of taking that home and converting it into more of a noise-sensitive land. So, a purchase assurance program, as opposed to a massive land acquisition program, is part of this noise-abatement program.

And, finally, a major component in this

study to allow this study to continue on. This is the type of thing that has to be implemented, it has to be constantly monitored. If the book is closed on it, it's put on a shelf, it will really have no impact. It's the type of program that has to be implemented and has to be constantly monitored on a regular basis. The establishment of a noise abatement or noise advisory committee is something that we would propose under the noise-compatibility program and, in time, a process for establishing that committee and selecting its members and keeping it to a functional, workable size is something that could be pursued under this program.

This is what we've termed the NCP contour or if, in fact, we can't implement the noise-compatibility program, we can reduce the noise impact area. This is the noise contour that's generated if, in fact, we take the noise-compatibility program and put it into the computer. With that increased target goal of increased future, quieter aircraft into the system, into San Antonio, it can, in fact, reduce the noise contour.

To make it evident to you a little better in terms of numbers, you can see, currently, we're

looking at just in the neighborhood of 2,500 acres of residential property currently located within that 65 Ldn line or that noise-impact area. That relates to in the neighborhood of 37,000 residences within that area. Implementation of the noise-compatibility program with those targets and goals that we can establish for the five-year period could reduce that impact by in the neighborhood of 12,000 residences or reduce the contour and size to where it would only envelop about 1,700 acres of residential and more in the neighborhood of 25,000 people or residences. So this is what we're looking at as a target to reduce or minimize the noise impact, cumulative-noise impact in the neighborhood.

As you may or may not be aware, as part of this public hearing process, the draft Part 150 study, and I might highlight that it is still in the draft until it is commented on by the public and reviewed by all those agencies, has been available for your review for approximately the last two to three weeks at these various locations and I might add that for the foreseeable future, until such time that all the proper agency reviews and what have you are conducted, these studies will continue to be available at these locations and you're more than

welcome to look at the study and comment accordingly.

If we can bring up the lights, I'd be happy to address questions.

END OF PUBLIC MEETING

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Question-and-Answer Session

MR. A'HARA: May I add that we have three microphones: one on each of the end aisles, one in the center aisle. I would ask proper questions be addressed from those microphones.

MR. LABATT: I would like to make one other comment, if I could, please. We'd like to try to hold the question-and-answer session before we go into the formal public hearing. It's now 7:35. We'd like to be able to close that off at 8:00 o'clock if at all possible. Hopefully, we cannot ask repetitive-type questions, but if you would go ahead please.

MS. O'CONNOR: My name is Cynthia O'Connor. I had a question on the 1993 noise contour that you show decreasing by, you know, maybe 20, 30 percent by increasing the number of Stage 3 aircraft. Is that a short-term kind of thing? When we get to 100 percent Stage 3 aircraft and the volume is still going up, does that mean the contours go back up? And how long would it take to get to 100 percent even under your best, you know, best situation kind of estimates you've used?

MR. A'HARA: The question is with regard

to the 1993 target or goal contour and if in fact the increase of Stage 3 aircraft that are contributing to the reduction in the noise contour, will that continue or will it eventually reach a level of no further improvement. Stage 3 aircraft versus Stage 2, I might add, are significantly quieter. Stage 3 are significantly quieter than the Stage 2. We have run -- although they weren't presented here tonight -- As part of the airport master planning process, we ran a noise contour for 20 years into the future and just recalling from memory, I would venture to say that that contour reduced in the neighborhood of 60 to 70 percent in the area impacted. At some point in time there is not a deadline imposed by the Federal Government, although there's been attempts to establish some type of deadline for the airlines to retire their Stage 2 older aircraft, okay, that has not yet come about and the feeling is that it probably will not come about strictly due to economics. But, there is a movement, a rapid movement by all of the airlines, they are purchasing literally billions of dollars worth of these Stage 3 aircraft and I would see the entire Stage 2 fleet or the older, noisier aircraft being retired somewhere in the neighborhood of the

next ten years or so.

But like I said, we ran the 20-year contour for the purpose of the master plan that assumed all Stage 3 aircraft and the noise contour was reduced. No, the frequency with respect to the noise made by the Stage 3 aircraft is far from proportional. You can take in the neighborhood of, oh -- and Lisa can correct me if I'm wrong -- but you can take in the neighborhood of anywhere between 15 and 20 operations or take-offs by newer Stage 3 aircraft to make the equivalent amount of cumulative noise in a single operation by an older aircraft would. So, it's really magnifying the reduction in noise and it, by far and away, offsets any increase in activity.

UNIDENTIFIED SPEAKER: I have three questions for you. Who on your advisory committee lived in the 75 decibel zone, who will enforce compliance with the monitoring program and what penalties will be enforced if they don't comply with your monitoring program and who did you talk to in the airline industry that determined that the airline industry would discontinue service or cut back service to San Antonio if there was a demand by asking them to use Stage 3 aircraft?

MR. A'HARA: Would you introduce yourself for the record please?

MR. HALL: LeMoyne Hall.

MR. A'HARA: And I might also ask that you stay at the mic for a second so I can get the three questions in line. First off, with respect to our advisory committee and your question was: Who was represented on that advisory committee?

MR. HALL: No. I asked who lived in the 75 decibel zone.

MR. A'HARA: I don't know of any particular individuals personally that live within the 75 Ldn zone. The community advisory committee was represented by --

MR. HALL: You mean those that had to listen to the noise weren't represented on that committee?

MR. A'HARA: Sir, there was a long extensive process gone through, all of the surrounding neighborhood and homeowners associations from the immediate airport boundary on out beyond the 65 Ldn contour were invited to participate and we had quite a good-size group that participated throughout the study.

MR. HALL: Do you want the other questions

again?

MR. A'HARA: Yes. I'm sorry.

MR. HALL: Okay. Who will enforce the compliance with the monitoring program and what will the penalties be?

MR. A'HARA: Okay. With respect to the monitoring program, we envision that monitoring program being carried out for the purpose of -- for the purpose of monitoring the effectiveness of the noise-compatibility program. Is the noise situation improving? Is the noise impact reducing? Is the contour pulling in or reducing in size as time progresses? We do not envision the noise-monitoring equipment to be used in any type of enforcement in that.

MR. HALL: So there will be no action taken on that one?

MR. A'HARA: There's no grounds for any type of enforcement.

MR. HALL: All right. And who did you talk to to determine that the aircraft industry would discontinue flights or cut back on their flights to San Antonio if we asked them to enforce Stage 3 aircraft and noise cut backs and that sort of thing?

MR. A'HARA: To be honest with you, I don't understand the question because I don't believe I said that.

MR. HALL: Well, you didn't say it but it's in your report.

MR. A'HARA: No. What is in the report is that we would encourage the airlines --

MR. HALL: Because one of the ones that you said that wouldn't use, you threw it out. You said that they wouldn't come to San Antonio if we did that.

MR. A'HARA: At the outset of this study, there was a very clear statement made by then-Mayor Henry Cisneros with respect to the future growth, particularly in the tourism industry -- particularly in the tourism industry and with regard to a target and the foresight for continuing economic growth here in the City. He stated at that time that no action will be taken at the airport that would deter the airlines from continuing to serve San Antonio. So --

MR. HALL: So we really don't know if that would be a deterrent or not and we missed projection on growth in San Antonio because I've been in business 17 years and this is the worst it's ever

been.

MAYOR COCKRELL: May I add just one comment? There was a question as to whether anyone in the above 75 decibel zone was involved with the study. And I might share with you the fact that I live in the above-75 decibel zone and as mayor, I'm going to take a very, very active interest.

MS. GOULD: My name is Shari Gould, I live in the Northwood area. I believe noise abatement is certainly necessary but I would like to go a little bit further than noise abatement. I am concerned about the safety of the neighborhood, the schools, those areas where a possible plane disaster could occur in our neighborhood as has occurred in other neighborhoods which are around the airports. Has anything been given -- any thought been given to building a new airport at some other location and then restricting the development around the new airport using the study which you have come up with?

MR. A'HARA: If you look in your report, you'll see that the relocation of the airport was an alternative that was considered. There has been a number of studies done prior to this one and independent of this one that looked at the possibility of a new aircarrier-capable airport in

the San Antonio-Austin corridor. It has been determined through each of those study efforts that it's just economically unfeasible due to the development that has occurred at the airport as well as the economic development that's been contingent around this airport. So, any time that question has been asked in the past, the studies that have been done prior to this one have eliminated it as possible.

MS. GOULD: Can we put a price tag on our children's lives in the schools, put a price tag on the residences and the neighborhoods that are affected by these airplanes and say it is not economically feasible?

MR. TINSMAN: My name is Richard Tinsman and I live in the Northwood area. Basically, I was very upset and concerned with your report which rejected the proposition that we should not give more traffic to Runway 3-21, which is the runway that goes to the northeast and the southwest. Basically, the rationale was: It will affect more people. So, the rationale is: We need to beat the people in the Northwood District to death rather than make some more people mad. And I noticed that last Saturday all of the planes were taking off on

3-21 but when we have the noise officer here, I'll bet you there wasn't one single noise complaint and the real question is: Shouldn't all of the people around the airport have to share the pain rather than -- In other words, the people aren't getting the pain to share. In other words, I can see there are some people at the end of 3-21 that say, "Give it all to the people at 1230." And in other --

MR. LABATT: If we could please, we have to maintain order in here. Let's let people talk and get questions answered. This proceeding will go much faster and smoother if you allow -- we don't have comments from the audience please.

MR. TINSMAN: The question is: What rationale was used by your company and you to basically reject this idea of sharing the pain?

MR. A'HARA: Okay. It's a good question. It was an alternative. It was evaluated and an alternative that was evaluated at some length. I said during the earlier part of my presentation, and granted, it's a fairly imbalanced runway use system here at the airport. That runway-use pattern is dictated strictly by -- the regional air space is dictated by the air traffic controllers and how they have to control airplanes that flow in to and out of

this region and to a degree, it is severely restricted by the surrounding military bases and their protected air space. We met with all of the air traffic control people from this region with the FAA, we had military representatives on the advisory committee and the entire issue was exhausted at some length with those individuals and the conclusion by those people that run the air space in this area was that the air space just does not -- would not allow any great increase in use of Runway 3-21.

MR. TINSMAN: You are aware, of course, that for six months they used it as the sole runway.

MR. A'HARA: Yes, sir, I am aware.

MR. TINSMAN: Then how could the air space not accommodate it?

MR. A'HARA: I think I answered the question.

MR. TINSMAN: I think you attempted to, but basically, you rejected the share-the-pain arguments; isn't that correct?

MR. A'HARA: Strictly because we were told it could not be done.

MR. TINSMAN: By any one person?

MR. A'HARA: By the air traffic control people of the Federal Aviation Administration as

well as by the representatives responsible for Randolph and Kelly Air Force Bases.

MR. TINSMAN: In other words, Mr. Sabinski and the commanding generals told you they couldn't --

MR. A'HARA: Feel free to ask them the same questions. Yes, sir.

UNIDENTIFIED SPEAKER: I would like to make just one comment, if you please.

MR. LABATT: Please introduce yourself.

MS. JOHNSON: I'm Ann Johnson and I live in the area just off of San Pedro. We built our home here in 1959. The Northwood area is a relatively new area and they knew exactly what they were doing when they built them.

MR. PALCZEWSKI: I'm Colonel Palczewski, retired Air Force pilot. One thing you didn't answer to the two speakers from the Northwood area on the runway, the runway is into the prevailing wind. When a pilot lands his aircraft, safety is paramount. When you land an aircraft going to the northeast with a westerly wind, you have a tail wind. We had an accident at Dallas in a thunderstorm -- catastrophe. Now, the Runway 3-21 is shorter, it is not the primary landing runway.

It is not the primary instrument landing runway. That has to be taken into consideration. The lady that spoke about accidents, she is asking for an accident when you switch that traffic around. You can't do it. And as a former pilot with 5,000 hours, we are asking for an accident, Mayor.

MS. COOPER: My name is Virginia Cooper. I thought this was going to be the question session. Questions of you. But I cannot let this lovely lady speak an untruth. I have lived in Northwood for 35 years.

MS. JOHNSON: I will counter that with our house was the last one built.

MR. LABATT: We're not going to get into a dialogue between residences here. If you have questions of Mr. A'Hara, please direct them to him and he will do his best to answer those questions. Are there any other questions at this point in time? Lady over to my left.

MS. MILAM: Yes. My name is Tenille Milam and I was noticing on the noise-exposure map that the noise levels for the 3-21 runway were very -- the contour was much different than the main airport there and I was also noting in the study that you didn't have any noise monitoring stations on the

area west of McAllister Freeway. I was just wondering if you're satisfied that the noise levels represented by this map from that runway are accurate.

MR. A'HARA: Yes, ma'am, we are. And the question is with respect to the fact that the noise contour off of the ends of the main runway on 1230 is obviously larger than that noise contour generated off the ends of the secondary or Crosswind Runway 3-21. The primary reason for that, as has been stated, is the predominant use for take-offs and landings of Runway 12-30. Primarily in the neighborhood of 89 percent on Runway 12 right, 30 left as opposed to the neighborhood of seven to eight percent of the total take-offs and landings at the airport off of Runway 3-21. So, obviously, the difference in noise contour size is somewhat proportional. With respect to the noise monitors, we had a particular -- we had particular noise monitor perimeters to stay within, we had a certain number of microphones, we had a certain period of time with which to move those microphones to various locations. Obviously, we used the microphones where we felt they were most needed to confirm the noise contours and in those areas where the contour was

much smaller, we needed fewer microphones to confirm or validate the contours in those areas. But, yes, the results of the noise monitoring are being validated, the computer-simulted contours.

MR. ROBERTS: My name is Charles Roberts and I am a resident of the Oakpark-Northwood neighborhood. My question -- I guess I have two questions. The first is: Would your study have been more objective and valid if you had not been directed to ignore certain alternatives that you listed in your report? For example, the Runway 3-21 that Mr. Tinsman addressed and then the other gentleman whose name I've forgotten -- Yes, LeMoyne Hall -- who said -- who asked of you with regard to the the use of the airport by the users of the airport.

MR. A'HARA: Basically the question is: Would our study have been more objective if we weren't quote --

MR. ROBERTS: Invalid.

MR. A'HARA: Invalid. We weren't, quote, "directed to eliminate various alternatives." I can simply answer that question by saying we weren't directed to eliminate anything.

MR. ROBERTS: Use your own word.

MR. A'HARA: We use the input of those people that know with respect to the way the runways are used at San Antonio International. The people that know best how those runways are used and why they're used in the manner they are, the air traffic controllers that control the traffic and put the aircraft onto the runways. We met with them, we worked with them, it was give and take and we told them, "Could we get another 25 percent of activity onto this runway? Would that work in your system?" They gave us the benefit of their knowledge in that area and basically informed us that it would not be able to work in their system and very simply, to put an alternative or an option into the noise-compatibility program that could not realistically be implemented, obviously, isn't the purpose of the program.

With respect to the Mayor's comments at the outset of program with respect to not wanting to carry out any alternatives that could hinder air commerce or economic growth here in San Antonio, the noise-compatibility program is a program that is adopted and accepted by the City, and it is there and they have every opportunity with -- and every option with regard to what affects the City to the

good and to the bad to carry that out and if the City has established that as an economic development policy that they would not hinder air commerce or restrict airport growth and inter-economic development, that is, in turn, the City's position and, obviously, it is the City's study.

MR. ROBERTS: Mr. A'Hara, you didn't answer either of the questions.

MR. A'HARA: I think I did, sir.

MR. ROBERTS: The first question was: Wouldn't your study have been more objective and valid had you taken into consideration all those factors?

MR. A'HARA: And the answer to your question is "no."

MR. ROBERTS: It would not?

MR. A'HARA: No, sir.

MR. ROBERTS: The second was -- I would have a comment. We now have another mayor, okay?

MR. A'HARA: Yes.

MR. ROBERTS: And that mayor might have a different view than the prior mayor. But my question now is: What other factors did you not take into account? What other factors did you ignore?

MR. A'HARA: Well, obviously, there's 25 alternatives right from the relocation of the airport which was mentioned by a citizen here this evening on through a number of various runway alternatives. We looked at extending the parallel Runway 12-30 to provide two air-carrier runways and see if the distribution of the traffic over those two runways would have a benefit, as an example. We looked at extending Runway 3-21 to see if we could, in fact, use it a greater percentage of time and gain some benefit. There was a number of various options we looked at. Of the 25 alternatives, about six or seven of those alternatives were alternatives that required the running of the noise model and the generating of a contour. If, in fact, implementation of the alternative did not cumulatively reduce the area impacted, it was eliminated from consideration. So, they weren't all necessarily subjective inclusions on our part. There were a number of alternatives that were evaluated on a technical basis and eliminated simply due to lack of evidence.

MR. LABATT: It's 8:00 o'clock now. Are there any other people that have any questions? If we could try to get those -- limit those -- go

through those as quickly as we can and then we're going to go directly into the public hearing, please. Yes, ma'am.

MS. MILLS: My name is Barbara Mills. I live in the Eden subdivision that is just north of Thousand Oaks and just to the west of Bulverde Road. I notice by your contours on the map that you didn't have the 65 Ldn out that far. Do you know if they had monitors in that area? I didn't read your report yet.

MR. A'HARA: This is out northwest of the airport, if I'm not mistaken.

MS. MILLS: Due north of that 3-21. Due north of that.

MR. A'HARA: Basically, the noise contours take the shape and move in the direction of the -- basically an extended runway center line or aircraft departure paths. And, then, obviously, as aircraft make certain turns further out, depending on the amount of activity on that particular path or that particular tract, the contour may have a tendency, like it does in the southeast, to occur and follow that track for a certain period of time. Due to the -- primarily the amount of activity that goes off of Runway 3-21 is one reason that the contour did not

extend out that far; and, secondly, any impact it would have from landings of aircraft on Runway 12, from the northwest, the aircraft landing configuration generates much less noise than the take-off.

MS. MILLS: All right. The reason that I ask is -- Is that Runway 12 that's coming in from the north?

MR. A'HARA: That's correct.

MS. MILLS: All right. I live directly under that flight path. All right? Directly under it. I've lived there for six years and I was -- that's why I asked if there were monitoring devices in that area because I live on a hill and the many times that I and my neighbors have complained, we were told that the pilots set their altimeters to jive with the elevation of the airport. But when you're on a hill and when those airplanes are landing right over your house, they are considerably lower to the ground and considerably noisier. In fact, when you look out our back window, you can see their landing lights coming right in. So, even though, you know, it appears that they're coming right in your back door, they're a little bit higher than that. But it is definitely a problem and I was

wondering if that was taken into consideration. The elevation of those properties that are directly under the flight path and the landings, of course, are very hot and very heavy and very loud, especially in the summertime.

MR. A'HARA: Your point's well taken and it's understood and that we were aware of the various terrain elevation differences out to the west and northwest and the question is still out on whether the computer model that we utilized can effectively simulate the effects of any terrain elevations.

MS. MILLS: Where can we find out where they had those monitoring devices?

MR. A'HARA: We have a map here today that -- I might add, in preface of that, that we do have the Noise-Exposure Maps here on board that we can put up on the easels that you can look at any time this evening. I think there is a map -- Is there a map in the summary report showing the locations? I don't believe there is. Okay.

In the study itself, there is a map that identifies the locations of the monitors. But in answer to your question, no, we did not put a monitor in that direction out beyond 65 Ldn.

MS. MILLS: Okay. Thank you.

MS. GROVER: Judy Grover. I have kind of a speculative question for you and that is when you did your monitoring random studies, that was after the airport improvements had been made and they were no longer using the temporary six-month flight pattern over the shorter runway, had you done your study while those six months were occurring? Would it be fair to say that this model would have turned and that that larger noise area would be running this way, instead, on the map (indicating)?

MR. A'HARA: Okay. The answer -- The question is basically centering around the period of time, approximately the six month period of time in which the main runway was undergoing maintenance on Runway 3-21, the Crosswind Runway was in predominant use. This was obviously a temporary situation. What we did from the standpoint of modeling, we took the average runway utilization over an annual period. So, in simple answer to your question, that six month interim use of the Crosswind Runway was not taken into account. We're trying to simulate the average day at the airport.

MS. GROVER: I realize that, but --

MR. A'HARA: If we had, in fact, put that

into the model, to a degree, yes, you would have seen almost a reversal in contour change.

MS. GROVER: If that were to become the primary runway, then we'd be looking at the noise pattern --

MR. A'HARA: You could almost look at it flipping it on the page, sure.

MS. GROVER: Thank you.

MS. MURGO: My name is Janet Murgo. I'd like to know why you can't close the airport at night. I've lived in another city -- Like in Gatwick, London they don't allow the plans to come in until, like, 6:30 in the morning and the same with other big airports.

MR. A'HARA: That's a good question. The question is: Could there be -- or why couldn't we enact some type of restriction that would eliminate or prohibit aircraft operations at night or during certain hours of the night. And you're absolutely correct in that there are airports in this country and around the world that have taken those type of steps to eliminate aircraft activity at night. What you're dealing with is the San Antonio International Airport is essentially a public airport, is a public-use airport.

It is attained to a great degree, it is developed and various expansion projects are undertaken through the use of federal funds. In turn, that airport must be made available to air commerce, per se. Okay? Any steps that are taken on a local basis to restrict the flow of air commerce is subject to litigation and rejection from the FAA, from the airlines. Okay? By rights, it is something that a number of towns have taken out, but there are very, very few towns that have taken steps like that that haven't been in court since the day they did it. It's something that's still being tested in the courts around the nation and around the world and it is a step that the City of San Antonio has chosen not to take to restrict or prohibit any type of operation into the airport.

MR. MITTS: My name is Sam Mitts and I'd first like to say I appreciate you-all taking the time to finally address this issue. I have two real brief questions. Number one, in your report, do you have the results of your monitors?

MR. A'HARA: Yes, sir.

MR. MITTS: Okay. Second thing, are there any cities that we could write to or the FAA could give us information on regarding how the assurance

program worked or didn't work and how the acoustical noise-abatement program worked?

MR. A'HARA: Overall, the department -- I might add and in answer to the question, are the noise monitoring results available? And, yes, there is a summary of them in the report as well as the actual results, noise readings and results are contained in the appendix of the Part 150 study. In answer to your second question, is there other airports or other cities that have enacted and implemented on some of the programs that are part of this recommended noise-compatibility program. The Part 150 Program is not -- It's a fairly young program, and Don can correct me if I'm wrong, but I believe it's only really come to be in the neighborhood of five years -- five or six years ago. There are a lot of Part 150 studies going now. A lot of the other cities are seeing them carry them out and do something to mitigate or minimize the noise with the help of federal monies. But there are not a lot of Part 150 studies that are far into the implementation process. So, yes, I'm sure Don Harris, with the FAA -- he oversees a number of other studies here in the southwest region that he covers, and, of course, there other airports

throughout the country that have carried out Part 150 studies and I'm sure he'd be happy to give you just a list of a few of them. But whether there are any that have really gauged the effectiveness of any particular program, I would say that that's probably a little bit down the road.

MR. LABATT: Last question in the middle, please.

MS. CULAU: I'm Brenda Culau and thank you so much for an enlightening evening. On this noise-compatibility program, especially elements 9 through 12, regarding how this would be paid for, just -- Forgive me for being mercenary -- but I'd like to know how we would raise the 20 percent that the City is responsible for and the disclosure ordinance. Since you have requiring the seller of the home to inform the buyer, does this mean that property taxes in these areas that are affected would go down because they're less likely to be bought?

MR. A'HARA: Question was with regard to financing. Obviously, the Department of Aviation has a capital improvement budget that they maintain annually and it's used for maintaining and developing the airport up to FAA standards and,

obviously, if they were to embark on various noise mitigation or noise abatement steps in addition to and alongside the other airport maintenance and development projects that go on, obviously their budgets would be utilized accordingly. With respect to the property question, again, I would have to say that it's something that hasn't been really tested to any great degree and just -- it's been a longstanding question, a longstanding argument and I'll be honest with you in that I don't know a true answer to that on just how the proximity of homes to the airport or, in turn, the mandating informing a buyer of the position of a home with respect to an airport just what it will do to property values. In my opinion, it's different from community to community and I quite honestly don't think there's a real direct answer to that question.

MS. CULAU: I do have just one more question about zoning. Does that affect just businesses or business and residential? I don't understand the zoning laws very well in the community.

MR. LABATT: Zoning would affect all types of businesses and residences. All types of zoning could possibly --

MS. CULAU: But would this force current businesses to move and -- to close and to move?

MR. LABATT: No. They have grandfather right.

MS. CULAU: Okay. Thank you.

MR. A'HARA: And I might also add in response to the property value question or the -- I'm sorry, the funding of the noise-compatibility program. The airports have their own improvement budget made up of internally generated funds from revenues, the operations of the airport. They are not general revenue funds out of the -- out of state taxes.

MR. LABATT: I think that was the last question. I don't know if there are any other questions -- yes, sir.

UNIDENTIFIED SPEAKER: I have a question.

MR. LABATT: Yes, sir.

MR. REIMER: My name is D. Reimer and I live off that short runway you're talking about. This morning from -- I arise at 6:30. From 6:30 to a quarter of 7:00, 17 planes went over my house. I'm less than a mile from touchdown and you tell me there's no noise? You come to my house, I'll teach you a lesson.

MR. LABATT: If I can have your attention, please. I'd like to declare the public meeting closed and would like to thank very much Alan A'Hara for an excellent presentation and his attempt to answer the questions. Two very quick things before we go to the public hearing and I would like to read off that the purpose and the procedures for that. I would like to introduce Les Hobgood who is the new Noise Abatement Officer for the airport. Is Les in the room now? He's right there (indicating). Les has been on board a short time. Formerly, he was the base commander of Kelly Air Force Base and we'll be attempting to address the complaints or the issues that come before the airport as it relates to noise abatement.

The second thing I would like to do is to apologize to those of you that are standing. We had originally scheduled this meeting to be held in the Mission Room down in the Convention Center, the city-owned facility that would hold over 1,000 people, and at the request of one of the neighborhood associations, we -- wished to have it closer to home. This was the largest facility that's on neutral turf that we could find. So, to those of you that are standing, I apologize. This

was done at the request of one of the neighborhood associations and with that comment, we would like to proceed and to open the public hearing.

This public hearing is being held to allow public comment and input on the FAR Part 150 noise-compatibility study for San Antonio International Airport. This is the opportunity for all interested citizens and organizations to have their say about the data in the study. The noise monitoring, the noise-exposure maps and the noise-compatibility program. Written comments will also be accepted for the record. And they may be submitted to the head table or mailed to the Department of Aviation at the airport -- City of San Antonio International Airport postmarked by November the 10th. The public comments made during the hearing are being recorded by a stenographer and will be part of the official report submitted to the City Council and the FAA as they consider the proposed noise-compatibility program.

As I call each person or organization to speak, please step forward to one of the microphones and state your name for the record. Again, individuals will be allowed five minutes to speak, organizations will be given 15 minutes to speak.

Now, as I mentioned earlier, if you wish to speak, then you need to have signed up before the opening of this public hearing. No more names will be accepted to that list, that list is closed at this point for those that wish to speak. I will call out the first two names on the list so the second speaker can be ready to step forward. And if somebody could bring me that list, please. Thank you, Les.

PUBLIC HEARING

MR. LABATT: I've got two announcements very quickly. If the Frayers would call their daughter? Call their daughter please. And there's trouble with one of the vehicles out in the parking lot. A license number 179-YYB. Somebody better go check their vehicle whatever that problem is. If they'd checked with the doorman please. 179-YYB. Okay.

First on the list if Phil Fryberger and Phil, it's my understanding you're speaking as an organization, right? Or as an individual?

MR. FRYBERGER: I'm Phil Fryberger representing an organization.

MR. LABATT: Then you would have 15 minutes. Second is Jesse Oppenheimer and I will continue to call out names as we proceed through the speakers.

MR. FRYBERGER: May I have a few minutes of grace to get set up, please?

MR. LABATT: While he's setting up, I'd like to comment that there's 59 people that would like to speak. And if you apply some mathematics to that, at five minutes per individual, that is five

hours worth of comment. So what I would encourage those of you that wish to speak, we're surely not trying to preclude that and I'm willing to stay and, so will the Mayor and councilmen, but if you have something that's repetitious, in the sake of time, if it's already been said, maybe it's best that you could defer to what's previously been said. But we potentially have a five hour -- five hours left from this point in time.

Okay. Can we have your attention, please.

MR. FRYBERGER: Madam Mayor, Councilmen Labatt and Hasslocher, ladies and gentlemen, I'm Phil Fryberger chairman of the Oak Park/Northwood Neighborhood Association. I'm speaking for that association this evening. Tonight we face a dilemma. On the one hand, we welcome some of the recommendations made by TransPlan to help alleviate the noise problem here in San Antonio. It is so acute and so bad that every little bit that was done to help resolve it is a step forward. Therefore, we do not want to be supercritical of the study that has been going on so far to the extent that we stop any forward motion through the approval and acceptance process. On the other hand, we believe that by having arbitrarily eliminated some viable

important and very promising alternatives merely because they are asserted to have been city policy without any analyses to back that substantiation up is a head-in-the-sand attitude. We hope to change that by increased sensitivity to the problem tonight. In addition, our dilemma is compounded by our disbelief in the basic premise of the study. That premise is that despite increased daily operations and talking about 80 additional operations per day in peak months, the additional noise exposure will be offset by increased use of Stage 3 or the quiet aircraft. We believe this to be untrue for two reasons. That noise contour they talked about is driven by the noisy airplane, not the quiet airplanes. The Stage 2 noisy aircrafts dominate that noise contour, not the quiet Stage 3. Secondly, and probably more importantly, we believe the basic premise is tainted by conflicting and confusing assumptions that increased percentages of Stage 3 will be used. These assumptions fail when confronted with historical data which we will examine in a minute.

We believe that TransPlan has done a satisfactory and credible job in identifying the noise problem here in San Antonio and they have

fairly well accurately portrayed it in the 1987 noise-exposure map. It was generated, as I said, by an approved FAA computer model and it was validated earlier this year. We don't want the half-a-million dollars in five years that has already gone into this effort to get us here tonight to be wasted. We don't want the draft program to get off track by halting or impeding the acceptance and approval cycle. However, although we are have no quarrel, essentially, with the 1987 map, we must express our concern and reservations about the 1993 forecast, the so-called 1993 baseline map. And for the rest of my allotted 15 minutes I hope to let my chart speak for me.

Let me orient you on the chart. It displays the annual percentage of Stage 3 aircraft both at the national level and at the local level. On the vertical axis, we have Stage 3 aircraft in increasing increments from ten percent to 60 percent. On the horizontal axis, we have the year beginning 1980, runs out to your right to 1993, the period covered by the study. The vertical line here -- this vertical line is where we are today, the fourth quarter of 1989. The solid lines are historical factual data. The forecast lines are in

dotted lines both here and in the red zone also (indicating). Let us -- If we look to the left of this vertical line we're talking about history; if we look to the right, we're looking into the future.

What does this map tell us? It tells us, first of all, that in 1980, 15 percent of the national commercial airline fleet was Stage 3 aircraft, the other 85 percent was Stage 1 and 2, the noisy. As we go up this national trend to January of this year, the average, nationwide, was 40 percent. This trend extends on out at roughly three percent per year to the year 2010 when the FAA estimates that the entire commercial fleet will be 100 percent Stage 3 or quiet aircraft. I think that's about all I want to say about the national trend. It's three percent per year. This data, incidentally, was submitted by the FAA to Congress in August of this year. This is the FAA data, not my data.

Let's look at the San Antonio or the local level. We don't know how San Antonio got to 22 percent of Stage 3 in 1987. I got it from a TransPlan report. It's still 22 percent today. I got that from the airport last week. So what we have here today is a gap. San Antonio's at 22

percent, the rest of the nation -- the national trend has 43 percent of the Stage 3 aircraft. Again, we don't know how San Antonio got to 22 percent but the real question is what happened after they got to 22 percent. We stayed flat where the rest of the nation is progressing upward at three percent per year. Now then, we think that that gap, which is today, we're one half, approximately one half the national average. We think that is more than somewhat behind. The report says that San Antonio is somewhat behind. The historical data says we are way behind and need to catch up.

Now then, let's look into the future. The future gets murky because in the study, on page 77, it says the 1993 forecast is based on San Antonio going from 22 percent Stage 3, the quiet airplanes, 43 percent. On page 86, it says, "assuming the national trend," which is three percent, to get to to 43 percent. But if you assume the national trend, you don't get 43 percent, you get the 42 percent right here, not there (indicating). On page 107 of the report it says, "The 1993 forecast is based on no change from the aircraft mixed." That means we stay at 22 percent clear on out to 1993.

My problem is I don't know which

assumption to believe. The only thing I can conclude is that the assumptions are contradictory, confusing, perhaps erroneous and that any of the analyses that stemmed or flowed from those assumptions is flawed. With that preamble, I've made some other conclusions.

First, even a cursory review of what other cities are doing to help themselves solve airport noise problems convinces us that even though TransPlan has proposed some positive recommendations, and we applaud them for that, we even suggested some of them, the overall thrust and effect of the study is to deny effective measures. The study nibbles at the problem but never comes to grips with it.

Secondly, the basic premise that increased operational activity of up to 80 more operations per day will be offset by increased percentage of Stage 3 aircraft is tainted, as I said, by conflicting assumptions. Because of this, the analyses and conclusions are questionable.

Third, because the forecast is doubtful, the City and the FAA should reconsider those viable alternatives which have been arbitrarily rejected at this point. Contrary to the basic premise that

Stage 3 aircraft will reduce the contour over time, historical data indicates that that won't happen unless we make it happen. Experience, nationwide, shows that airport noise just does not go away on its own. We have to negotiate, make some difficult hard decisions, compromise, but above all, take action to solve a serious problem and I'm suggesting that this is not a neighborhood problem. I see various factions here tonight, I've heard them. But we think it's more than a neighborhood problem. It's a city problem. We think a gap --

Now then, since we are way behind and have to catch up, we hope that the City will listen to us this evening. Past inattention to the City's airport noise problem has resulted in this serious gap between the influx of quieter airplanes throughout the nation and those that are coming here. And there are very good reasons why some of them aren't coming here. Other cities are giving the airlines incentives to bring their Stage 3 aircraft to their airports. The Stage 2 junk comes into San Antonio.

Fifth and last, we ask that to help close this gap and provide some relief before 1993 that the City and the FAA accept, adopt and approve

Appendix E of the study. That appendix contains the Oak Park-Northwood Neighborhood Association's recommendation which are:

One, provide strong monetary and regulatory incentives for airlines to use more Stage 3. It's not going to happen by wishing it so. We're asked to believe that for the past -- even though the past three years we've been doing nothing that overnight we're going to jump to double the national trend. I don't believe it and you shouldn't believe it. That might happen if the airlines had incentives but the study has no incentives to recommend. What the study says is that the airlines should participate voluntarily to bring their Stage 3 aircraft in here and if they do, they'll be rewarded with a letter of recognition. That's very low carrot and no stick to get to that line. So, we hope that that incentive will be provided.

Second recommendation is use of a rotational runway system which is used in at least 11 other airports in the country and other measures to distribute noise for equitably and provide more directional balance. TransPlan says it's balanced. It is unbalanced. We should balance the reduction

of noise with the prevention of noise. Those are the twin goals of any noise abatement policy.

Third, vary the flight patterns and take other procedural measures to disburse noise more quietly.

And last, more effective use of the new Noise Abatement Officer by delegating authority to him commensurate with his responsibilities.

These recommendations are contained in the report. I've submitted copies of them to the Mayor, the City Council and the Aviation Advisory Board and the FAA. We think that because the TransPlan study is flawed, as I outlined, because of some conflicting assumptions, that we need to go back and review those alternatives and adopt them and put them into practice. We also urge that despite this criticism of the TransPlan forecast that we do not halt the overhaul process of getting something approved and a program. We're tired of hearing about plans and studies. We need a program and we hope that happens.

MR. LABATT: If you could wrap up, please. Your 15 minutes are up.

MR. FRYBERGER: Okay. We hope that our concerns are addressed and that the City becomes

more sensitive to this issue and that the process will continue to focus on problem resolution, not more public relations. Thank you.

MR. LABATT: On the sign-up sheets, before we get to Mr. Oppenheimer, there were four other people that were signed up as part of the Oak Park-Northwood presentation, so I would assume that their presentation was handled by Mr. Fryberger and that --

AUDIENCE: No! No!

UNIDENTIFIED SPEAKER: You can ask where we came from, not, you know....

MR. LABATT: It says "organization."

UNIDENTIFIED SPEAKER: All of us are part of an organization but that was -- the 15 minutes was devoted to give....

MR. LABATT: I'm asking a question, sir.

UNIDENTIFIED SPEAKER: I'm sorry, excuse me.

MR. LABATT: You just signed up that way. I can't help it -- whoever did. We'll treat those four individuals as -- people as individuals. If they wish to speak....

AUDIENCE: Yes!

MR. LABATT: Mr. Oppenheimer.

MR. OPPENHEIMER: Ladies and gentlemen, my name is Jesse Oppenheimer and I purposely did not put down what organization I belonged to because I would be in hopes of when we leave here tonight we will have been mediating and settling where we have all winners instead of winners and losers. I don't think we're trying to arbitrate anything here. I don't think we're trying to put on the Government arbitrary decisions. We're here simply to discuss noise abatement at San Antonio International Airport because it is of great discomfort to thousands of our citizens and reducing their real estate values as well. The City of San Antonio and the Federal Government have set up subcommittees, made studies and discussed plans since 1983 -- six years at the cost of the taxpayers of thousands of dollars.

Let's cut out the boot dogging, the buck passing, the bureaucratic inefficiency and take the following four simple steps now. One, quieter motors pay less fee for airport use. Their old noisy motors will be curfewed from 11:00 p.m. to 6:30 a.m. Increase the use of the secondary runway where we've already spent nine-and-a-half million dollars to reconstruct that runway, increase it from 8 percent to 25 percent. Three, allow

modifications and variations in the flight pattern within the bounds of prescribed safety regulations. Four, the City of San Antonio to provide a hotline to educate the public and keep the lines of communications open. I would also like to suggest to the rest of you that talking over your time isn't accomplishing anything either. Thank you very much.

MR. LABATT: Shelley Flume and after that is Mary Diggs.

MS. FLUME: My name is Shelley Flume and I live in the Northwood area. I'd like to address the legal responsibility of the duties of the airport owners to the residences who experience the noise injury like the children at the Northwood Elementary School that are located in the 75 Ldn area. A recent report was submitted by Illinois Congressman Heim and that was regarding the world's busiest airport which is the Chicago O'Hare International and this report discusses, in part, the liability and the responsibility of the noise injury. The article tells us that airport proprietors may be held responsible, may be held liable for noise injury and not just look to the FAA. That is, the airport owners need not wait for the airlines to come out with quieter aircraft, airport owners do

not need to try and pass the responsibility on to the FAA because it's the airport proprietors responsibility or duty to do something about the noise injury that we're all experiencing. In the United States Supreme Court case of grids, the airport proprietors were held liable and responsible for damages caused by aircraft noise because they're the ones that selected the site and, therefore, they have the responsibility to acquire enough land to prevent the damage.

In another case where a homeowner association -- some of us aren't from here -- versus the City of Los Angeles, the Court addressed the issue. The issue they addressed was, is the City which owns and operates the airport liable on a nuisance theory for personal injury sustained by nearby residences and caused by noise from the aircraft that were using the facility. And the answer was "yes." That's what the Court concluded and former FAA General Council has supported that conclusion. In fact, an article that he's written this past year cited much case law that said that airport owners have the responsibilities and duties and not only that, but in fact, they can establish aircraft guidelines and noise levels as long as

those restrictions are justified to the need -- to respond to the need of the noise problem of the airport and the residences's surrounding area.

In summary, there is established law that discusses the airport proprietors responsibility for the airport noise injury that we're all experiencing. And from the information that I've reviewed, we can ask all -- all of us can ask the airport proprietors, the City, of the people that can be held liable to meet their responsibility to alleviate the noise injury now and, again, not wait for quieter airport aircraft noise, but some of the recommendations that Mr. Fryberger suggested and just establish these reasonable controls legally and meet their duty to protect the residences from this horrible injury. Thank you.

MR. LABATT: Mary Diggs.

MS. DIGGS: My name is Mary Diggs. I live southeast of the airport. A good friend who lives in the Shearer Hills neighborhood recently said to me, "I don't understand why 90 percent of the flights go over your house." She said, "For six months in 1986, all the flights went over my house. Why can't we share in the traffic so that we can spread the noise more evenly?"

My friend may not know about airplanes but she does know injustice when she sees it. We have not asked our friends in Shearer Hills to take all the noise as they have reportedly asked of us. We only ask that they take their fair share. Please increase the use of Runway 3-21 at least 25 percent. It's practical, it's good use of public money and it's the fair thing to do. Thank you.

MR. LABATT: Next will be Shirley Cooper and then Ken Ports.

MS. COOPER: I wish to address the noise abatement and how it affects our health.

MR. LABATT: If you would introduce yourself, please.

MS. COOPER: Shirley Cooper. I live in the Northwood area. Aircraft noise disturbs the normal activities of airport neighbors, their conversations, sleep and relaxation and degrades the quality of life. Depending on the use of land contiguous to an airport, noise may also affect education, health services and other public activities. Interference in human activity includes sleep interference, speech interference, interference with study, concentration or critical tasks and outdoor activities.

Interference with sleep activity is critical in health care facilities but is also extremely important in individual homes. It affects all age levels from babies and children to shut-ins, elderly and handicapped plus terminally ill people who cannot escape the noise impact in our neighborhood. Although there may be indirect and subtle social and pyschological harms, aircraft noise is predominantly a nuisance which promotes the loss of quiet enjoyment of our homes and backyards. Under these circumstances, where activity generating the noise is considered essential and the impact's minimized through careful management of the overhaul problem, a relatively high degree of tolerance can often exist.

The City of San Antonio has an obligation to protect the health, wealth and welfare of its citizens who are suffering from the results of a city-sponsored activity; that is, the operation of a municipal airport. We do not seek a change of location for our airport or expect total elimination of airport noise. We wish only to have noise abatement plans placed in effect that other major cities throughout this country are already enjoying. Thank you.

MR. LABATT: Ken Ports, please. And next will be John Gibbs.

MR. PORTS: My name is Ken Ports and I reside in the 75 Ldn area. One technical comment and a comment on the general contents of the recommendations. The technical comment has to do with the Ldn for 1987 and 1993 and rather than go into and reiterate what Phil Fryberger says, the data is on your training aid up there. It is quite evident that the contours remain the same after five years. And we find it difficult to believe because it affects the contours. In all probability, it will increase in size rather than decrease in size and it has to do with the live incentive for bringing on Stage 3 aircraft and a lack of incentive to require pilots to use a standard thrust cutback procedure. What the Ldn 1993 tells us is kind of like going to the doctor and getting your examination and he comes up and says, 'Well, old buddy, your cancer was casticized but it ain't going to get any worse.' So, we have problems with that.

Now, the comment on the recommendations. We feel there's no teeth in the recommendations. We feel that the noise abatement officer's fine, but we say he's going to implement noise abatement

procedures. He's not going to have a whole bunch to do because there's nothing for him to implement because there's no mandatory requirement to bring on Stage 3 aircraft and standard thrust cutback procedures. These must be mandated and must be made mandatory. I just fail to see why we cannot do that. Then we're going to get some quieter contentment in our home and perhaps the Mayor, who lives one block north of me, will follow along in our procedures here. So that's basically all we have to say. We need some teeth in this. The recommendations are fine but they have to be mandatory. Thank you.

MR. LABATT: John Gibbs and then LeMoyne Hall.

MR. GIBBS: Mr. Labatt, off to your right, please. To your left. Excuse me. I'm John Gibbs and I guess it's obvious I'm from Northwood. The comment that I'm going to make it's -- I appreciate the recommendations that were made specifically on the establishment of the Noise Abatement Officer. I think that's crucial to everything that we're doing here, but I've come into contact -- not in contact -- but I've gotten a hold of a copy of the job description for the San Antonio Noise Abatement

Officer for the airport. And it goes just about what the gentleman just concluded saying there's no guts in it, there's no teeth and there's no mandatory bite to put this into implementation. And the first part goes, "This is an administrative and technical work implemented, coordinating and monitoring the San Antonio International Airport's noise-abatement program." The next paragraph will blow your mind. "The employee will be primarily responsible for public relations activities." Ladies and gentlemen, I submit that the things should be taken back and you've got to put into this documents words like, you know, "execute," "has the authority to," "command" and "control." Get rid of the other garbage. This man's primary job is to reduce noise. The job of the committee for the planning and all that, that's fine; they can do that. But we need the person to go out and say, 'That airline is illegal. They're doing it illegally. Stop it.' Thank you very much.

MR. LABATT: LeMoyne Hall and, then, next will be Janie Froehner.

MR. HALL: LeMoyne Hall. I'd like to say one thing. This is San Antonio Airport and to pit one neighborhood against another I think is very

devisive and to say that one neighborhood caused this or one neighborhood caused that, we have representatives from all neighborhoods here and we're all part of San Antonio and we need to work together. When they tried to close the schools in the Shearer Hills area, I worked to keep your schools open and I don't live there, folks, but I've worked hard to keep your schools open because it was the right thing to do and I'm here tonight to talk about the right thing to do.

Twenty-three years ago a problem existed when I moved here, but it was a small problem. There were fewer numbers of aircraft and there weren't very many jet aircraft. That occasional annoyance has now grown to a constant, incessant drum over the top of my home. I can read Good Year on the tires when they fly over my house. I'm in the 75 decibel zone. I'm not an expert on decibels but I am expert in the noise that goes over my house and you don't measure those with computer modules, you measure them with your eardrums when you can't talk on the telephone because you can't hear the person on the other end of line whether it's long distance, or local. If it's long distance it costs money. When you can't hear the TV news because

there are four or five airplanes flying over, when you can't have people over in your backyard or have a gathering in your home because the noise is so loud, I don't care about decibels. I say I can't live in my home like I used to 23 years ago. It's a different animal today than it was then.

The leaders say that they're concerned. I wonder. The actions don't show it. I believe Mr. Labatt is concerned about noise. When noise took place in his neighborhood, he took action immediately. He doesn't like rock music. I don't like rock music either. I would ask Mr. Labatt if he would like to wait until people get tired of listening to rock music until his noise goes away. I don't want to wait for 1993 or any other year for Stage 3 aircraft to come in without any enforceable rules.

The other thing that took place is you fought the study to begin with, it took five years and two firms to complete. No one talked to me about it and I live with the problem. At the very least, you could immediately stopped unnecessary flights. In my back yard on October 3rd in the afternoon, I was working and within a span of 12 minutes, three Air Force trainer jets flew over my

house. They were practicing touch and go with the airport. They don't have to do that, folks. That's three planes that didn't have to be there. What's our Noise Abatement Officer doing? You say you're concerned. Where's the rest of the Council? This is a City of San Antonio problem. I appreciate the three of you who are here, but this is San Antonio. While we study, other cities are taking action.

Recently in Washington D.C. at the mall, I saw aircraft and, yet, I could talk to my wife who was next to me. In Nashville, Tennessee, I watched the TV. Guess what? They're spending $51 million to buy up housing around the airport because they have a noise problem, too. Other cities are taking action. They're not talking about it, they're not studying it, they're doing something about it. The squeaky wheel gets greased, folks, and if we don't squeak, everyone else is going to get those Stage 3 aircraft and we're going to be left with the noise we have today. It's interesting that you said that noise wasn't getting any worse. I don't see how it can. Thank you.

MR. LABATT: Janie Froehner and then after that is Charles Nourie.

MS. FROEHNER: For the sake of time, I'm

going to read my report rather than just giving it. I'm Janie Froehner. My family and I live in the Northwood neighborhood. We suffer from the airport noise on a daily basis and feel very strongly that some relief should be provided. I would like to talk about prevailing wind because my experience has been that we are denied some relief in our neighborhood because it is necessary for the airplanes to take off and land into the prevailing wind. Every time we register a complaint about excessive or loud noise, the prevailing winds are given as the reason for using the primary runway. For almost two years now I have monitored -- Mr. Hobgood, I have monitored the wind direction and velocity and noted how they correlate with the flight path of the airplanes which are taking off and landing. I will be very happy to show anyone who is interested any notes of these daily occurrences. From the information I have collected, it is quite apparent to me that it makes no difference at all what the prevailing wind is because the primary runway is used 90 percent of the time almost. This confirms what you learned back in 1986 when the secondary runway was used 100 percent of the time for six weeks -- or months I should say.

Excuse me. This experience convinces us that, clearly, the wind was not a factor as to which runway was used because during that time period, 100 percent of the landings and take-offs were made on the Crosswind Runway. I am sure there are other factors that may determine runway use, but prevailing wind, in my opinion and our opinion, apparently is not the most important factor.

In summary, I want to say that it seems unfair for any one neighborhood to suffer all the noise. A sense of fairness and decency would seem to dictate that we try to balance the load. A balanced load makes it easier for everyone. I agree with Mayor Cockrell when she recently said to a neighborhood group, "When you address a problem, you solve a problem. And when you solve that problem, you're bringing a new whole quality to life in the City." All of us here tonight have a great love for our wonderful city and we want the best for all of its citizens. So let's use our hearts and our minds and work together to gain peace and quiet for all. Thank you very much.

MR. LABATT: Charles Nourie and then Michael Bigley.

MR. NOURIE: I'm here strictly as a

citizen and I would rather -- I don't believe that anyone has spoken for the Shearer Hills Association and I'd rather speak after they speak. Thank you.

MR. LABATT: Okay.

MR. BIGLEY: Hello. My name is Mike Bigley. I live on the northwest side of the runway and I got involved in this after me and my wife moved in our house and we couldn't entertain in our backyard and that was sort of a dream for us to do that. We bought a nice house and we couldn't do that, so I got involved with it and Phil -- with Phil and he asked me to come and voice my opinion. But as you know -- most of you know, Phil has been working on this project for a long time. He has laid out simple and attainable procedures for airlines to follow. Two of them I briefly discussed with him last night. One being that the airplanes, when they take off over the Oakwood neighborhood, that they -- that they go over 410. They veer off and go over 410 and go over commercial buildings instead of going over you-all's neighborhood. Another thing we discussed was that when the planes are landing, that they are restricted to higher attitudes (sic) and that they are required to use their engines where -- they use their engines and

there's no thrust to the engines. When they're coming in, they sort of coast in. The sad part of this is that these simple procedures have not been proposed or that we're proposing has not been implemented and you wonder why. Well, I think the reason why is -- was this week's issue in Time magazine. And the title being "Is Government Dead? Unwilling to lead." Politicians are letting America slip into paralysis. Paralyzed by special interest, the short-sightedness, the Government no longer seems to be responding. This is exactly what I think we have here.

As you know, the TransPlan noise-compatibility study had some recommendations that had no teeth or enforcement in them. Their favorite words were "let's encourage" and "let's remind pilots to practice noise abatement." By making such ineffective recommendations and not mandating these restrictions, they are practicing their own self interest. Who do they not want to upset? The pilots? The FAA? The city? Are they afraid if they recommend mandated alternatives that they will use the future contract? Time magazine -- and I read this article -- Time magazine thinks that this type of special interest politics is running

rampant in today's society. I believe that we need to band together as citizens and demand noise abatement and we will achieve our goal. A quiet airplane over any neighborhood is acceptable and what we need is we need our leaders to respond to the people sitting in this room and not to the self interest, as Time says, that most of them are doing in Washington. Thank you.

MR. GONZALEZ: Madam Mayor, Council, my name is Jerry Gonzalez, I live at 221 Linda Drive and I am here as a citizen and a tax payer. I am here to speak in support of the noise-compatibility program being proposed by the Aviation Department with the approval of the City Council. We are not here to tell you your duty. As elected representatives, you know what your duty is. To have to choose between the safety of the community at large and the comfort and convenience of one segment of the community should not be difficult. The studies that preceded the recommendations that we're discussing this evening are rather technical. Those reports contain much useful information for the regulators and technicians who must interpret those reports.

Let's cut through the jargon however and

get down to some basic principles. The first principle is that the majority of the citizens that are being inconvenienced by airport noise have moved into their offices, their homes, their churches and their businesses in the last 20 years. The prevailing winds in San Antonio have not changed during that period. The ambient temperature that affects take-off flights has not changed during that period. The majority of aircraft used today are more quiet than those in general used 20 years ago. What has changed in 1989 to make residents who once tolerated airport noise less tolerant today? What has changed in 1989 to make residences who at one time saw no danger in encroaching on the airport's primary runway with residences, churches and schools to make them suddenly concerned with safety? Only the attitude with a local group of citizens has changed. The principles have fought flight safety and the principles of aircraft -- I'm sorry -- of airport safety that existed 20 years ago still exists today. Attitudes have changed. It's your duty to the San Antonio community at large that has not changed. The recommendations made by the staff proposed to mitigate or to abate the maximum -- to the maximum extent reasonable, the noise impact of

aircraft operating out of our airport. As members of the flying public, we can ask no more or no less. As taxpayers, we can ask for no more and no less. And as reasonable people, we can ask for no more or no less. If a political decision is made to shift the noise, then you will shift the risk. If you shift the risk, you increase the risk. As elected representatives, you know what your duty is. Thank you.

MR. LABATT: Next is John Gall and then G.A. Martinez.

MR. GALL: My name's John W. Gall. I live at 407 Springwood in Lurts (sic). When I bought my property, I could look out and see Loop 13. There was nothing but range. The airport was there, it didn't just move in. They bought the property all around the airport, they knew it when they bought it that there was going to be noise and I've had that airplane fly over my house -- prove to you what I have in my ear -- I wear two of them! That's how bad it's got! So, I can't see the City spending taxpayers's money to buy the properties of other people who live around the airport. And in that basis, if it comes to that, then you'd better all sign Stubb's petition. I thank you.

MR. LABATT: G.A. Martinez.

MR. MARTINEZ: My name is Guadalupe Martinez. I live at 519 Jackson Keller. It is imperative that the recommendations of the study on this airport be upheld and carried out. This study is the result of an extensive, protracted analysis of the airport problems facing this city. The recommendations are made based on the best information available, thoroughly analyzed, looked at from every conceivable angle. To disregard the recommendations and rule to the contrary is foolish and exceedingly harmful to the City. In fact, to rule against the study is tantamount to suicide. The welfare of the population of the City as a whole will be sacrificed if the runways are rotated just to balance the load. Thank you.

MR. LABATT: Mr. Sabe Comley and then Richard Hatch.

MR. COMLEY: Mayor Cockrell and City Council and ladies and gentlemen, I appreciate the opportunity to come home to San Antonio to share with you some of our thoughts about the San Antonio noise-compatibility study. I'm Sabe Comley. I'm the Director of the Southwest Regional Office of the Air Transport Association of America. I'm here on

behalf of the Air Transport Association airline members to speak and support, with some exception, the San Antonio noise-compatibility study. The Air Transport Association is a trade and service organization representing almost all of the major airlines and their cargo operators in the United States. The Air Transport Association members fall over one million airline passengers a day, over 400 million passengers a year. On the other hand, it's our aircraft that all those passengers that make the noise that cause this study. The airlines realized many years ago their responsibility to their passengers for safety and their airport neighbors to reduce the impact on those neighbors to the least amount of noise as possible. And in their endeavor to minimize noise, they started in the early 1960s to develop departure and arrival procedures that would provide safe departures and arrivals and yet minimize noise impacts.

Today, all airlines utilize the arrival and departure profiles that are approved by and mandated by the FAA and been demonstrated to be effective in reducing the noise impact while providing a safe operation. These procedures are now so standard and so much SOP that many of the

crew members do not realize that the procedure used were initially developed for noise abatement. The FAA-approved noise abatement procedures as contained in FAR 91 -- Part 91 were in use by each and every flight that operates at your airport that is operated by the major airlines. In addition, our members complied in a timely fashion to the elimination of the Stage 1 aircraft. Those are no longer used.

They are constantly improving their fleets with increasing numbers of Stage 3 aircraft as fast as manufacturers can produce them and certify them. It's been said here tonight that the fleet had 15 percent Stage 3 in 1980 and now have 40 percent with a projection of 63 percent for 1995. The purchase of these new aircraft and modifying existing ones at the Stage 3 standards is extremely costly.

Anytime that a noise study of this nature and this magnitude is conducted, many people are encouraged that the noise that bothers them is going to be eliminated. But the real objective of this study is to reduce the overall noise effect to the community, not to individuals. In this study, it was determined that the current runway use did just that. To mandatorily change the runway use as it is

known today, we're going to create a situation which will adversely impact on other members of the community. At the same time, you have air space constraints by the proximity of Randolph and Kelly Air Force Bases that prohibit changing the San Antonio International traffic patterns to any degree. Therefore, it would not be feasible to mandate any major changes to your San Antonio International traffic patterns.

Based on all the aspects that have been considered in the plan, we at ATA representing the airlines feel that proposed noise-compatibility plan for San Antonio International Airport is a reasonable plan and with the exception cited before, we support the plan.

We do take exception to the statements in the plan that say that the -- that elude to the fact that the airlines do not use noise abatement procedures. Otherwise, we support the plan and on behalf of our membership, we pledge our support to this plan in continued efforts to minimize aircraft-generated noise in the San Antonio area to the fullest extent possible and still provide you safe air transportation. Thank you very much.

MR. LABATT: Richard Hatch, please, and

then Ida Kenny.

MR. HATCH: I'm Richard Hatch. I'm the Chairman of the Airport Advisory Committee and I'd like to start out by saying a couple of comments with regards to this process. The process I have been involved in for the last year and a quarter with a lot of folks that are sitting out there right now, Phil Fryberger and a number of others, that have been working very diligently, not always on the same side of the fence, but working together to improve the situation in San Antonio, there's one thing that I think has to be made abundantly clear about the adoption of this particular plan.

One thing is that adopting this plan does not restrict or eliminate the possibility of enforcing any particular policies that the City of San Antonio chooses to enforce. It doesn't eliminate the possibilities of some point in time in the future developing something new that will eliminate noise. Doesn't eliminate the possibilities of producing some teeth to a noise-abatement plan. But what it does do, which is most important, is that it puts into place a method to adopt these policies. It puts into place the Noise Abatement Officer and the various other

committees that are being placed to be accountable for providing teeth and enforcing it, not tomorrow, but for the future, for the foreseeable future. Things are going to change. The airport is going to grow, the City of San Antonio is going to grow and every new year we're going to have new problems. And those problems are going to have to be addressed on a case-by-case basis. And by implementing this, it provides the vehicle to properly address the problems and set policy by the owners of the airport, the City of San Antonio. And they, folks, are accountable to you.

The Airport Advisory Committee has met and thoroughly gone through the recommendations of TransPlan. I personally have been involved with the TransPlan, as I said, over a year. I think that it's a very professionally presented situation. I was very impressed with the work that TransPlan did. The Airport Advisory Committee has gone through every single page of the document and I think it's something that if you have some interest into the detail as to how much work and effort's been put into this, you ought to go and look at it. You can't get, in a 30-minute presentation, the work of a year and a half.

With all that consideration, the Airport Advisory Committee has adopted a resolution I'd like to read now. "Whereas, it is a policy of the City of San Antonio to encourage new and improved air service to complement its economic development goals and objectives; and, whereas, it is further the policy of the City of San Antonio to develop San Antonio International Airport to serve the community; and, whereas, residential development has occurred in and around the vicinity of the airport; and, whereas, in the interest of prudent management, the City Council has approved a noise-compatibility study for the airport in accordance with the Federal Aviation Regulations Part 150; and, whereas, the purpose of the study is to identify to the extent of noise impacts adjacent to an international airport consider alternatives and make recommendations from mitigating such impacts; and, whereas, a noise-compatibility program has been developed with input from representatives of various neighborhood associations, aviation users, the military and civic organizations. Now, therefore, be it resolved by the Airport Advisory Committee of the City of San Antonio the Airport Advisory Committee approves the international airport noise-compatibility program

and recommends its adoption and approval by the City Council." Thank you.

MR. LABATT: Let me comment that a previous speaker that was signed up, Doris Anderson, left but she left written comment which will be turned in. Next is Ida Kenny and following her is Joseph Kenny.

MS. KENNY: Thank you, Councilman Labatt, Mayor Cockrell, our old friend and, of course, Jim Hasslocher whom everyone knows. I'm sorry Bob Thompson couldn't be with us tonight but he not only is a pilot but he sat through stages in the development of this plan. I was fortunate enough being president of the Shearer Hills Association to sit in on the discussion of this for a year and I can tell you with complete confidence and assurance that a lot of time and discussion went into the planning. Many options were put forth and they were studied and some were retained and some were discarded. I think that one of the things that they tried to do was to see everyone's concerns and their viewpoints and to address them. The FAA sat in on every meeting examining the safety factors of what we were saying and listening to ideas. The Shearer Hills Association strongly supports incentives to

use Stage 3 engines and incentives to encourage it. We think that noise monitoring provides an excellent incentive for noise abatement because they get the name of the plane and the time and the date and they're able to report it to the aircraft company that has it in the air.

We think that comprehensive land-use planning and zoning should have been done a long time ago, but it's never too late to start. And water under the bridge is no use for worrying about it now. Disclosure ordinances, again, one of the most important macias (sic) to exact and the point about it is that while the airport was shut down like six months, a lot of houses were sold and people bought into the property that did not know they were under the flight pattern and some of them are here tonight. The one suggested action of flight pattern changes we absolutely strongly oppose and would protest. As stated, it would offer no relief for the areas impacted but it would increase the areas affected and the population impacted. And it does consist of a creation of hazardous air space conditions. During those six months that they were flying over, a plane crashed by us. It came down through the efforts of a skillful pilot that brought

it in within 200 feet of heavily congested houses and two blocks away from a school. The thing that we see is that this heavy air traffic is directed over us. You are impacting schools, you are impacting nursing homes, you are impacting churches and you're impacting a tremendous area of population that at the present time is not impacted by the noise. We go back -- we do not believe at all in neighborhood against neighborhood. We belong to the neighborhood associations and we've worked, as Jesse Oppenheimer said and some of the others, on projects that the other neighborhoods are doing and will continue to do so.

But good neighbors, when everything piles up, don't throw it over on the adjoining neighbors and we feel that the idea of this traffic and noise should be pushed over on us because it is increasing is the wrong idea. The thing is, and this has been said before and I hate to repeat it, but what I am doing is we have a lot of Shearer Hills-Ridgeview people here tonight and we didn't want to make you sit here all night and make you listen to us, so we have compacted it down to just about five speakers, so I feel the repetition of this one thought is important. And the thought on that is that you're

not helping the situation by increasing the area and the people impacted. Thank you.

MR. LABATT: Next is Joseph Kenny and then I'd like to go back and pick up Charles Nourie after Mr. King.

MR. KENNY: Well, you're a good pal. You expect me to talk after my wife?

MR. LABATT: You signed up that way.

MR. KENNY: I didn't know it would come out this way. But I would like to pass for the moment and hold myself in reserve for rebuttal, if necessary. And I -- also to tell you a little story about noise, if you want me to tell you.

MR. HARRIS: Would you like the story?

MR. KENNY: Okay. I'll pass and reserve myself for rebuttal.

UNIDENTIFIED SPEAKER: Say what you got to say.

UNIDENTIFIED SPEAKER: Wait. This isn't a debate.

MR. LABATT: Charles Nourie, please.

MR. NOURIE: Thank you very much. I don't need to take the good people's time here anymore. I think Ida Kenny summed it up very clearly, very articulately. And I think her remarks that she made

regarding transferring trash to your neighbor's property, we don't want to overlook that either. I think the people that do not live in the air traffic pattern are there because they bought away from it intentionally. I'm a native of San Antonio and I did and I made sure that I didn't buy under the airport traffic pattern. And I think it would be a great injustice to change the traffic pattern and run it back over my house. And I know the City won't lower my tax payments.

MR. LABATT: Hubbard Parks and then Evelyn Galbreath. Mr. Parks is not here? Okay. Evelyn Galbreath and then Marvin Smith.

MS. GALBREATH: Well, I think that anything I had down here to say has already been said so I don't see any point in taking your time. Except that nobody has mentioned what does the vibration do to people. Lots of -- Incidentally, I live on Shropshire which is right at the end of the runway. Practically all of the flights take off there. And when we go out in the yard to read or do something, we have to put ear plugs in. But when we put the ear plugs in, it just vibrates the whole body and you can just feel it. And I don't know what that does to you. And also the springs on our

garage door. When the planes take off, you can just hear them vibrating all through the house. Another thing I've noticed is if the cars are left outside there is a residue all over them if you don't put them in the garage. And I'm told that this is jet fuel. So, we're evidently breathing this, too. And this kind of concerns me. And I'd kind of like to know what effect that's having on us. And I just would appreciate anything that can be done to alleviate our problems so that we could enjoy our backyard, have barbecues like other people. And we bought this 30 years ago. And, unfortunately, it was February and the planes were going on the north-south runway at that time and we were not told that we were in the flight pattern. And I guess we were stupid enough not to think about it, but we didn't, and we were put there. And it's too bad that that area was zoned residential at that point in time. But anyway, that's about all I have to say. Thank you.

MR. LABATT: Marvin Smith and then I think the next name is Paul -- is it Peltier?

MR. SMITH: I live on Shropshire, too. I just want to tell you that the airplanes come over and break some of my windows in my house, cracks the

windows, and they drop JP 4 -- or JP 5 whatever they use out there -- on your cars if you leave them outside. And they come over my house. But I've got a window now that's cracked in my kitchen on the west side of my house. The vibration of airplanes cracks some of the windows.

MR. LABATT: Paul Peltier. And after him is Marilyn Lanfear.

MR. PELTIER: Yes, I'm Paul Peltier. Ridgeview. I wasn't in Mrs. Kennedy's consorted effort so I might be wasting your time. I thought she gave a very good presentation of my views on it. I must confess that I heard of this about a year or so ago, and they raised three points on safety noise and fair share. Well, they have touched on -- I thought they was running smoke screen on the first two issues to get the third one. I still agree with that. But I think everyone is side-stepping the safety issue. We have seen what national press has been able to do to our darling ex-Mayor on a little indiscretion. And if we were to have an accident using the inappropriate runway -- what was crosswind -- and it was found out that it was because of political will, I think it would pretty well kill the tourist industry -- what we have. What was

recently very highly publicized, I remember a large check, something like a half a billion of some sort about two weeks ago -- and we're talking about us here on the ground. The people who survive are the people on the ground. The one's who are killed in an accident are in the air. And the critical time for my understanding is when they're close to the ground. We're at a very low speed and if we were to have a major accident of that type, you know, I'm not want one (sic) and I hope never is, but it would not do our image any good. And thank you for your time.

MR. LABATT: Marilyn Lanfear and then Jerry Spengler.

MS. LANFEAR: I'm Marilyn Lanfear and I live in the Northwood area. I've lived there since 1958. I'm sorry that I did not foresee the noise problem in 1958. It doesn't seem fair to me that 90 percent of planes should go over my house. But I have discovered that they go over there whichever way the wind is blowing. I have been keeping a calendar on that.

On September 26th, 1989, for instance, a plane took off over my house at 6:45 in the morning and I knew the wind was coming from the north and I

called and checked and it was 11 miles an hour, coming from the northeast. It was coming from the other direction. I run every morning at dawn with some of my friends. I may as well do something because the planes wake me up about 5:30 anyway. And we have noticed that the planes are so low sometimes that we can even see the seams in the, you know, in the metal. I can read the numbers, sometimes, on the planes. And I'm nearsighted. I've also noticed that some planes make much more noise than other planes. I've gotten to where I can recognize the Stage 2 from the Stage 3. Now, I also read the newspaper and I have noticed in the last year, especially, that there've been a lot of airplanes that had -- parts that have fallen out of the sky. Inevitably, of course, the airplane falls out of the sky after the parts fall out. I think, this is my point, I don't want to talk too long. The planes that are losing parts are the old planes. The old planes are the ones that are making the most noise. So I think that if we mandate, don't ask or don't expect, but mandate -- if we, the City of San Antonio, mandates that those Stage 3 planes be used, then we'll all be a lot safer. I know when I fly I want to fly in a safe plane. I want to fly in a new

plane. I want to fly in a Stage 3 plane. When my children fly, I want them to be in a safe plane. When you fly, I want you to be in a safe plane. So I don't think we can fool around with just asking. I think we need to mandate that as other cities have already done. Thank you.

MR. LABATT: Jerry Spengler and then Bruce Gould.

MR. SPENGLER: I'm Jerry Spengler and I live at 7106 McCullough. At one time I lived over in Alamo Heights and also on Nottingham in the Northwood District. I bought a house over there. I realized I was under the airport and it was noisy. Those are the days of propeller driven planes and we had no air condition. So we got as good an impact as anyone did from it. But, I was quite aware of that when I bought the house and I have no one to fault but myself. Now today, we're trying to move responsibility from the area where people bought, knowing that they were under the airport, and move it to our area which has not had that problem before. But the overriding of consideration of all, of course, is the operational problems, Kelly and Randolph and the shortness of the runway. And I would hate to have millions of dollars spent to

lengthen that runway for no good reason and really when it is not practical to use it. Those -- That airport was designed a long time ago. Now, as a member of the Shearer Hills and Ridgeview Association, I would like to say that the real key to the problem is noise abatement. And all of us over there, combined with everybody all around the airport and all over San Antonio, I hope to work toward noise abatement and we will support any effort in that direction. I thank you very much.

MR. LABATT: Bruce Gould.

MR. GOULD: Okay. I'm Doctor Bruce Gould. I'm an industrial psychologist. I do live east of the airport in the impacted area; I have for over 30 years. What I want to talk to you about today is to acquaint you with the nonauditor effects of aircraft noise on human performance as well as on health. There have been a few words, I'll skip around most of those and add a couple of others. To do this, our group reviewed several dozen studies. And to be candid, most of them fail from a standpoint of adequate controls particularly with regard to age, sex and social economic status. They also tend to fail because they do not have objective measures, mostly their taking attitudes. But restricting my

comments to what I consider to be a conservative view of those studies which are extremely well done, I find that in the performance area -- and I'll just limit myself to effects on children -- that what is happening is a very decided decrement in children's ability to tolerate stress, frustration.

In addition to that, there are some fairly significantly documented effects on learning ability, especially with regard to reading grade levels. And that is a very cumulative effect. The effect on the first few years is magnituded (sic) -- magnified in later years.

Now, what I really want to talk mostly about, though, is the health effects, and there the evidence is that they do tend to be stress-related. And what they tend to do is to activate the Autonomic Nervous System. So what we're talking about is cardiovascular, gastric, sleep disorders, those types of involvements. Now, there's significant evidence of these, and just one simple example of one of the best studies I've seen, it was done in Amsterdam in the Shirapold Airport where over a seven-year period, they got objective heart -- objective measures on 6,000 people two years before they put in a new runway, up to five years

after they implemented a runway and took a wide number of measures. Extremely well done longitudinal study from which you can draw cause and effect brief relationships. Most of the studies, you couldn't draw that. But the conclusions of the studies simply come down to saying: There is increased blood pressure abnormalities in children. We're talking about increased hypertension, blood pressure and adults requiring medication. We're talking about increased treatment for heart trouble.

Now, a very significant factor is, that if you look at the actual medication dosages, they're proportional to the number of aircraft overflights. And it's not a linear relationship. It goes up very slowly at first and then after a certain point it decreases at a much greater rate. There are sleep pattern disruptions. If you look at high average noise levels, actually above 75 decibels versus lower average noise levels around an airport, their study was 57. What you find is those in the high impact areas get less sleep, and of what they get, most of it is light sleep. So they get less deep sleep.

One other area, if you look at -- as far as there's increase -- as far as mental health,

there's increased anxiety, emotional distress and mental hospital admissions. However, there is only evidence that in those cases where individuals had a predisposition -- there's no evidence to specifically be able to say that if you didn't have a predisposition before subjected to it, then, in fact, you would have it.

So what I've told you, the results of studies well documented in my estimation -- cardiovascular, sleep, emotional and learning noise effects -- and those effects are related to higher decibels and frequency of overflights will help the citizens is the priorty.

So what I'm suggesting are two simple things. The first one is adapt noise restrictions on the Stage 2 aircraft, and I think you've heard a lot of evidence that something is wrong. San Antonio is not getting its fair share. The second one is minimize the frequency of overflights by runway rotation. Now, we can't -- we're not talking 50/50, but from what I've heard and studied, it sounds to me like the prevailing wind situation is sufficient to permit a sharing. Thank you very much.

MR. LABATT: Virginia Cooper and then Dan

O'Connor.

MS. COOPER: I am Virginia Cooper. I moved in the neighborhood southeast of the airline in 1954 and have remained there. The airport was there but not the same kind of airport. Loop 410 was not even there. San Antonio's population was only about 410,000 and our only major commercial airline was Braniff and it was certainly not a completely jet airline at that time. Sixty percent of the houses in the area were built in the '50s. I believe that somewhere during our preoccupation with growth, we lost sight of planning. Development along Loop 410 leaves us with an airport surrounded by high-rise buildings that have decreased its options for variable flight plans.

I have had house guests in my house the past week and I was embarrassed by the inability to converse and the lack of sleeping time. My guests, from Washington, D.C., commented that she was sure that national airports did not schedule flights between 11:00 a.m. and 11:00 p.m. and 7:00 a.m. She was awakend by the American 5:00 o'clock a.m. flight to Tulsa via Dallas. I find this time ridiculous beyond belief. There are at least four commercial flights between 5:00 and 6:30 and several after

midnight. I believe that gives me five hours of uninterrupted sleep.

I therefore believe my city owes me and my neighbors its best effort to protect us and our property from damaging noise. I question the conclusion concerning the use of alternate runways and flight paths. I see no reason not to reward the airlines who bring in quiet planes and safer planes. And by all means, stop the 12:00 a.m. to 6:30 a.m. flights. And do not tell me the airport was there when I moved in because this is not the same airport.

MR. LABATT: Dan O'Connor and then Carl Warrell.

MR. O'CONNOR: My name is Dan O'Connor. I live in the 70 to 75 Ldn area. I believe the TransPlan Noise-Compatibility Program does not adequately focus on options. They can ease the impact of airport noise. From an inspection of the Noise-Exposure Maps, especially those maps that display the various land uses in color, it appears clear that the flight paths could be varied on Runway 21 to route traffic over undeveloped land adjacent to the McAllister Freeway, or U.S. 281, avoiding direct flights over residential areas.

Similarly, it should be possible for departures, Runway 12-R, to follow Loop 410 east, avoiding direct traffic over residential neighborhoods, including nine elementary schools. Both suggested procedures could be executed at some 600 to 1,000 feet altitude and both would be within allowable flight envelopes. We believe this was the practice some years ago. It's obvious to me to see the change in flight patterns over the past five years to bring the aircraft more directly over residential neighborhoods.

After inspection of the proposed Noise-Compatibility Program, I am somewhat distressed to see a lack of direct action or intention to cure the noise problem. Of 12 program elements, four are committees to discuss the problem of personnel to monitor noise and complaints. Four deal with asking pilots to voluntarily reduce noise or to continue current efforts. One deals with land use planning and zoning. The problem is, much of the land most severely impacted is already completely developed. One deals with the Disclosure Ordinance describing the problem; not fixing it. Two are programs for purchasing homes and adding sound insulation in the most severely impacted

areas. These are dependent on future funding. I think these, also, in the spirit of what's going on in San Antonio -- all over San Antonio -- is the Support Neighborhoods. I think these destroy neighborhoods.

Only one element will take specific, effective, realistic action as number 7 to increase the use of Stage 3 aircraft. And that will not happen without strong direction and strong action. I suggest three noise control strategies: Stage 3 aircraft incentive has been mentioned before, rotational runway systems and flight path modifications variations, specifically, to carry the flight traffic down 410 and 281 to avoid residential neighborhoods. Thank you.

MR. LABATT: Carl Warrell.

MR. WARRELL: I'm Carl Warrell. I'm the manager in San Antonio for Southwest Airlines and I represent myself, our company and 600 other employees of Southwest in the San Antonio area. We've been serving San Antonio International Airport since June '71. This is a long letter. I'm just going to read a very small part of it. The complete letter is in the records. In an effort to mitigate much concerns and abate airport noise, Southwest

Airlines has embarked on an ambitious and costly fleet-acquisition program whereby we are requiring the most modern, quiet airplanes available. Towards this goal, Southwest Airlines were the first airline in the world to operate the Boeing 737-300, the quietest airplane of its size and type. We flew our first one in December '84. At this time, we have 46 of them. That's 50 percent of our total fleet. And as we are the most -- have the most numerous flights in and out of San Antonio, currently, we're operating 68 percent of Boeing 737-300 which is one of the better Stage 3 aircraft.

This commitment to use the quietest airplanes available is remarkable for a company our size in light of the fact that each airplane costs approximately $25 million. Our commitment does not end there, however. In March of 1990, we'll become the first airline in the world to fly the Boeing 737-500, a newer Stage 3 airplane designed and built to our specifications. Preliminary reports are that the 737-500 will be even quieter than the 737-300. We'll take delivery of ten of these in 1990, provided Boeing gets their strike settled.

We support the recommendations that have been made here tonight. We're going to take every

step we can to support it and I don't think that anybody is expecting a reward for operating Stage 3 aircraft. We have the most numerous at this time, in San Antonio, but I think every carrier out there is looking to get more in their hands and operate them in and out of San Antonio. Thank you.

MR. LABATT: William C. Thomas and then Alice Roos.

MR. THOMAS: My name is Bill Thomas. I live at 618 Country Hollow in the 75 plus Ldn area. It is not unusual to get bumped out of bed in the morning at 5:16 on a regular basis. I have people who come to my house -- I'm thinking about asking you, Weir and Hasslocher, to come and occupy one of my upstairs bedrooms some morning and see just what happens to you. The truth is this meeting was to have been held in May and thank God we're finally getting around to it here at the end of October. But something has to be done. OSHA wouldn't allow an employer to permit his employees to work under the ear trauma that we have been (applause starts; can't hear end)and is into.

We all know how much air traffic has increased here. What are we trying to do in the city? We're trying to develop tourism. What does

that mean? That means more airplanes in and out, more people in and out. Well, we've accomplished a good bit of that. I can tell you that certain times of the day within two minutes there are two planes and two more minutes and another plane go right over my house. As many as three; just one right after the other. Anybody disputes that I can prove it. I mean, I often wonder how in the world they can take off that quickly with the turbulence that's left by the last airplane.

We have heard a lot of suggestions offered here. Nobody is saying move the airport. Nobody is saying that we can't live with this. All we're saying is that we want a rational, reasonable approach to noise abatement, and we want it now. We don't want to wait any longer because it's getting....(Applause).

This Stage 3 incentive idea, the idea that if you -- you offer some kind of an incentive to aircrafts that are coming in here so that they'll fly Stage 3 aircraft, that's not a bad -- bad move because if you don't do that, they'll go where they are getting the incentives and we'll get the traps -- the rattle traps brought in here. Now, I've got to say also that that really should be coupled with

a curfew of Stage 2 aircraft, not Stage 3 but a curfew of Stage 2 take-offs. Don't permit them to take off between the hours of 11:00 p.m. and 6:30 a.m. I think that's reasonable, too. The Rotational Runway System, when you couple that with a safe flight path modification and variation where you go over the 410 and 281 and at the same time you put some out each way, will just keep you from having to go through two and three of these in just short order.

I'll tell you, there are other things -- I had many other notes that I wanted to talk about but we've taken so much time tonight. I want to finally talk about structural problems. Somebody raised the issue just a little bit about it being caused by the heavy vibrations that are caused -- produced by the noise of some of these aircrafts. And many residents have had these thermal pane windows either shatter or have the seals inside the panes broken. This allows moisture to form inside and fog the window. It costs you more to fix them than it does to take them out and replace them. I have had to replace three at $200 per window and I probably presently have two more of the large ones and several of the smaller ones that will need

replacement shortly. I also had a 200-pound antique mirror and this was put on the wall with big C-hooks that were three-eights of an inch in diameter and into the studs, and the other part of it was an eyehook that was three-eights of an inch in diameter screwed into the frame and hung on this thing, and that fell off the wall. It was almost destroyed. I had it repaired at some expense by the insurance company just a couple of years ago. This was done by the kind of vibrations that we're getting at my house. And I'll tell you this right now, if you were to adopt the idea that you want to buy somebody's house, I'll be the first one to get up in line and let you buy mine. Thank you.

MR. LABATT: Alice Roos.

MS. ROOS: My name is Alice Roos.

MR. LABATT: And then Bernice McFadden.

MS. ROOS: Many, many things have been said that I wanted to say so I won't repeat them. Being a professional educator, I personally interviewed a number of the principals who live in the area around the airport. And I have had an eye-opener in discovering that education is suffering. And I do want to say that the quality of education is definitely being impacted by the noise

level.

Many good suggestions have been said tonight and I think once neighborhoods fight against neighborhoods, we're going to beat our purpose. We all want a quality of life and we do want to do something. And I beg our City representatives to really do put some teeth into this because there are some solutions that can be done. Thank you.

MR. LABATT: Beatrice McFadden, please.

MS. McFADDEN: Hi. My name is Beatrice McFadden. I'm a professional realtor full time in the north part of San Antonio. My husband and I bought a garden home off Lawndale between Broadway and New Braunfels three years ago during the time that the airplanes were flying off the 3-21 runway. I was my own realtor and perhaps had no one to blame but myself, but for six months there were no airplanes flying in the direction in which we live. My real concern and my real point for wanting to speak for just a few minutes, however, is real estate, in general, in San Antonio which we have talked about, all of us, from time to time during this evening.

We want to attract people to San Antonio. We want to find nice homes for them and nice

neighborhoods and all price ranges and it's been my experience in the last few years, especially, that because of general depressed values in real estate, in San Antonio and in Texas, that the nice areas -- many of the nice areas in all price ranges for the schools are good and the trees are nice, are in the flight pattern. I'm speaking of all the areas that we have mentioned this evening. And because this is a real defect in something that we have to talk about and something that people notice immediately, the prices of the properties are further depressed and the sellers get less for their properties than they would and our city gets less in taxes than we really need to derive. The Bexar County appraisals go down and I think -- I think the airplanes and the noise level of the airplanes has contributed tremendously to the depressed real estate market in a very beautiful city. And I would like to see the market improve, sellers get more for their properties and our taxes be increased so that we can enjoy a better life in San Antonio.

MR. LABATT: Richard Kelley and then Sylvia Gonzalez.

MR. KELLEY: I'm Richard Kelley and I reside in the 75 Db zone in Northwood. I'm sorry

the man from Southwest left. I think Southwest has been a very good neighbor for the City of San Antonio and would like to applaud his airline for doing what so many of the other airlines, Delta, Mexicana and some of the others, have not seen fit to do and is put upon us the Class 2-type aircraft that have been -- that they could not use in others places, such as Chicago, O'Hare; Washington; Dallas; New York; Los Angeles; St. Louis. And New Orleans is developing its own noise-abatement program at the moment.

One little bit off the talk I wanted to give -- one thought, I come from air traffic control. I had a number of years in air traffic control and I do understand a few of the points that have been brought up on both sides. The one point, however, is that air traffic control is based on the safe and expeditious flight of -- or movement of air traffic. Now, safe does not only include the people in the air but also includes the people on the ground. Expeditious is not to be done at the expense of safety.

It's our desire to get some relief from the unnecessary noise through noise abatement and excessive, unnecessary exposure and a possible

disaster deriving from this. We fail to understand why the rotation of runways seems to have been arbitrarily excluded from consideration. I'd like to dwell just briefly on calm wind. What's calm wind? What's a calm-wind runway? Calm wind is a wind that is five knots or less. Five knots or less is not going to really give any undue concern for the safety of a Class 2- or Class 3-type aircraft. We have seen this in the past. We have seen it last year when the use of a crosswind runway was used for these type aircraft with no harm coming to the aircraft, only the harm coming to those residences who were affected by it.

In addition, ATC, air traffic control, does not have the final word as to the runway utilized by the pilot of the aircraft. The pilot has the ultimate decision and responsibility for the safety of his aircraft. I, as a comptroller, could tell a pilot to taxi to Runway 30. If he wanted to use 21 and requested it, I was obligated to offer him 21 so long as it did not impair other traffic. So ATC and the pilot, and the pilot being the ultimate decision maker in this respect, not the City, the City is responsible for the airport being there, the upkeep of the airport, the taxation and

so forth. They are not responsible for the safety of the airport. They're responsible for the fire departments, ambulances and things of this nature who service the airport in a safety way, and the police. From March of 1986 until October of '86, the quote "calm-wind runway" was quoted to us and they used the opposite -- the Crosswind Runway to no detriment to anyone. Okay. I have lots more to say but I won't tonight.

MR. HASSLOCHER: The next person to speak will be Sylvia Gonzalez. Mike.

MR. LABATT: The next person will be Mike -- I apologize. I cannot read your last name. You live on the 2600 block of Country Square.

MR. HASSLOCHER: Charlie R. Roberts followed by John Aultman.

MR. ROBERTS: Madam Mayor, Councilman Labatt, Councilman Hasslocher, ladies and gentlemen, much of what I was going to say has already been said and I won't unduly lengthen this very informative evening, but I do want to say, as I'd indicated earlier, a question that I have some concern that the listed alternatives in the report are flawed by the discarding of some of the possible solutions to the problem which I think all of us

recognize as very real and very pressing. In particular, I would just point out by way of repetition with regard to my earlier question is that I have some concern about a comment that's contained in the TransPlan study provided by the Airline Pilot Association. Specifically, that comment says that the Association wants a national noise abatement policy. This sort of thing could give rise to another reason for delay of a solution that's sorely needed in San Antonio and I guess I have to express that I'm a lawyer and so I have to express surprise occasionally when professional associations such as that evidence their lack of knowledge of things. I'm surprised they don't know that such a policy exists. As matter of fact, the Department of Transportation, effective November the 18th, 1976, published an aviation noise abatement policy and then in 1979, Congress passed aviation safety and noise abatement acts. So, I'll just make a point that some of the data and some of the premises, some of the assumptions, I think, in the plan, in the proposal, are flawed.

More particularly, I'd like to address the fact that the policy and the act of 1979 was well in position but the United States Supreme Court dating

back as early as 1946 clearly established that the responsibility for noise abatement, noise abatement actions and individual airports is clearly the responsibility of local government and we want that duty fulfilled by our local government here in San Antonio. The variety of airports in the United States requires that airport noise reduction strategy not be generalized. It's important that it not be implemented on a national basis. It is something that affects individuals and neighbors as we heard hear tonight. And individuals in cities like San Antonio and we want the solution to be one that suits San Antonio. And, so, with that in mind, that is, the law firmly establishes that the airport proprietor, in this case, the City of the San Antonio, is responsible for the consequences which attend the operation of the public airport. And I strongly reject any suggestion that there's any federal pre-emption in the area of local noise abatement and I seem to get that suggestion from some of the earlier comments.

It's only by the use of local government power that the City can respond to the citizens' needs to reduce the aviation noise and God knows we have aviation noise in the City of San Antonio.

It's the local government who should be concerned and have the responsibility for the health, safety and welfare of their citizens, and I don't mean just voicing that concern. I mean doing something about it.

And in that regard, I think it without question that noise abatement procedures which restrict air travel, to reduce the negative effects of airport noise, are clearly within the authority of the City of San Antonio and we have, at least, to expect that of our city council.

MR. HASSLOCHER: All right, Mr. Roberts. Thank you. John Aultman. He'll be followed by Jim Morris.

MR. AULTMAN: Good evening, I'm John Aultman. I live at 126 Melba. I believe everything that I really wanted to say has been said, but with what Mr. Warrell -- I guess his name was, from Southwest had said -- I think it might be appropriate for city council to make some kind of award to airlines such as Southwest for at least showing the way toward noise reduction. And I don't see any teeth in this thing as far as what the airlines are required to do to cut back on this noise level that they're creating. They are

creating the problem and I don't see anything here to really eliminate this problem. I don't understand why we have to put up with 100 percent more noise than any other large city in the United States. I don't understand the problem. I think it would be appropriate, though, to, maybe, elect Southwest Airlines as the San Antonio airline or something of that nature, at least, to award them for their attempt to help solve our problem. Thank you.

MR. HASSLOCHER: Jim Morris. All right. Bryon Reed. Reed.

MR. REED: Madam Mayor, Councilman Labatt, Councilman Hasslocher, good evening. My name is Byron Reed and I'm a member of the now infamous technical committee. It's a pleasure to have this opportunity to comment, participate in the Federal Aviation Regulation Part 150 land use and noise compatibility-study for the San Antonio Airport. As a member of National Business Aircraft Association, and representing over 6,000 companies that use aircraft in pursuit of business goals, our position is very positive in support of this program which will strive to reduce the impact noise on the community surrounding the airport.

As you may know, the study brings together all elements of the airport community, airport neighbors, airport users and FAA. To better balance the interest of all concerned with all parties participating, the goal of a balanced noise program emerges. This participation is especially important in the noise-compatibility program phase. This phase, again, through the cooperation of all parties provides a mutually acceptable solution that while not absolutely perfect, does indeed provide a rational and a reasonable end product. It is our intent as corporate users of the airport to be the best possible neighbor to the surrounding airport community and to still provide a basic business service. We not only welcome this opportunity, but look forward to the opportunity to work with our neighbors who live next to the airport. As a member of the Technical Committee, I want to assure you our first and overriding concern is the safety for everyone concerned. And I'd like to talk about that point a little bit.

Now, there's been a lot of allegations made that we've thrown away a lot of good solutions. Well, I think I can personally guarantee you a chair at MIT or the University of Texas or the university

of your choice if you can come up with some of the laws of physics that would have to be changed. I really think that would be quite possible. We are very concerned that this is an emotional problem. I live close -- I live at the 65 Ldn problem and we really want to try to do something about it and besides, if I didn't, my wife would really fuss at me because she thinks a lot of Virginia Cooper and I don't think I could get out of here tonight if I took too big issue with her. Thank you.

MR. HASSLOCHER: Victor King.

MR. KING: Mayor Cockrell, Councilman Labatt, Hasslocher, I think everything's been said just about that I could add, however, I would like to say, you know, a sage individual one said that the mind can absorb only as long as the seat could endure and I think the absorption of mind has gotten kind of scant here at this point of the evening. But for anyone, I live two blocks to the west of Mayor Cockrell on the wide, beautiful street Oak Glen and for anyone to intimate, to say that the noise level has not increased in the last 22 years that I've lived there, they're either displaying their total ignorance or they have no feeling for the truth because I've given back lawn parties, I've

given luaus, I've given swimming parties in the past in my backyard, but you can't do that anymore. The taxes on my place today are more than the total payment was when I bought it from my former city manager and the quality of life in the outside has gone down. We've done a lot with our home to insulate and cut down the noise inside but we still have problems with the telephone calls and television when the planes come over four and five at a run and they use our chimney, I think, as a guide post as they come out that way because they're right on top of us. I can look straight up and there they are.

So the only thing I would like to say this evening is I'm appalled in -- I haven't really been involved in this total thing but I attended a meeting about a couple of months ago when we did have a meeting and I was appalled at the attitudes that were displayed then. I was appalled somewhat at the attitudes that were displayed tonight. I haven't heard anyone from Northwood area say that they want to push this off on anybody. They said they'd like to share it and they're not pushing off, they'd just like to share it. But we have had the most insipious (sic) opposition to any sharing.

There's no room for compromise here but I would like to offer one more compromise and let's hear the vociferous opposition to that. They don't want the noise so let's just cut my taxes in half and if you need that money -- if you need that money, put it on those people who enjoy the quality of life and should be willing to pay for it. And it won't stop the noise, but it's certain to make it a lot easier to live with. Thank you.

MR. HASSLOCHER: Jerry Jaeckle followed by H.J. Moore and W.E. Jauer.

MR. JAECKLE: Ms. Mayor, Mr. Labatt and my good friend Jimmy since he had my street retopped and finally got the ditch, you know, going since 1972 we've been working on it. I'm laying my watch down here and I'm only talking for three minutes and thank God I followed a gentleman that had my thoughts in his mind. The heavy talk that I heard this afternoon or this evening was from Mr. Roberts. He talked about teeth and transplants and, man, that's right down my line because I'm a dentist. I don't know what that had to do with what we're talking about tonight, but the last gentleman that spoke made more sense than anyone that I've heard here tonight. I take my hat off to what has been

done for Northwood and that area because we've got something going. I went to the closed meeting that Mr. Labatt had because it was announced in the paper that it was going to be an open meeting and as soon as I heard that it was a closed meeting I went up and told Mr. Labatt, "I'm leaving right now because nothing can be accomplished with as many people as that were present at that meeting." (To Mr. Labatt) If you remember, right?

MR. LABATT: (Nodding affirmatively)

MR. JAECKLE: I'm thanking you-all for doing so. I'm thanking you-all for what you're going to do and it's an open bunch of seats that we're looking at now, but there were a lot of people here tonight that had interest in what's going on. I am a very simple person when it comes to figuring out things. If it had three runways heading south because the prevailing winds, 75 to 80 percent out of the year come from the south. If they had three different runways, I could put up with it every third day. But the gentleman that spoke before me was the one that should have spoken first because I think he said it as plain and as understanding as everyone can understand it. Share.

If we had three runways, one way one day,

I can put up with it one out of three days and then he would know when to throw his luaus, see? Throw them on the second or third day. I said I was going to take three minutes and I've got another 30 seconds left and I want to compliment the front table and the few people that are still here because my interest is til the last one leaves. I have lived at 506 Country Lane since 1958. I had a putting green that was washed away, had lights on it and everything else. The City -- Mrs. Sultenpuss -- (Whereupon, timer goes off) Well, give me another few minutes 'cause there ain't nobody here going to leave anyway. Anyway, I'm through and thank you-all and I appreciate the work that you-all have done and I appreciate the work you-all are going to do.

MR. LABATT: Mr. A.J. Moore and then W.E. Jauer.

MR. MOORE: Mayor, Councilmen, the gentleman earlier brought in OSHA. I recently retired from a major company. We used aircraft engines and many other turbine engines as prime movers. Some of these were in isolated places and we had to comply to the letter with the decibel readings or they could walk in and shut us down. Now, the aircraft industry is an industry, I

believe, which should fall under the jurisdiction of OSHA because they're the safety group. Now, I may add, our industry produced, probably in one day, what San Antonio Airport produces in six months. So it is very critical and I think OSHA should be brought in since it is an industry. Also, I would like to comment, if I took my pickup or car and put straight pipe on it and drove around downtown, I'd probably be thrown in jail and be so far back I wouldn't see light back for three days. So I beg that some interest be put in the safety of the people. But we know you can't move the airport, we want to live, we want to work with you, but we want to work rightfully. Thank you.

MR. LABATT: W.E. Jauer. Not here? Okay. Let's go to Stephanie Coleman, please.

MS. COLEMAN: Good evening, Mayor Cockrell, Councilman Labatt, Councilman Hasslocher. My name is Stephanie Coleman and I'm President of the San Antonio Economic Development Foundation that is a privately funded nonprofit organization. I appreciate this opportunity to be here with you this evening because I think this matter is vitally important to economic development. First, I would like to commend the officials of the City of San

Antonio and the Aviation Department for undertaking this study. Your proactive steps are reflective of the responsible actions you have consistently undertaken in order to mitigate the noise levels in the impact area of the airport. I view the airport from two perspectives: one, as a neighbor. I'm a resident of the northeast and live within a short four-minute drive of the airport. But from another perspective, from the economic development perspective, however, I see the airport as a vital tool in San Antonio's growth.

Airports are simply that, air ports (emph. on pron.). The economically successful cities of the past shared a common feature: sea ports. New York, Boston, Charleston, San Francisco. Today, the cities that continuously prosper offer major airports: Dallas, Fort Worth, Chicago, Atlanta and Los Angeles and every economic development study that measures factors critical to urban growth accessibility to markets consistently ranks at the top two or three criteria.

We must remember that today's markets are no longer our markets of South Texas and Dallas and in Houston. Today's markets are global markets. Without frequent and easy access to a broad range of

these markets, San Antonio cannot realistically participate as a world-stage player.

San Antonio has 48,000 jobs dependent on the visitor industry. That industry relies on the airport for the life blood of their business. The visitor industry that has contributed a great deal to our city particularly during these economically stagnant times. We must compliment the millions of dollars being invested in San Antonio by Sea World and Opryland and the proposed Hyatt resort hotel and others to ensure visitors have ready accessibility to these destinations.

I appreciate the steps the City is taking to recognize and respond to the important concerns of the airport's neighborhoods. At the same time, I urge you to seek balance with our city's need for trade, jobs and vitality. Thank you.

MR. LABATT: William F. Borellis and then Barbara Mills. Is Mr. Borellis here? Okay. Is Barbara Mills here? Elliot Johnson.

MR. JOHNSON: My name is Elliot Johnson. I've lived for the past 15 years at 4506 Briar Forest in Northern Hills. You'll have to depend on -- I don't have any equipment to measure sound, you'll have to depend on my ears either watering my

front lawn or sitting on the back porch watching planes come in and out of the airport. The past 15 years, I have never been awakened by an airplane. The traffic increases over my house on the weekends and in the evening when Randolph Air Force Base does away with their training. So in all that time, I've never been awakened by an airplane but I have, on many occasions, by trains. I think that's where we need to have some hearings, too. Thank you.

MR. LABATT: Richard Tinsman and Joe Barfield.

MR. TINSMAN: My name is Richard Tinsman. I'm a pilot, I'm a lawyer, I have a plane based at International and I used to be on the Airport Advisory Board. In reading the report, I was somewhat appalled that TransPlan did not include any results from any other cities of their noise abatement effort. I don't believe in inventing the wheel again. If this report had been turned into me, I would have flunked the author because I think they should have said, 'Here are other cities which have done effective work in abating noise and here's the way they did it.' And for an example, in paragraph 10, in summary -- I've read the whole report -- it says, "Placing a surcharge on aircraft

operations between 10:00 p.m. and 7:00 a.m. or on a particular type of aircraft, Stage 2, could result in the airlines deferring the introduction of new air service to San Antonio." Not one comment is in there about what other cities have done and what the results have been where other cities have put a surcharge on Stage 2 aircraft or have either prohibited or put extra money for aircraft coming in between midnight and 6:00. As to what that has done to their aircraft, the introduction of inservice. One of the things that the City Council is here to do is to take testimony, and we only have three here, and then have the whole report presented to the City. I would think that the City should tell TransPlan before we consider this report, 'Let's have an addendum of what other cities have done that has been effective.' There is nothing in here or in the bigger report about what other cities have effectively done and, thus, I think that's a big mistake because I don't believe in inventing the wheel again.

Other things that are in the report that I think are defective, and Council should ask them to put in an addendum, they talk about the FAA or the military without giving specific names and, you

know, it's one thing to say the faceless bureaucracy has done this and I think the addendum should be there that this particular person said it would work because I know that there have been various commanders of the bases interviewed, privately, who have said, 'Well, if you do this and this, I think it can be worked.' And unless we know from the report who they really are talking about, when they talk about the FAA, are they talking about Mr. Sabinksi who's head of the tower here, are they talking about other people? It's very difficult to really work to see whether solutions can be worked out and, again, I think this should be put in as an addendum. I think they should put two things in the report as an addendum before the Council considers it.

One, what other cities have done that have been effective and what the results have been; and, secondly, they should -- instead of using broad terms such as "the FAA," or "the military," they should put in the names of the specific people. Thank you.

MR. LABATT: Joe Barfield.

MR. BARFIELD: My position was very succinctly stated by Mrs. Ida Kennedy -- Kenny.

Excuse me. And since I know that her very well-considered statement will be in the record, I relinquish my time.

MR. LABATT: Mr. Barfield is the last person that's signed up to speak. Is there anybody else in the audience that wishes to speak at this point? Yes, sir.

UNIDENTIFIED SPEAKER: May I speak?

MR. LABATT: Yes, sir.

MR. EAGLES: My name is Gene Eagles and I live in a 75 decibel area, 100 yards from Northwood Elementary School. One thing that hasn't been mentioned in this report that I think may be of interest, it is to me, the air transportation people talk about safety and all like that, yet, it seems that there are a number of measures of noise abatement that have been done in the past in San Antonio that aren't being done now and among these things we have to consider runway layouts. These runways weren't layed out to accommodate jets, they were accommodating low-powered piston-proped engines and they needed very much to have take off into the prevailing winds. Most of the jets that fly today could take off in any direction, in light airs or calm airs. They don't need to take off into the

wind.

The other thing is the matter of profits. Airlines want to get from gate for gate as fast as and as cheap as they can and the best way that they can do that, of course, is an on-course take-off. I think the air comptroller said that they can request a certain runway. If they're going to fly to Houston, they want to take off in the direction of Houston. They don't want to take off in another direction and have to circle around. It uses fuel. So it could be that many of the airlines are requesting and using on-course take-offs and perhaps on-course landings unnecessarily. They certainly could use any number, any runway we had out there. The other thing that we have to consider is thrust reverse. In this report, it mentions noise and I'm sort of curios about what kind of noise. I live where Eastern -- thank God they're not in business anymore in San Antonio -- but when Eastern came over my house at 6:00 o'clock in the morning, they'd turn on their landing lights. It'd lift me out of bed. I could read the newspaper by it. When they hit the runway, they'd put on the thrust reverses and it, like, blew the house down. So, there's two kinds of noise to consider and one of it is they don't have

to take a short rollout to get to the gate as fast as they can. They can take a little longer roll out and take it easy on the thrust reverses. I don't think the airlines are playing fair with us.

MR. LABATT: The time is now 10:28 on the 24th of October and I declare that the FAR Part 150 noise-compatibility study public hearing is now closed. Thank you all very much for coming.

STATEMENT OF

MR. SABE M. COMLEY,
DEPUTY DIRECTOR, SOUTHWEST REGION
AIR TRANSPORT ASSOCIATION
AT THE PUBLIC HEARING IN
SAN ANTONIO, TEXAS ON
OCTOBER 24, 1989

I AM SABE COMLEY, DEPUTY DIRECTOR, SOUTHWEST REGIONAL OFFICE OF THE AIR TRANSPORT ASSOCIATION OF AMERICA, AND AM HERE TONIGHT TO MAKE A STATEMENT GENERALLY IN SUPPORT OF THE PROPOSED SAN ANTONIO INTERNATIONAL AIRPORT NOISE COMPATIBILITY PROGRAM ON BEHALF OF OUR MEMBERS CURRENTLY SERVING THE CITY OF SAN ANTONIO AND ITS CITIZENS. THE AIR TRANSPORT ASSOCIATION IS A TRADE AND SERVICE ORGANIZATION REPRESENTING JUST ABOUT ALL THE SCHEDULED PASSENGER CARRIERS IN THE UNITED STATES AND SEVERAL OF THE SMALL PACKAGE AND CARGO OPERATORS AS WELL. OUR MEMBERS SAFELY TRANSPORT WELL OVER A MILLION PASSENGERS EACH AND EVERY DAY IN THIS COUNTRY GREATLY FACILITATING OUR COUNTRY'S ECONOMIC ENGINE OF PROSPERITY.

BY THE SAME TOKEN, IT IS OUR AIRCRAFT WHICH GENERATE A LARGE PART OF THE NOISE FOR WHICH THIS STUDY SOUGHT TO MINIMIZE. WE HAVE FOR SOME TIME REALIZED OUR RESPONSIBILITY TO FLY OUR AIRCRAFT IN A RESPONSIBLE MANNER BOTH TO INSURE SAFETY AND MINIMIZE THE IMPACT OF AIRCRAFT-GENERATED NOISE ON THE NEIGHBORHOODS SURROUNDING THE AIRPORTS THAT MAKE UP OUR NATIONAL AIR TRANSPORTATION SYSTEM.

IN OUR ENDEAVOR TO MINIMIZE NOISE, WE STARTED IN THE 1960'S TO DEVELOP ARRIVAL AND DEPARTURE PROCEDURES WHICH

WOULD BE EFFECTIVE IN REDUCING NOISE IMPACTS WHILE MAINTAINING AN ACCEPTABLE LEVEL OF SAFETY FOR THE TRAVELING PUBLIC AND THOSE ON THE GROUND AS WELL. TODAY ALL AIR CARRIERS UTILIZE A DEPARTURE PROFILE APPROVED BY THE FAA AND DEMONSTRATED TO BE EFFECTIVE IN REDUCING THE NOISE IMPACT WHILE PROVIDING FOR A SAFE OPERATION. SUCH PROCEDURES ARE NOW STANDARD WITH ALL OF OUR MEMBERS, AS ARE ARRIVAL PROCEDURES UTILIZING MINIMUM FLAP (30°) APPROACHES DURING ACCEPTABLE WEATHER AND AIRFIELD CONDITIONS WHICH ALSO MINIMIZES NOISE (REFERENCE FAR 91.85c). BECAUSE OF THESE FACTS, WE FIND IT NECESSARY TO TAKE EXCEPTION TO STATEMENTS MADE IN THE EXECUTIVE SUMMARY WHICH ERRONEOUSLY CAST SERIOUS DOUBT ON OUR COMMITMENT TO UTILIZE THESE PROCEDURES WHENEVER POSSIBLE. FAA APPROVED NOISE ABATEMENT PROCEDURES ARE ROUTINELY EMPLOYED BY ALL AIRLINES AS STANDARD OPERATIONAL SPECIFICATIONS. THEY HAVE BECOME "OLD HAT" AND CONSIDERED "SOP" BY AIRLINE FLIGHT PERSONNEL.

ADDITIONALLY, OUR MEMBERS COMPLIED IN A TIMELY FASHION TO THE LEGISLATED DEMISE OF STAGE I AIRCRAFT AND ARE CONSTANTLY IMPROVING THEIR AIRCRAFT FLEETS WITH EVER-INCREASING NUMBERS OF STAGE III AIRCRAFT -- THE QUIETEST AVAILABLE TODAY. SINCE 1980, THE PERCENTAGE OF STAGE III AIRCRAFT IN THE TOTAL AIR CARRIER FLEET HAS INCREASED FROM 15.3% TO 40% WITH PROJECTIONS OF 62.7% BY 1995 AND 80% BY THE YEAR 2000. THAT REPRESENTS A TREMENDOUS INVESTMENT OF DOLLARS ON THE PART OF OUR MEMBERSHIP TO EITHER PURCHASE NEW AIRCRAFT OR MODIFY EXISTING ONES TO MEET THE STRINGENT STAGE III STANDARDS.

ANYTIME A STUDY OF THIS SORT IS INITIATED, MANY PEOPLE ARE ENCOURAGED THAT IT WILL RESULT IN ALLEVIATION OF THEIR PARTICULAR NOISE PROBLEM, BUT THE TASK OF THE STUDY IS TO REDUCE THE OVERALL IMPACT AS MUCH AS IS REASONABLE. IN THIS CASE IT WAS DETERMINED THAT THE CURRENT RUNWAY USE DID EXACTLY THAT AND TO MANDATORILY CHANGE THE RUNWAY USE PERCENTAGES WOULD CREATE A SITUATION WHICH WOULD ADVERSELY IMPACT A GREATER NUMBER OF PEOPLE.

AT THE SAME TIME, AIRSPACE CONSTRAINTS CREATED BY KELLY AND RANDOLPH AIR FORCE BASES SOMEWHAT REDUCE THE FLEXIBILITY TO REDIRECT AIR TRAFFIC DEPARTING OR ARRIVING SAN ANTONIO INTERNATIONAL.

BASED ON THE MANY ASPECTS WHICH MUST BE CONSIDERED IN DEVELOPING A PLAN OF THIS SORT, WE FEEL THE PROPOSED NOISE COMPATIBILITY PLAN FOR THE SAN ANTONIO INTERNATIONAL AIRPORT, WITH THE EXCEPTIONS PREVIOUSLY ADDRESSED, IS A REASONABLE AND PROPER ONE WHICH WILL MINIMIZE THE IMPACT OF AIRCRAFT-GENERATED NOISE ON THE NEIGHBORHOODS SURROUNDING THE AIRPORT WHILE ENSURING THE CONTINUED VITALITY OF THIS AIRPORT AS AN ECONOMIC RESOURCE FOR THE CITY OF SAN ANTONIO. ON BEHALF OF OUR MEMBERSHIP, I HEREBY PLEDGE OUR SUPPORT TO THIS PLAN AND OUR CONTINUED EFFORTS TO MINIMIZING AIRCRAFT-GENERATED NOISE IN THE SAN ANTONIO AREA.

#

SME 10/24/89

LAST WEEK THERE WERE TWO DIFFERENT EVENTS REPORTED IN THE NEWSPAPER WHICH DESCRIBED PROBLEMS IN THIS CITY RELATING TO THE NUISANCE CREATED BY EXCESSIVE NOISE.

FIRST, I WANT TO AGREE WITH COUNCILMAN LABATT WHO URGED RESTRAINT ON EXCESSIVE NOISE CREATED BY ROCK BANDS IN THE SUNKEN GARDENS THEATER. WE ALSO SUPPORT HIS OPINION THAT THE PRESENT CITY NOISE ORDINANCE BE AMENDED TO REDUCE THE ALLOWABLE NOISE BELOW THE CURRENT RESTRICTION OF 80 DECIBELS. IT CONFIRMS OUR BELIEF THAT THE CITY CAN CONTROL OBJECTIONABLY LOUD NOISE IF IT WANTS TO.

SECONDLY, THE PRESS REPORTED OBJECTIONABLE NOISE FROM VISITORS ON THE RIVER WALK WHICH JOLTED RESIDENTS FROM SLEEP AT 11:30 P.M. THE RIVER WALK COMMISSION DECIDED TO APPOINT A SPECIAL COMMITTEE TO SEE WHAT NOISE RESTRICTIONS CAN AND CANNOT BE ENFORCED. THE CHAIRMAN SAID, "THE NOISE PROBLEM CONTINUES TO RAISE QUESTIONS."

WE HOPE THAT THIS GROWING AWARENESS OF/AND SENSITIVITY TO NOISE PROBLEMS IN OUR CITY BY ELECTED AND APPOINTED OFFICIALS EXTENDS TO THE CLEARLY UNACCEPTABLE NOISE LEVELS CAUSED BY OPERATION OF THE CITY'S AIRPORT. PLEASE TAKE ACTION TO PROVIDE SOME RELIEF TO THOSE OF US WHO REALLY ENDURE OBJECTIONABLE NOISE. WE ARE NOT FORTUNATE ENOUGH TO BE JOLTED OUT OF BED BY JUST AN ISOLATED INCIDENT; RATHER WE HAVE TO ENDURE CLEARLY UNACCEPTABLE NOISE ON A CONSTANT BASIS.

THANK YOU FOR YOUR CONSIDERATION.

Mary Anderson
7402 Blossom Ln.

10-24-01

My name is Sylvia Gonzalez & have lived at 2510 Danbury for about 10 years with my husband and my 6 year old daughter

I am here today to express my dissatisfaction and frustration with the noise level that I have to live with on a daily basis.

- ~~The planes start very early and~~ ~~do~~ to late at night.
- This loud noise and vibration causes much stress, fear and anxiety to my family
- The noise completely blocks everything out for what seems an eternity
- Wall fixtures loosen & fall
- Shelf items fall
- curtain rods fall etc
- Mostly it disrupts my sleep and I awake frightened and upset (with difficulty in falling asleep.)
- I filed complaints to the airport with no resolve

I have even wrote my grievances to the tax ofc with no avail

I am taxed full $ on a property which I do not get 100% use of due to the disruption of planes & stress

SOUTHWEST AIRLINES CO.
Ron Ricks
Vice President
Governmental Affairs
P. O. Box 37611
Love Field
Dallas, Texas 75235-1625
(214) 902-1174

'89 OCT 20 P 1
RECEIVED
AVIATION DEPT

October 18, 1989

Mr. Mike Kutchins
Director
Aviation Department
City of San Antonio
9800 Airport Blvd.
San Antonio, Texas 78216

Dear Mike:

I understand that the city of San Antonio will conduct a hearing on October 24, 1989 in regard to the ongoing Part 150 Noise Study. With your permission, we would like to submit this letter as Southwest Airlines' statement for the record.

Southwest Airlines has been serving San Antonio International Airport since June 18, 1971 with regularly scheduled service by Boeing 737 aircraft. Today, Southwest is the largest carrier in terms of passenger enplanements at the airport. The frequent service and low fares offered by Southwest have conferred considerable economic benefit upon the city of San Antonio. Today, the excellent airport facilities provided by San Antonio rival those offered by any airport in the United States of America. It is a pleasure to serve San Antonio International Airport. The relationship between Southwest Airlines and San Antonio has been, in all respects, mutually beneficial.

In recent years, however, residents who chose to reside near commercial airports have become increasingly vocal in their concerns about airport noise. In an effort to mitigate such concerns and abate airport noise, Southwest Airlines has embarked upon an ambitious and costly fleet acquisition program whereby we are acquiring the most modern, quiet airplanes available. Toward this goal, Southwest Airlines was the first airline in the world to operate the Boeing 737-300, the quietest airplane of its size and type. Southwest Airlines' first commercial flight with a 737-300 was performed in December, 1984. Prior to December, 1984, Southwest Airlines had no Stage 3 airplanes in its fleet, although all of our flights were performed with Stage 2 aircraft with two engines, all of which were in compliance with federal noise regulations.

In the five years since the 737-300 aircraft became available, Southwest Airlines has acquired 46 of these wonderfully efficient and quiet airplanes. This represents 50% of our total fleet. I am pleased to report that effective with our September, 1989 flight schedule, over 68% of our scheduled flights from San Antonio are performed with Stage 3 aircraft.

This commitment to use the quietest airplanes available is remarkable for a company our size in light of the fact that each plane costs approximately $25 million. Our commitment does not end there, however. In March of 1990, Southwest Airlines will become the first airline in the world to fly the Boeing 737-500, a new Stage 3 airplane designed and built to our specifications. Preliminary reports are that the 737-500 will be even quieter than the 737-300. We will take delivery of ten of these new airplanes in calendar year 1990.

While I know the Part 150 study does not address the economic impact of commercial aviation, I thought you would be interested to know the results of a recent study conducted by the Partnership for Improved Air Travel. The Partnership, a nationwide coalition that includes airlines, unions, manufacturers, airports, and individual citizens, realized that no comprehensive national study had ever been done. Based on 1987 data, the report concluded that the economic impact of commercial aviation <u>in the state of Texas alone</u> totaled $38.4 billion. General aviation contributed an additional $2.8 billion in annual economic activity. Together, commercial and general aviation generated, directly or indirectly, jobs for over 600,000 Texas residents--8.1% of the state's total work force. There can be no doubt of the significance of civil aviation in the San Antonio economy.

Thank you for the opportunity to comment. Please let me know if you have any questions.

Very truly yours,

Ron Ricks

Ron Ricks

RR/bs

cc: Mr. Herbert D. Kelleher, Chairman, President & CEO, SWA
Mr. John Denison, Executive V. P.-Corporate Services, SWA
Mr. Carl Warrell, Station Manager, SWA-San Antonio
Mr. Bob Montgomery, Director of Properties, SWA

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. O. BOX 17093

SAN ANTONIO, TEXAS 78217

TO: Chairman Weir Labatt - October 24, 1989 Public Hearing
Councilman, District #9

Councilman James C. Hasslocher
District #10

Mr. Richard B. Hatch
Chairman, Airport Advisory Committee

Mayor Lila Cockrell and Members of the San Antonio City Council

Mr. Don Harris
U.S. Department of Transportation - FAA-SW Region
Fort Worth, Texas 76193

SUBJECT: Public Comments by Oak Park-Northwood Neighborhood Association Concerning the FAR Part 150 Study for San Antonio International Airport Submitted by TransPlan Draft dated October 5, 1989

The attached public comments were presented at the Public Hearing held at 7:00 p.m. on October 24, 1989, at the Airport Holiday Inn, 77 Loop 410 N.E., San Antonio, Texas. These comments were solicited by the legal notice appearing in the EXPRESS-NEWS, San Antonio, Texas, on Sunday, September 24, 1989.

In accordance with the notice appearing in the EXPRESS-NEWS of October 23, 1989, we will mail additional written comments by November 10, 1989, to the San Antonio Department of Aviation, 9800 Airport Boulevard, San Antonio, Texas 78216.

Sincerely,

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. H. Fryberger

P. H. FRYBERGER
CHAIRMAN

PHF:eaf

Attachment: A/S

PUBLIC COMMENTS OF THE OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION
AT THE FAR PART 150 PUBLIC HEARING, TUESDAY, OCTOBER 24, 1989, 7:00 P. M.
AT THE AIRPORT HOLIDAY INN, SAN ANTONIO, TEXAS

Good evening. I'm Phil Fryberger, Chairman of the Oak Park-Northwood Neighborhood Association, speaking on behalf of our association.

Tonight we face a dilemma. On one hand, we welcome some of the recommended actions made by TransPlan because our noise problem is so acute that any and every little bit of effort to solve it helps. We are already on record as advocates of using, in combination, every available strategy to reduce noise. Therefore, we do not want to be supercritical of the Draft Noise Compatibility Program to the extent that we would stop the forward motion of it in the FAR Part 150 acceptance and approval process. On the other hand, we believe that by arbitrarily eliminating important, promising and viable noise control strategies merely because they are asserted to be contrary to current City policy is a repeated demonstration of a "head in the sand" attitude. No qualitative or quantitative analyses appear in the Study which would substantiate this and other assertions. In addition, our dilemma is compounded by our disbelief in the basic premise of the Study. The premise is, that by 1993, despite increased daily operations (up to 80 more per day in peak months) - the additional noise exposure will be offset by increased use of quieter aircraft. We believe this to be untrue for two reasons. First, the noisy Stage 2 aircraft dominate and determine Noise Exposure Maps - not the quieter Stage 3 planes. Secondly, and probably more important, we believe the basic premise of the Study is tainted by conflicting and confusing assumptions that increased percentages of quieter Stage 3 aircraft will be used. These assumptions fail and are refuted by historical FAA data. We will examine that historical data in a minute.

We believe the solution to our dilemma tonight is to agree that TransPlan has done a satisfactory and credible job of identifying the airport noise problem and portraying its extent as of 1987. We have little quarrel with the 1987 Noise Exposure Map. It was generated by an approved FAA computer model and subsequently validated on the ground earlier this year. We don't want the $500,000 and 5 years of effort already invested to be wasted. We are unwilling to face the possibility of further delay to restudy the problem. We don't want this Draft Noise Compatibility Program to get off track by halting or impeding the acceptance and approval cycle. We must, however, express our concerns about the 1993 Baseline Case and request that our public comments tonight be included as part of the Noise Compatibility Program now under review. We have little disagreement with the 1987 Noise Exposure Map, but have grave reservations about the 1993 forecast.

In the rest of my allotted 15 minutes, I must try to let the chart speak for me.

Let me orient you on the chart. The vertical axis shows the percentage of Stage 3 aircraft, increasing upward by increments of 10%. The horizontal axis starts with the year 1980 and extends to the right to year 1993. The national trend tells us that in 1980 the U.S. commercial airline fleet was composed of 15% Stage 3 aircraft (the other 85% being Stage 1 and 2). By January 1989, the U.S. fleet had reached 40% Stage 3. This national trend is about 3% per year, and the FAA forecasts it to remain at 3% to the year 2010 when it is projected that 100% of the fleet will be Stage 3.

The dotted vertical line is where we are today. To the left of it, in solid lines, we have firm, historical data since 1980. The solid red line is data obtained from the City and TransPlan. To the right, in dotted lines, is the future. But first let us look at the past.

The FAA reported the national trend to Congress in August 1989. We have no data on San Antonio's Stage 3 operations until TransPlan revealed that in 1987 the fleet mix here was 22% Stage 3 and 78% Stage 2. We don't know how or when San Antonio reached 22%. However, if we assume that in 1980 San Antonio was even with the nation at 15% and achieved 22% by 1987, we have a 7% increase in 7 years, or a 1% annual increase - well below the national trend. On the other hand, if we assume San Antonio reached 22% by paralleling the national trend, this would indicate that in 1980 no Stage 3 aircraft operated through San Antonio - which does not seem likely. The important question really is not how or when did San Antonio get to 22%, but what happened after that. If there was an upward trend, why has there been no change in almost 3 years in San Antonio while the rest of the nation averaged3% per year?

Let us look at 1989. The national average is 40% Stage 3 / 60% Stage 2. San Antonio's average is 22% Stage 3 / 78% Stage 2. The Study states that San Antonio is "somewhat below" the national trend in percentage of Stage 3 aircraft. We say 18% is MORE than SOMEWHAT! Look where we are today! San Antonio has one-half the percentage of Stage 3 aircraft operating here compared to the national trend - and what we will now identify as the "GAP" continues to grow. San Antonio will continue to fall behind the rest of the nation unless some action occurs as a result of the past 5 years of study. Increased sensitivity to the problem and urgent action is necessary to catch up with other cities who have already taken action to abate airport noise.

Here we are now in the fourth quarter of 1989. Let us consider the implications of this historical data as we examine the future.

The 1993 Baseline forecast now becomes our focus, and the focus is blurred by contradictory assumptions. For instance, Page 77 of the Study states: "The 1993 Baseline Case assumed a 43% use of Stage 3 aircraft at San Antonio airport." Page 86 states: "The Baseline Case assumed that San Antonio would parallel the national trend which projected an increase from 22% in 1988 to 43% in 1993." Page 107 states: "Baseline Case 1993 . . . assuming a normal growth in airport actual activity but no changes in . . . aircraft mix."

Which assumption are we to believe? (1) A sudden jump to twice the national trend; (2) parallel the U.S. trend; or (3) status quo? Let us examine each separately. Let's take the most optimistic 6% line first. We are now at 22% and must reach 43% by 1993, or the Noise Exposure Map is invalid. Considering we have been at 0% for the past 3 years, we are asked to believe that we will more than double the national trend in the next 3 years. The Study talks about incentives to cause airlines to use more Stage 3. But, what does it recommend? It recommends that airline participation be voluntary and that they be rewarded by being sent a letter of recognition if they participate. We will never see 6% with such a program, and therefore the 1993 Noise Exposure Map is very suspect if this assumption was used. There's not much carrot, and there is no stick to convince airlines that they should increase the percentage of Stage 3 aircraft routed to San Antonio.

Let us look at the 3%, or national trend line. If this is the assumption used - we arrive at 32% in 1993 - not 43%. We are told throughout the report that 43% is the percentage used to analyze population affected, land use compatibility

and to justify recommendation or rejection of proposed noise abatement alternatives. If, as stated, the national trend was used for the 1993 Baseline Case - all results are biased and the picture portrayed for San Antonio is much rosier than the assumption allows.

Let us turn to the last assumption - no change in aircraft mix. This means that the current mix of 22% Stage 3 and 78% Stage 2 aircraft remains with us until 1993 along with 80 additional operations per day. Hence, not only do the noisier aircraft, which determine the 1993 Noise Exposure Map, remain - but we also get more of them. If we assume 0% growth in Stage 3 - the 1993 Baseline Case becomes very unreliable. Furthermore, if we assume the best scenario of a 6% annual Stage 3 rate increase - the Study fails to identify any reasonable incentives to make this forecast believable. Volunteerism and thank you notes won't get it done.

We don't know from the report which assumption to believe, and therefore conclude that the 1993 Baseline Case and the analyses flowing from it are of questionable value because of the confusing and conflicting assumptions on Pages 77, 86 and 107 of the Study.

In addition, we reach the following conclusions:

First, even a cursory review of what other cities are doing to help themselves solve airport noise problems convinces us that even though the TransPlan proposed Noise Compatibility Program contains some positive recommendations, the overall thrust and effect of the Study is to deny effective measures. The Study nibbles at the problem, but does not come to grips with it.

Second, the basic premise that increased operational activity will be offset by increased percentages of Stage 3 aircraft is tainted by conflicting, confusing and perhaps erroneous assumptions. Because of this, the analyses and conclusions forecast for 1993 which stem from these assumptions are flawed. FAA historical data does not support more than a 3% annual increase.

Third, because the 1993 Baseline Case is of doubtful value - the City and the FAA should reconsider those viable alternatives that have been arbitrarily rejected. Contrary to the basic premise that "Stage 3 aircraft will reduce the contour over time," historical FAA data strongly suggests that this will only happen if we make it happen. Experience nationwide shows that airport noise just does not go away by itself. We have to negotiate, make some difficult decisions, compromise, and above all - TAKE ACTION - to solve a serious problem.

Fourth, the problem is not merely a neighborhood problem. It is a City problem. We do not believe, as the Study relates, that San Antonio is "SOMEWHAT" behind the national trend. We think that our current status, about one-half of the national average, means we are WAY BEHIND. San Antonio must play catch-up if it is really as serious about airport noise abatement as the rest of the nation has been. Past inattention to this City's airport noise problem has resulted in a serious gap between the influx of quieter Stage 3 aircraft to our city as compared to other major cities in the United States.

Fifth, and last, we ask that to help close this gap and provide some relief before 1993, the City and the FAA accept, adopt and approve Appendix E of the Study, which contains the Oak Park-Northwood Neighborhood Association's recommendations. These recommendations are:

1. Provide strong monetary and regulatory incentives for airlines to use more Stage 3 aircraft here.

2. Use of a rotational runway system and other measures to distribute noise more equitably and provide more directional balance. We should balance the reduction of noise with the prevention of noise.

3. Vary flight paths and take other procedural measures to disperse noise more equitably.

4. More effective use of the Noise Abatement Officer by delegating authority to him commensurate with his responsibilities.

These recommendations dated August 23, 1989, are specifically addressed in Appendix E, and copies have been provided to appropriate City officials and the FAA. They should be adopted and put into place now to help resolve the City's problem. We urge their acceptance and approval. We also urge that despite our criticism of the 1993 Baseline Case, that the overall process not be further delayed.

We hope that our concerns are addressed and that the process will continue to focus on problem resolution rather than public relations.

Philip H. Fryberger

PHILIP H. FRYBERGER
CHAIRMAN, OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOC.
October 24, 1989

CITY OF SAN ANTONIO
DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990

November 1, 1989

Ms. Doris Anderson
2402 Blossom Lane
San Antonio, Texas 78217

Dear Ms. Anderson:

Thank you very much for your participation in the Part 150 Noise Compatibility Study Public Meeting and Public Hearing.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

"AN EQUAL OPPORTUNITY EMPLOYER"

CITY OF SAN ANTONIO
DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

November 1, 1989

Ms. Jean Barnett
Mr. Max Barnett
131 Meadowood
San Antonio, Texas 78216

Dear Ms. Barnett and Mr. Barnett:

Thank you very much for your comments regarding the San Antonio International Airport Part 150 Noise Compatibility Study.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

'89 OCT 30 P1 :53

RECEIVED
AVIATION DEPT.

131 Meadowood
San Antonio, Texas 78216
October 25, 1989

Department of Aviation
9800 Airport Boulevard
San Antonio, Texas 78216

Re: Noise abatement

Dear Sir:

After attending the meeting regarding the Noise Compatibility Study, we urge you to vote for the Noise Compatibility Program.

We feel that safety is of paramount importance and that this proposed program is the best.

We also support the proposed disclosure ordinance.

Sincerely,

Jean Barnett
Max Barnett

Jean Barnett
Max Barnett

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

November 1, 1989

Ms. Maxine Rose
Mr. Bernard S. Rose
239 Beechwood
San Antonio, Texas 78216

Dear Ms. Rose and Mr. Rose:

Thank you very much for your comments regarding the San Antonio International Airport Part 150 Noise Compatibility Study.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

'89 OCT 30 P1 :41

RECEIVED
AVIATION DEPT.

239 Beechwood
San Antonio, Texas 78216
October 27, 1989

Department of Aviation
9800 Airport Boulevard
San Antonio, Texas 78216

Re: Noise Compatibility Program

Dear Sir:

After attending the meeting regarding the Noise Compatibility Study, we urge you to vote for the Noise Compatibility Program.

We feel that safety is the most important issue therefore we have no choice but to vote for this program.

Sincerely,

Maxine Rose
Bernard S. Rose

CITY OF SAN ANTONIO
DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

November 1, 1989

Ms. Sylvia Gonzalez
2510 Danbury
San Antonio, Texas 78217

Dear Ms. Gonzalez:

Thank you very much for your participation in the Part 150 Noise Compatibility Study Public Meeting and Public Hearing.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

November 1, 1989

Mr. Gerardo S. Gonzalez
221 Linda Drive
San Antonio, Texas 78216

Dear Mr. Gonzalez:

Thank you very much for your comments regarding the San Antonio International Airport Part 150 Noise Compatibility Study which you sent to Mr. Labatt.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

'89 OCT 27 P 3 :52
RECEIVED
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October 25, 1989

Mr. Wier Labatt
Councilman, District 9
City Hall
P.O. Box 839966
San Antonio, Tx 78283-3966

Dear Wier,

I want to reiterate my support for the recommedations made by the City's Aviation Department for the Noise Compatibility Program.

There were two items brought up from the floor at the Public Hearing which I hope you will follow up on:

1) If, in fact, San Antonio is getting more than its share of Type 2 aircraft, then landing fee incentives or disincentives can be put in place by the City to encourage airlines to "dump" their noisier aircraft on other markets. The airlines serve San Antonio because it is profitable for them to do so. If a profitable market must be accomodated by serving it with the more quiet aircraft in the fleet, then the airline will find a way of meeting that market's requirements. Let's give the pricing mechanism in the marketplace a chance to work.

2) The City's Airport Noise Abatement Officer must be given the charter and the equipment to (1) monitor noise, (2) to make administrative findings of intolerable aircraft noise levels, and (3) he must have the authority to levy fines based on the level of excessive noise.

If the City has the will to reduce noise, and if the City wants to build goodwill with its citizens, these two additional items should be added to the Noise Compatibility Program.

I appreciate what your doing for our neighborhood and the City.

Sincerely,

Gerardo S. Gonzalez
221 Linda Dr.
Phone 377-7774

LM
NOV 15 1989

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990
(512) 821-3450 FAX: (512) 821-3500

November 7, 1989

Ms. Joyce W. Schmidt
12010 Stoney Pass
San Antonio, Texas 78247

Dear Ms. Schmidt:

Thank you very much for your comments regarding the San Antonio International Airport Part 150 Noise Compatibility Study.

The views and actions of the community are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration for its review.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
Allan A'Hara, TransPlan

12010 Stoney Pass
San Antonio, TX 78247

'89 NOV 6 P2 :
RECEIVED
AVIATION DEPT.

November 4, 1989

Department of aviation
9800 Airport Boulevard
San Antonio, Tx 78216

Dear Sir:

I was present at the October 25, 1989 Public Meeting and Public Hearing of the San Antonio International Airport FAR PART 150 Noise Compatibility Study and I was very disappointed and feel it was a waste of time and money.

I feel that the study should have been on safety as well as noise and should have been fair for all parties involved. It should have mentioned landings as well as take offs and should have included safety and health for all people .

I have lived around airports all of my life and I have lived at the end of both 12L-30R and 3-21 runways and both areas have big problems. I have friends living in the noise exposure LDN area on the maps and they do not see or notice the airplanes. I can not say that where I live.

The squeaking wheel got the grease. That area had more monitors, therefore registered more noise. I will admit that that area has an active association.

On October 22, 1989, while taking my morning walk I noticed a plane that had just taken off on runway 3-21 and veered off to the left and the next plane that was close behind veered off to the right, and then I noticed a plane coming in for a landing which turned and followed the second plane. Planes do not normally veer off course and planes do not circle that low. The plane made a complete circle and went in for a landing on 3-21 runway.

The Stone Ridge area is higher than the airport and therefore the planes are much lower over these houses when planes are landing. Some times they are low enough to count the rivets.

We all know that most accidents happen in the first few minutes of take off or landing, and this is something to take into consideration from the view point of the pilot and passenger as well as the person on the ground.

One thing that I can not understand is how the late night or very early morning planes can come in so quietly and during the other part of the day or night they are so noisy. Some with a very high shrill, deafing noise and others with loud roars and then the swich sound that follows.

I feel that the area north of the airport should have as much consideration as the other areas and I feel that something can

be done before 1993 for the health, welfair and safety of all people involved. I know that if everyone works together we can find the answers, but we must work at and communicate.

Please do not let this become a pigeonholed item with no hope. The $140,000.00 is a lot of money to waste.

Sincerely,

Joyce W. Schmitt

Joyce W. Schmitt

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990

November 17, 1989

Mr. and Mrs. Ralph W. Evans
446 Pike Road
San Antonio, Texas 78209

Dear Mr. and Mrs. Evans:

Thank you for your letter of November 7, 1989 that outlined the aircraft noise you are experiencing at your residence.

The City of San Antonio is in the process of completing a Noise Compatibility Study that should mitigate the noise in your neighborhood to some degree. A draft copy of the complete study and an executive summary are available for public review near your home at the Oakwell Branch Library on Harry Wurzbach Road.

We appreciate your detailed log of aircraft passing over your residence on September 16 and 17, 1989. This data will be added to our complaint analysis as we continue to deal with aircraft noise abatement in the communities around the San Antonio International Airport.

Very truly yours,

Michael J. Hutchins, A.A.E.
Director of Aviation

446 Pike Rd.
San Antonio TX 78209

Nov. 7, 1989

'89 NOV 8 P1 :5.
RECEIVED
AVIATION DEPT.

Department of Aviation
9800 Airport Blvd.
San Antonio, TX 78216

We have lived at 446 Pike Road for 31 years. We feel that our neighborhood has been a victim of circumstance. At 5:00 a.m. Sunday, Nov 5, the noise of a plane woke up our guests (our son and family) and the whole household. We hear planes all day, so loud that windows shake and you cannot talk on the phone. Our son-in-law is a pilot for a Large Airline. We feel that whenever its safe the North-South Runway should be used. Planes go over well past midnight. Enclosed is a list we kept for 2 days. HELP!

Mr & Mrs Ralph H Evans
446 Pike Road
San Antonio, TX 78209
Phone: 512-826-0482

Ralph H Evans Residence
446 Pike Road
San Antonio, TX 78209
Phone: 512-826-0482

Planes that flew over our home Sept 16 and 17, 1989.

9/16/89 At least 10 planes flew over starting at 6:00 a.m. or a little before.

Time	Airline	Amount of Noise
10:30 a.m.	TWA	Not too Loud
10:55 a.m.	American	Loud
10:57 a.m.	Pan Am.	Not too Loud
11:22 a.m.	American	Loud
11:42 a.m.	Delta	Not as Loud
11:44 a.m.	Noisy - Small - Couldn't Identify	
11:50 a.m.	TWA	Not too Loud

Skipped some

2:47 p.m.	Couldn't Identify	Fair amount
Missed some		
3:28 p.m.	United	Fair.
Missed four		
3:55 p.m.	Southwest	Horribly Loud
4:29 p.m.	"	Loud
missed some		
4:45 p.m.	Couldn't Identify	Loud
Missed some		

Cont.		Evans Residence	446 Pike Rd.
1/16/89	Time	Airline	Amount of Noise
	4:50 p.m.	American	Very Loud
	5:05 p.m.	Continental	Loud
	5:10 p.m.	Northwest	Fair
	5:16 p.m.	American	Very Loud
	5:20 p.m.	Northwest	Fair
	7:12 p.m.	Southwest	Fair
		Missed Some	
	9:24 p.m.	Dark – Could Not Identify	Loud
	10:15 p.m.	" " "	"
		Missed Some	
		Sunday – Missed early one	
9/17/89	6:05 a.m.	Could Not Identify	Loud
	6:15 a.m.	United	Fair
	8:05 a.m.	Missed 1	Loud
	8:19 a.m.	United	Fair
	8:25 a.m.	Southwest	Very Loud
	8:32 a.m.	Eastern	Fairly Loud
		Missed 1	Fair
	8:45 a.m.	Continental	Very, Very Loud
	9:05 a.m.	US Air	Fair
		Missed some	Fairly Loud
	1:28 p.m.	Possibly Mexicana	Fair
		Missed some	Fairly Loud
	2:46 p.m.	Delta – Shook Windows – Hurt Ears	Very Loud inside Loud
	2:47 p.m.	" " " "	" "
		Missed 1	
	3:55	Southwest	Fair
		"	"

Cont. on other side

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990

November 17, 1989

Mr. and Mrs. Dennis Mergele
3423 Stoney Country
San Antonio, Texas 78247

Dear Mr. and Mrs. Mergele:

We have received your letter of November 6, 1989, and will include it as part of the official record in the FAR Part 150 Study. It appears you understand the "rotating runway" theory quite well, but it appears we did not explain the noise contour rationale as well as we could have.

The noise contours do not represent your noise level on a specific day when there might be extensive departures or arrivals over your home. It represents the total noise level averaged from one full years data. Since Runway 3/21 is not used at the same rate as Runway 12/30, the contours do not extend as far into your neighborhood as it does into the neighborhoods southeast of the Airport. The Study does not imply that airplanes make less noise when they fly over your neighborhood, it just shows that fewer planes depart in your direction.

During the study, a noise monitoring device was placed just southwest of your neighborhood on Starcrest Road. The readings taken at this site and nine others validated the noise contours presented in the handout you received at the Public Hearing on October 24, 1989. The Study recommends that periodic noise monitoring be conducted around the Airport. Your neighborhood will definitely be considered when those monitoring sites are selected.

Thank you again for your public minded interest in the FAR Part 150 Study. Your letter will be included as part of the Public Record.

Very truly yours,

Michael J. Kutchins, A.A.E.
Director of Aviation

"AN EQUAL OPPORTUNITY EMPLOYER"

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
SAN ANTONIO, TEXAS 78216-9990

November 17, 1989

Mrs. Sarah S. Reese
1919 Oakwell Farms Parkway, Suite 120
San Antonio, Texas 78218

Dear Mrs. Reese:

Thank you for your letter of November 7, 1989, that outlined the aircraft noise you are experiencing at your office and home.

The City of San Antonio is in the process of completing a Noise Compatibility Study that should mitigate the noise in your neighborhood to some degree. A draft copy of the complete study and an executive summary are available for public review near your office at the Oakwell Branch Library on Harry Wurzbach Road.

When this plan is approved by the Federal Aviation Administration, the San Antonio area will be eligible for federal funding to assist in mitigating the noise problem in your neighborhood. Thank you again for your interest and concern.

Very truly yours,

Michael J. Kutchins, A.A.E.
Director of Aviation

Sarah Slocum Reese, M.A.
1919 Oakwell Farms Pkwy, Suite 120
San Antonio, Texas 78218
512 / 824-9919

'89 NOV 13 P 2 :2
RECEIVED
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Nov. 7, 1989

To whom it may concern,

This is a formal complaint against the air traffic and noise pollution in the area of Harry Wurzbach and N.E. Loop 410.

My office and home are in this area and the noise from the air traffic is so loud that at times one can't even hear what another person is saying. This is also true when conversing over the phone.

When out-of-doors it is as if the airplane is going to land on my property the noise is so horrific.

Please attend to this incredible noise situation. There are other answers and I would like to retain my hearing by the time I reach old age.

Thank you for your attention to this matter.

Truly yours,

Sarah S. Reese

'89 NOV 8 P2:1
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AVIATION DEPT.

OAK PARK - NORTHWOOD NEIGHBORHOOD ASSOCIATION

COMMENTS ON FAR PART 150 NOISE STUDY NOVEMBER 10, 1989

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. O. BOX 17093

SAN ANTONIO, TEXAS 78217

NOV 10 1989

TO: San Antonio Department of Aviation
9800 Airport Boulevard
San Antonio, Texas 78216

Mayor Lila Cockrell and Members of the San Antonio City Council
City Hall
P. O. Box 839966
San Antonio, Texas 78283

Mr. William T. Donahue
Assistant City Manager
City Hall
P. O. Box 839966
San Antonio, Texas 78283

Mr. Richard B. Hatch
Chairman, Airport Advisory Committee
9800 Airport Boulevard
San Antonio, Texas 78216

Mr. Don Harris
U.S. Department of Transportation - FAA - SW Region
Fort Worth, Texas 76193

SUBJECT: Written Comments by the Oak Park-Northwood Neighborhood Association in accordance with Section 150.21(b) of Federal Aviation Regulation Part 150 Airport Noise Compatibility Planning Revised January 18, 1985, or Superseding Document

The attached written views, data, and comments concerning the correctness and adequacy of the Draft Noise Exposure Map and descriptions of forecast aircraft operations prepared by TransPlan dated October 5, 1989, are submitted in accordance with the notice appearing in the SAN ANTONIO EXPRESS-NEWS of October 23, 1989. These written comments are submitted in addition to the public comments made by our association at the Public Hearing held on October 24, 1989.

Sincerely,

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

Philip H. Fryberger

Philip H. Fryberger
Chairman

PHF:eaf

Attachment: A/S

WRITTEN COMMENTS BY OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION
IN ACCORDANCE WITH SECTION 150.21(b), FAR PART 150

These comments are submitted in two parts. The first part is a general comment about the overall tone and thrust of the Draft Study. The second and more lengthy part will be our comments referenced to specific pages and paragraphs in the Draft Study.

The most obvious shortcoming in the Draft Study, from our viewpoint, is the failure to address the issue of balance when seeking alternative solutions to the airport noise problem in San Antonio. We refer to FAA Advisory Circular 150/5020-1, the basic document for conducting airport noise control and compatibility planning. In the very first paragraph entitled "Purpose," it clearly states that there are two "goals of reducing existing noncompatible land uses around airports and of preventing the introduction of additional noncompatible land uses." It further states in the second paragraph, "The goal of the overall program is . . . to develop a balanced . . . program to minimize and/or mitigate . . . airport noise . . . ." Furthermore, we refer to Section 150.23(e)(5) which states in part "the actual or anticipated effect of the program on reducing noise exposure to individuals and noncompatible land uses and preventing the introduction of additional noncompatible land uses within the area covered by the noise exposure map. The effects must be based on expressed assumption . . . ." Considering these expressed statements within the FAA documents concerning efforts to reduce and prevent airport noise, we note that of the twin goals, cited in these documents, reduction of airport noise is preeminent over the prevention of airport noise. We strongly believe that the Study glaringly fails to address the twin goals of airport noise compatibility planning and focuses instead merely on the secondary objective. By arbitrarily and capriciously rejecting any strategy which is oriented to dispersing or balancing noise impact, the Study is biased towards the prevention of airport noise over the primary consideration of reducing airport noise. Our neighborhood is the only neighborhood in San Antonio which is included within the current Ldn 75 noise contour. We strongly believe that reduced exposure to individuals and land currently under the Ldn 75 noise contour should be considered with any slight increase to those exposed to Ldn 65 in order to achieve a balanced program as mandated by Congress and as described in the guiding documents issued by the FAA.

We now turn to detailed views, data, and comments which will be referenced to the page numbers in the FAR Part 150 Draft Study prepared by TransPlan and dated October 5, 1989.

PAGE 10, 4TH PARAGRAPH: The Study alleges that the location of Randolph and Kelly Air Force Bases limits the flexibility for altering existing procedures. The only data submitted to substantiate this assertion were some flight tracks of selected departures. There was no data submitted to indicate the frequency of these flight departures or whether or not there were "windows" in the flight operations such as weekends and early morning departures whereby civilian flights departing San Antonio International Airport would have little or no effect on the military operations at Randolph or Kelly Air Force Bases. Furthermore, there was no analysis indicating when these flight tracks were established or any indication of specific objections by the U.S. Air Force to other alternatives involving runway rotation or variation of flight paths. We also note in a G.A.O

report entitled "Aircraft Noise" submitted to Congress in August 1988 that the FAA is currently negotiating new routes and procedures in the Los Angeles area which "will include redefining air space . . . and establishing new routes . . . through military air space." It seems to us that the negotiation of air space requirements between military and civilian users is an on-going and widespread practice and should be considered here. This airport is not the same airport it was 20 years ago, 10 years ago, or even 5 years ago. We need to keep pace with change and should not rule out an alternative merely because it is more convenient to keep the status quo.

PAGES 12 AND 13: There appears to be a discrepancy between the figures in Table 1-2, which shows 73,582 air carrier operations in 1987, and Table 1-3, which shows 70,500 actual aircraft operations by air carriers in 1987. We don't know which one to believe.

PAGE 14, SECTION 2-1.1: We note the City plan to upgrade airport highway access by adding ramps to form a three-level interchange at U.S. 281 North and Loop 410. We also are aware of a $9.5 million project to reconstruct the secondary runway (03-21) later this year. We are puzzled by the need to reconstruct a runway that is only used 8% of the time. Furthermore, in light of the proposed three-level interchange, we would expect that the increased height caused by highway construction could further restrict use of that runway. It is inconceivable to us that the FAA and the City of San Antonio would not consider extending the length of that runway (which has been recommended by previous studies at least since 1968) so that the use of displaced threshholds could be considered for the secondary runway. By extending the runway and using displaced threshholds for takeoffs and landings, the noise impact would be greatly reduced.

PAGE 24, "FAR PART 150 NEM - LAND USE:" We do not believe that the document submitted by TransPlan focused sufficiently on the options available to mitigate airport noise by altering departure routes slightly and varying these routes to provide more equitable distribution of noise. For instance, by looking at the Noise Exposure Maps contained in the Study, particularly those that portray the various land uses in color, it is apparent that there is a flight path variation that could be taken for departures on Runway 21. A slight left turn executed at a safe altitude after takeoff could route the aircraft over undeveloped land, open space and land zoned for industrial and services use, adjacent to U.S. Route 281 (McAllister Freeway) thereby avoiding direct flights over residential areas. Similarly, it would be possible for departures from Runway 03 to route departing aircraft over open space, undeveloped land, and industrial zoning east of Wetmore Road. In passing, we note that Runway 12 Right is incorrectly identified as Runway 12 Left on both the 1987 and 1993 Noise Exposure Maps which portray land uses. Other cities have used random routesfor departing and arriving aircraft to disperse aircraft noise over a wider area. While this may increase the number of people subjected to lower levels of noise, it would give great relief to those who are suffering from the clearly unacceptable noise (Ldn 75 and higher) for 92% of the time. By allowing more flexibility within these departure and arrival profiles, Controllers can direct the flights along more varied paths, without jeopardizing safety, instead of over the same narrow strip of geography time after time.

PAGE 27, SECTION 2-6: When considering noise sensitive sites to develop the Noise Exposure Maps, the Study included schools, hospitals and health care facilities (nursing homes) as noise sensitive public buildings. Appendix 1 of

FAA Advisory Circular 150/5020-1 dated August 5, 1983, includes churches, auditoriums and cultural activities as land uses of public buildings which are noise sensitive. We do understand why these types of public buildings were not considered in the Study.

PAGE 35, SECTION 3-3.1: It is noted in the Study that "As with any computer model, the input data largely determines the results." We agree. Therefore, we are curious as to why the input to the FAA Integrated Noise Model (INM) failed to include data on wind velocity and direction. We are curious about this because the subject of wind velocity and wind direction repeatedly arises when we complain to the local Air Traffic Controller about direction of takeoffs, which in many cases are not into the prevailing wind. The local Air Traffic Controllers have told many of our citizens that we are denied relief because it is necessary for airplanes to take off and land into the prevailing wind. We have been told repeatedly when we register complaints about excessive noise that the prevailing winds are the reason for having to use the primary runway. We can only assume that the data on wind velocity and wind direction was not entered into the computer model because it was irrelevant. If so, this confirms what we learned back in 1986 when the secondary or crosswind runway was used 100% of the time for over 6 months. It also seems to us that any issue of safety arising from the use of the crosswind runway is negated by the fact that the runway was used for 6 months without any incident or accident. If the issue of safety now arises, it appears that both the FAA and the City are indicating tacitly that airport operations were unsafe during that six month period, especially in view of the fact that those operations were conducted during the heat of the summer from a runway that is 1,000 feet shorter than the primary runway.

PAGE 36, SECTION 3-3.5: The statement is made that " . . . Runway 12R at San Antonio International is preferred from a safety and air traffic control standpoint." We can understand this preference. We are not aware of any data or analysis in this report which substantiates any safety problem caused by operating off of either the primary or secondary runway at San Antonio. The preference from an Air Traffic Control standpoint must be balanced by the preference of the community for quiet enjoyment and use of their property. This statement of mere preference from an Air Traffic Control standpoint borders on arrogance and head-in-the-sand attitude towards resolving a significant City problem.

PAGE 37, SECTION 3-3.7: The TransPlan Study asserts that Stage 2 aircraft constitute approximately 69% of the total U.S. domestic airline fleet and that in San Antonio Stage 2 aircraft currently constitute 78% of the air carrier fleet. The 69% figure is an error. Reference is made to FAA Report to Congress entitled "Status of the U.S. Stage 2 Commercial Aircraft Fleet" dated August 1989, Page II-6, Paragraph C, which states, "As of January 1, 1989, approximately 60% of the U.S. airline fleet is Stage 2." Furthermore, it states on Page II-9 that "Although the number of Stage 3 airplanes as a percentage of the total fleet have increased substantially from 15.3% to 40% over the period, in absolute terms, the total U.S. Stage 2 fleet has actually increased by approximately 300 aircraft." We think that the assertion on Page 37 of the TransPlan Study that "San Antonio has a slightly higher proportion of older aircraft . . ." is a fuzzy interpretation of the facts. We think that the fact that the national percent of Stage 3 aircraft is at least 18% higher than the percent in San Antonio indicates a great gap in the proportion of older aircraft routed through San Antonio rather than a "slightly higher proportion." Furthermore, the fact that San Antonio has stagnated at 78% Stage 2 aircraft for the past three years while the rest of the nation has maintained an annual influx of 3% per year of Stage 3 aircraft, thereby reducing the national percentage of Stage 2 aircraft to approximately 57% today,

indicates to us that there has been unawareness of a growing and serious problem and inattention by the City and the FAA Southwest Region to a trend that has been widely recognized by other cities and by the FAA in its Report to Congress. San Antonio must play catch-up to close an ever-widening gap which threatens to inundate the City with a much larger proportion of noisy aircraft than other more vigilant cities.

The assertion is made that "Current demand favors the use of smaller, narrow body aircraft which are primarily Stage 2 aircraft" (for San Antonio). This is one of the amazing assertions in the TransPlan Study. No facts or qualitative analysis were submitted to document this assertion. We disagree with the assertion for the following reasons. In our opinion, average airline passengers who pass through the gate and board an aircraft haven't the foggiest idea whether they are boarding a Stage 2, Stage 3 or Stage X aircraft. All that the passenger knows generally is that the airplane is going where he wants to go. It is inconceivable to us that passenger demand for the noisier Stage 2 airplanes is the reason that San Antonio currently enjoys a 78% mix of the noisy aircraft as opposed to 22% of the quieter Stage 3 aircraft. This compares to less than 60% of the Stage 2 and slightly over 40% Stage 3 aircraft now in the national commercial airline fleet. It is our firm opinion that those embarking on a flight from San Antonio International Airport, given the information and given a choice, would cheerfully demand newer, quieter Stage 3 aircraft rather than the older noisier Stage 2 models. The reason is simple. Stage 3 aircraft are quieter because they are the newer models which have been designed to meet noise abatement objectives. Because they are newer, the Stage 3 aircraft (such as the MD-80, the Boeing 737's [300, 400 & 500 Series] Boeing 757's and Boeing 767's) are potentially safer than older aircraft which have accumulated more takeoffs, more landings, more flight hours and have been exposed to corrosion longer. We believe that it is not passenger demand that causes Stage 2 aircraft to be here in such large numbers. We think it is instead an airline decision fostered by the City's failure to establish what the FAA calls a "local option Stage 2 operating ban."

The FAA has stated in a recent report: "Currently one of the most effective incentives for air carriers and other operators of large turbo airplanes to use more Stage 3 aircraft is provided by certain local airports, not the Federal government." This incentive is the increasing use of local limitations on noisy aircraft, particularly during nighttime hours." In our opinion and in the opinion of the FAA, other cities who have banned Stage 2 operations or restricted their use in some way have effectively helped themselves to solve their noise problem. Because others have done so and San Antonio has not, airlines continue to move Stage 2 aircraft through this city.

The TransPlan Study goes on to assert that this is expected to change because Stage 2 aircraft will be replaced by Stage 3 aircraft. The Report to Congress previously referenced clearly shows that Stage 3 replacements for Stage 2 aircraft are not as optimistic as previously forecast by the FAA. Reference Figure 2-4 of the FAA August 1989 Report. This figure clearly shows that there are approximately 350 more Stage 2 aircraft now in the commercial airline fleet than there were supposed to be when the FAA made their forecast three years ago. Therefore, we think TransPlan's choice of words that the composition of the fleet will "change substantially" (implying an improved ratio of Stage 3 to Stage 2 aircraft) is misleading. There is no doubt in our minds that San Antonio is far behind the rest of the nation as far as the influx of quieter Stage 3 aircraft into San Antonio International Airport. If the current trends at the national level and the San Antonio local level persist, there will be an ever-widening gap with San Antonio assuming the burden of increased numbers of Stage 2 aircraft because other cities have either restricted operation of Stage 2 aircraft or provided other incentives to the airlines to route Stage 3 aircraft into their airports.

PAGE 38, TABLE 3-1: This table shows that the departure traffic flow from San Antonio is 81% to the north and east. This surely suggests that there may be some economic benefits for the airlines to use a runway oriented in those directions.

PAGE 41, SECTION 3-4: This section describes the 1987 noise contours. It asserts that "The areas to the southwest and the northwest are considerably smaller . . . ." Look at the map! It is obvious that the only area that is considerably smaller is the southwest - NOT THE NORTHWEST. We fail to understand why TransPlan includes the northwest quadrant in this sentence.

PAGE 43, SECTION 3-5: "PROJECTED 1993 NOISE EXPOSURE" TransPlan's forecast of the projected 1993 noise exposure is very conflicting and confusing beginning with this page. They say "Recent industry data indicates that the Stage 2 proportion is declining at the rate of approximately 6% per year." FAA data submitted to Congress in August 1989 refutes this assertion. TransPlan further states "Since there are no Stage 2 aircraft currently being manufactured, all the assumed additional traffic is by Stage 3 aircraft types." This is an absurd assumption. The last Stage 2 aircraft was produced in June 1988. FAA data and assumptions of useful life for a commercial airliner range anywhere from 25 years to 35 years, or perhaps longer, which means that Stage 2 aircraft will be with us for a long, long time. In addition, there are approximately 2400 Stage 2 aircraft in the European community. There exists the possibility that because of different viewpoints on how to judge the age of a commercial airliner (between the United States and the European community airline regulators), many of these European Stage 2 aircraft may eventually wind up in the U.S. commercial fleet. We further note that the projected 1993 noise exposure was the five year forecast when the Study was initiated by TransPlan in 1988, however, now that we have reached this point in the approval and acceptance process for the Study, there are only three years remaining in the forecast timeframe. The assumption that all additional traffic would be by Stage 3 aircraft seems to us to be a specious assumption with no historical data to support it. Considering the compression in forecast timeframes caused by continuing passage of years as the "Study" process drones on, we doubt that Stage 3 relief forecast by the Study will materialize without strong incentives to do so. Original Study forecast year was 1992.

PAGE 46, SECTION 3-6: This section purports to describe historical noise impacts since 1978. In our opinion, the only purpose it serves is to foster the faulty basic premise that the total noise impact will remain largely unchanged because of the trend toward quieter aircraft offsetting traffic growth. We are not aware of any historical data to support this assertion. The quieter aircraft have not been coming to San Antonio anywhere near the same rate as they have been introduced into the national commercial fleet.

PAGE 49, SECTION 3-7.1: This purports to be the future noise contour forecast for the year 2007 and assumed a fleet consisting of entirely Stage 3 aircraft. This is inconsistent with FAA data submitted to Congress in August of 1989 which indicates that 100% Stage 3 aircraft is not anticipated before the year 2010.

PAGE 56, SECTION 4-3.1: When considering Off Airport Noise Impact and compatible or incompatible land uses, we believe that the TransPlan Study is glaringly defective in that it failed to consider the twin goals of airport noise compatibility planning. We refer again to Paragraph 1, "Purpose," of FAA Advisory Circular AC 150/5020-1 dated August 5, 1983, which says, "Airport noise compatibility planning has the goals of reducing existing noncompatible land uses around

airports and of preventing the introduction of additional noncompatible land uses through the cooperative efforts of all those involved." We note again that Congressional intent is to achieve a balance between these twin goals - not to have one subordinate to the other.

PAGE 63, SECTION 4-6: The Noise Sensitive Sites listed within existing Ldn noise contours, all of which are public buildings, fail to include churches and auditoriums which exist in current and future noise contours. This is inconsistent with the public buildings to be included as prescribed by FAR Part 150.

PAGE 68, CHAPTER 5: Chapter 5 purports to be an analysis of noise abatement and mitigation measures. Section 5-1 starts out by saying, "The authority and responsibility for evaluating noise abatement and mitigation measures to minimize the number of persons adversely affected . . . ." This sentence seems to be in conflict with the last sentence on Page 68 which says, "This effort involves the reduction of existing land use conflicts, either by aircraft noise abatement or by changes to the land use itself, and the prevention of new or future incompatible land uses." This chapter does not provide either qualitative or quantitative analyses to support the conclusions reached later in the report. The conflict between these two sentences on Page 68 seems to us to indicate the bias in the Study, which seeks to "minimize the number of persons adversely affected" by noise rather than trying to seek the balance between the reduction of existing land use conflicts and the prevention of new ones. Chapter 5, rather than providing substantive analyses to defend the Study's conclusions, merely describes the noise abatement and mitigation measures which have been suggested, but does not examine them in any detail which would justify their rejection for specific application at San Antonio.

Page 71, SECTION 5-3: The bias shown in this Study is clearly indicated by the second question in this section. "Does the alternative reduce the number of people exposed to high levels of aircraft noise?" The question does not define what high levels are, and the way the question is phrased determines the bias of the Study. We think it is the wrong question. We think the question should have been, "Does the alternative balance the reduction of noise with the prevention of noise," because these are the expressed twin goals of airport noise compatibility planning.

PAGE 73, PARAGRAPH ENTITLED "EXTENSION OF RUNWAY 03-21 (INCREASED UTILIZATION):" Discussion of increased utilization and extension of the secondary or crosswind runway, that is, Runway 03-21, is an interesting subject. TransPlan reported that Runway 03-21 was used 8% of the time in their briefing report of May 31, 1988. They recommended at that time to increase total air carrier and commuter activity from 8% to 20%. For reasons unknown to us, in their Committee Briefing of September 28, 1988, they asserted that several noise abatement alternatives were studied from a technological basis as well as an economical and political basis and ". . . found to have no positive effect in abating or mitigating noise at San Antonio International Airport." This alternative was one of those summarily eliminated at that point. A brief look at some of the history relative to the use of this runway suggests that there may be other reasons for not using it more. For instance, effective January 1, 1985, the FAA Manager at the San Antonio Tower put out a letter to airmen on the subject of noise abatement. In it it was stated that Runway 03 is our most sensitive runway for arriving aircraft. We find this statement amazing and absurd when one considers that 92% of the traffic was on the other runway. Even a cursory look at noise exposure maps dating as far back as 1974 shows that that runway and the southwest quadrant are subjected to the least noise from the airport. We, therefore,

question the judgment and the motive for such a statement. The letter further states that, "The failure of such an informal (noise abatement) program may, through necessity, lead to a much more restrictive formal type program." We note the reluctance of the local FAA Manager to put into effect the implied threat expressed in this letter, namely, if the noise problem persists, a more restrictive formal type program might be instituted. This failure to act is illuminated by the fact that nearly five years have elapsed since the letter was written, and increased awareness and sensitivity to the noise problem has been forthcoming since at least mid-1986, yet no "formal type program" ensued.

In mid-1986, increased utilization of Runway 03-21 occurred by necessity. Between March 1986 and the end of October 1986, that runway was used exclusively for takeoffs and landings despite the fact that the period included mid-summer temperatures and the fact that the runway is 1,000 feet shorter than the primary runway. This increased utilization was because the primary runway was closed during that period for reconstruction. To our knowledge, no safety issues arose during that timeframe, there were no reported incidents or accidents attributable to the use of the secondary runway, traffic flow throughout the area continued without any apparent problems, and no economic burden by the airlines or the City has been substantiated by a qualitative or quantitative analysis of the operations during that timeframe. If they have, such information has been denied us, for we have been seeking such information under both the Freedom of Information Act and the Texas Open Records Act and have been denied access to what surely is public information. The TransPlan Study, by arbitrarily eliminating an alternative such as this, appears to veer from the twin goals of noise reduction and noise prevention and merely focuses on noise prevention. This lack of directional balance which persists throughout the Study seriously flaws it and sheds some doubt on its credibility. On May 24, 1989, City Manager Lou Fox, in an address to the North San Antonio Chamber of Commerce, unveiled plans to reconstruct the airport's secondary runway with funds to be provided by an FAA grant and City airport revenue bonds. The project is estimated at $9.5 million to reconstruct a runway which is used less than 10% of the time. In light of both the TransPlan Study and its predecessor, the Cress Study, and studies going back as far as the Bovay Study in 1968, all of which examined and recommended extension of this runway, we believe that it is now time that the City and the FAA accept the advice of the experts they have hired and expand the scope of this $9.5 million project to include extension of the runway now, rather than finally again coming to the very same conclusion years from now.

PAGE 75, PARAGRAPH ENTITLED "LIMITATIONS ON TYPES OF OPERATIONS OR TYPES OF AIRCRAFT:"
The Study asserts that any limitations of this type ". . . would be contrary to established city policy and have been eliminated from further study." Nowhere is the policy of the City defined. However, it is also asserted on this page that, "The end result of such action is likely to be a reduction in the level of service to San Antonio." While it may be "likely," no quantitative or qualitative data is offered to support this "likely" assumption. Furthermore, the City of San Antonio is already on record with a Resolution, Number 87-58-89 dated December 10, 1987, which encourages the rapid transition to Stage 3 aircraft. It seems to us that the next logical step for the City to take is to place limitations or restrictions on operations or types of aircraft to foster their stated goal. If San Antonio feels that the end result of such actions is likely to reduce the level of service in San Antonio, we believe that such timidity is unfounded. The airlines serve San Antonio because it is profitable for them to do so. If a profitable market must be accommodated by serving it with more Stage 3 aircraft, then the airline will find a way to meet that market's requirement. Let's give the pricing mechanism in the marketplace a chance to work. The argument is advanced that if the City

restricts the use of Stage 2 aircraft, it will jeopardize economic development in San Antonio. We recognize that San Antonio is a unique city. However, its uniqueness does not extend to being the only city seeking economic development as a goal. That particular goal does not exclude the additional goal of inducing airlines to route more of their quieter aircraft through San Antonio. Over 49 airports in the United States have enacted local noise laws. At least 16 cities have enacted use restrictions based on noise levels, and these include such cities as Burbank, California; Minneapolis; Milwaukee; Chicago; San Diego; and Santa Ana, California, all of whom can be presumed to be seeking economic development as strenuously as San Antonio does. Nevertheless, each of these cities has also recognized the local government responsibility to safeguard the health, welfare and property values of their citizenry by restricting the operation of aircraft which cause excessive noise.

If our local government continues to deny the fact that other cities, who have exercised local options to restrict the use of noisy aircraft, are causing San Antonio to absorb more than our fair share of the nation's noisy aircraft - the airlines will continue to dump Stage 2 traffic on us. Other cities have provided the proper incentive to airlines - and so can we!

PAGE 76, PARAGRAPH ENTITLED "LANDING FEES BASED ON AIRCRAFT TYPE AND TIME OF DAY:" The Study states, "The current agreement with the airline operators at San Antonio International Airport does not allow for any type of surcharge." It seems to us that the very nature of a contract is that it will expire at some time. When it is time to renegotiate the contract, the City has unilateral authority to determine any fees charged for the use of its airport.

PAGE 77, PARAGRAPH ENTITLED "GREATER PERCENT OF STAGE 3 AIRCRAFT:" The Study states "The 1993 Baseline Case assumed a 43% use of Stage 3 aircraft at the airport." This sentence is confusing because, first of all, it conflicts with the statement on Page 86, Paragraph VII, which states, "The Baseline Case assumed that San Antonio would parallel the national trend which projected an increase from 22% Stage 3 aircraft in 1988 to 43% Stage 3 aircraft in 1993." Secondly, the statement on Page 77 conflicts with the statement on Page 107 that "Basecase 1993 (Figure 6-3): This map represents the projected noise exposure of existing conditions in the year 1993, assuming a normal growth in airport actual activity but no changes in the runways, or aircraft mix." If we assume 43% (Page 77), San Antonio will have to more than double the national trend of annual percentage increases in Stage 3 aircraft to reach 43% in 1993. If the assumption on Page 86 is used that San Antonio would parallel the national trend, which the FAA Report to Congress, August 1989, shows to be 3% per year, San Antonio will only achieve 32% - NOT 43% - by 1993. If the assumption on Page 107 is used, San Antonio will maintain the 22% Stage 3 aircraft that it has enjoyed since 1987.

PAGE 77, PARAGRAPH ENTITLED "COMPREHENSIVE LAND USE PLANNING AND ZONING:" We do not denigrate the recommendation to employ comprehensive land use planning and zoning to help resolve the airport noise problem. We merely wish to note that such a tool is only practical for vacant properties and those areas around the airport that have not yet been fully developed. Land use control is, after all, a tool to prevent an aircraft noise problem in largely undeveloped areas. Such controls are worse than useless for solving noise problems in established, developed neighborhoods.

PAGE 78, PARAGRAPH ENTITLED "DISCLOSURE ORDINANCES:" This recommendation is hard to belittle because it deals with an ethical problem, namely truth. We question its value because it seems to us that a disclosure ordinance will have no affect

unless the community enforces it. The community of realtors in this city surely must recognize the legal and moral obligations that they have to reveal a latent defect, such as clearly unacceptable airport noise, to a prospective buyer. Therefore, this recommendation adds words to the Study but provides little real substance. If community integrity does not already exist, another unenforceable City ordinance won't create it.

PAGE 79, PARAGRAPH ENTITLED "PURCHASE ASSURANCE PROGRAM:" This particular recommendation has received a lot of attention from TV and newspaper reporters. We believe, first of all, that the estimated total cost for acquisition within the Ldn 75 contour of approximately 960 dwelling units for $1.4 billion shows the scope of anticipated costs for such a program. It seems to us that the most reasonable and practical way to attack any problem is to seek the least costly solutions first. We remain steadfast in our opinion that use of other available noise control strategies involving merely procedural changes, policy changes or operational changes will be less costly in the long run than a purchase assurance program which currently has no funds to underwrite it. There is no likelihood of receiving such funds in these days of economic stress both locally and nationally.

PAGE 80, PARAGRAPH ON THRUST REDUCTION: The Study recommends that, in addition to the air carriers, corporate aircraft and general aviation should use standard thrust reduction. We are curious as to who will enforce these procedures not only for general aviation and corporate aircraft, but for the air carriers as well. We would hope that this responsibility with the authority to make administrative determinations of excessive noise along with the authority to penalize violators by fining them be given to the Noise Abatement Officer at San Antonio Airport.

PAGE 80, SECTION 5-1.2: Assertions are made that any flight pattern changes or changes in runway configuration would create airspace conflicts with Kelly Air Force Base and Randolph Air Force Base. This alternative was eliminated from further consideration without any qualitative or quantitative analyses or data to substantiate what those airspace conflicts are and if such conflicts were identified, what could be done to resolve the conflict. The same can be said for all of the assertions on Page 81.

PAGE 82, PARAGRAPH ENTITLED "PILOT ADVISORY PROGRAM:" The Study recommends that the airport should publish a notice of the City's Noise Abatement Program and distribute it to all airport users. What the Study fails to recommend and what should be included as part of this recommendation is that the recipients of the City's notice should respond to that notice and inform the City what they are doing to assist in noise abatement.

PAGE 83, SECTION 5-4, ENTITLED "ANALYSIS OF ALTERNATIVES REQUIRING INM USAGE:" This entire section is incomplete. Rather than being an analysis of alternatives, it merely describes them. In fact, Section 5-4.1, which purports to be "the analysis," is specifically labeled "Description of Alternatives." The lack of substantive quantitative and qualitative analyses in conjunction with conflicting and dubious assumptions seriously taints the conclusions reached and recommendations made.

PAGE 86, PARAGRAPH V1, ENTITLED "INCREASE USE OF 3-21:" The Study asserts this alternative introduces substantial noise impacts to previously unimpacted areas and can be justified only if it would result in a net decrease in number of persons impacted." This assertion is in noncompliance with the stated purpose of the FAR Part 150 Program. According to that purpose, approval of a noise control alternative is justifiable when it meets both of the twin goals of reducing existing non-compatible land uses around airports and of preventing the introduction of additional noncompatible land uses through the cooperative efforts of all those involved. In other words, the Study completely ignores one-half of the objectives

set for an effective noise abatement strategy by inserting the word "only" in this paragraph. We do not understand this express bias which opposes the FAA's stated purpose for FAR Part 150 studies.

PAGE 86, PARAGRAPH VII: As previously stated, this paragraph conflicts with the one on Page 77 and the one on Page 107 which make different assumptions about projected increases of Stage 3 aircraft in 1993.

PAGE 98, LAST SENTENCE: The Study states, "Based on the above evaluation a basis for selecting the most effective combination of noise abatement measures and subsequent measures to further mitigate noise impacts within the surrounding communities was determined." Because of the confusing and conflicting assumptions appearing on Pages 77, 86 and 107 of the Study, and the lack of substantive, qualitative and quantitative analyses, the evaluations and conclusions reached as to what constitutes the most effective combination of noise abatement measures are seriously tainted. Since the conclusions are tainted by the flow of reasoning stemming from conflicting assumptions, the recommendations are also questionable.

PAGE 103, CHAPTER 6, ENTITLED "NOISE COMPATIBILITY PROGRAM:" We are concerned about the words "program" and "plan" used in Chapter 6 of the Study. The opening sentence of Section 6-1.1 of this chapter states, "The purpose of this program is to present the plan by which the City of San Antonio proposes to mitigate or abate to the maximum extent reasonable the noise impact of aircraft operating at San Antonio International Airport." We are concerned about the subtle distinction between the words "program" and "plan" used in this sentence. The "plan" first appears in this sentence in lower case letters. Three paragraphs later the "Plan" gets capitalized and the report notes that it will now require additional studies and funding over the next five years. The Plan remains capitalized during the remainder of the discussion in Chapter 6.

To our way of thinking, a Plan is made and is subject to change. To us, a Program means an approved Plan with resources allocated to convert that Plan into a Program. We think the time spent on "Plans" has already been excessive, going on at least six years to our knowledge, and we think that we are now talking about a Program - not a Plan.

In May of 1987, a Request for Proposal by the City was circulated to update an airport Noise Compatibility Plan based on 1983 statistics. The TransPlan Study begun in 1987 and continuing through the Public Hearing has resulted in a recommended Noise Compatibility Program which we are commenting on . If this so-called Program merely leads to another Plan and additional studies as is stated by TransPlan in Chapter 6, what have we accomplished since 1983? We are back to more studies! In the Minutes of the Community Advisory Committee meeting held on August 15, 1989, Mr. A'Hara of TransPlan correctly stated that responsibility for enacting a Noise Abatement Program rests with the City of San Antonio through its Department of Aviation. We find it inconceivable after expending a half a million dollars on studies spanning more than five years that all we have obtained for our taxpayer dollars is a "program" that presents a "plan" which requires more study and more funding. We believe from all that has gone before that we are commenting on a Noise Compatibility Program that is to be accepted and approved by the City Council and which will be put into place after the FAA reviews it. We believe that FAA pro forma approval should be immediately forthcoming since their representatives have been closely monitoring this entire process for many years, and especially since 1987. We are disturbed by the cavalier use of the word "plan," if in fact we mean "program." We are under the impression and belief that this is to be an action "program," not just another "plan" for the shelf.

PAGE 104, SECTION 6-1.4: This section effectively emasculates the recommendations for purchase assurance and accoustical treatment programs. It is a disclaimer which provides exculpatory remarks to the effect that these programs assume a relatively steady flow of federal grant money over the next ten years. It further states that it is impossible to predict how successful the airport will be in obtaining these grants. To our minds, this reduces the recommendations to mere rhetoric.

PAGE 106, SECTION 6-1.7: This section is an additional disclaimer regarding the potential sources of funding for costs of land acquisition, development rights acquisition, avigation easement acquisition and accoustical treatment. It cites the general impossibility to estimate amounts of funding which actually will be received due to national funding uncertainties and other cities' airport competition for funds administered by the FAA. Because San Antonio is a Johnny-Come-Lately to the noise abatement arena, it seems highly likely that San Antonio will take it's place at the end of the line for receiving funds from the federal trough. This section also states that the City would be a second potential source of funds. Since the FAA would provide up to 80% participation, the remaining 20% of the eligible costs would be left to the City. In view of the current budget crises locally, it seems a rather remote possibility that San Antonio would or could provide funds for these stated purposes and, therefore, the recommendations dealing with these alternatives are also mere rhetoric.

PAGE 107, SECTION 6-2.1: The assumption made about Base Case 1993 (Figure 6-3) conflicts with the assumptions made on Pages 86 and 77 as previously stated.

PAGE 112, TABLE 6-1: The Total Costs shown on this table are completely meaningless since there is no financial analysis or budget proposal to support the figures given. The Total Costs appear to be nothing but a vague estimate based on receiving doubtful amounts of funds from very unpredictable sources over a five year period.

PAGE 113, ELEMENT NO. 1 - "ESTABLISHED POSITION OF NOISE ABATEMENT OFFICER" - Our first comment is on the financing. We note that the range of annual salary for this position is $28,932.00 to $41,952.00 - not the $25,000.00 to $35,000.00 range listed in the Study. Therefore, the cost of this position could escalate above that estimated by TransPlan. The most disturbing thing about this recommendation and its implementation, however, is that the Job Description for the Noise Abatement Officer clearly states, "The employee will be primarily responsible for public relations activities . . . ."

On June 1st of this year, the SAN ANTONIO LIGHT quoted the Airport Public Relations Director as stating that the City of San Antonio recognizes the problem with noise levels in neighborhoods surrounding the airport. She also said, "If we're going to be a responsible airport we want to conduct this study before the problem gets so bad the government makes us do it." We were encouraged by those public statements of problem recognition and a desire to be good neighbors.

On August 24, 1989, the SAN ANTONIO LIGHT announced that an Airport Noise Abatement Officer had been hired on June 19, 1989, to "execute the noise abatement program." Our concerns stem from the fact that the Job Description for the Noise Abatement Officer appears to duplicate that of the airport Public Relations Director to the extent that he is "primarily responsible for public relations activities" with various organizations and entities. It seems to us that the emphasis here is on public relations rather than action to correct a problem that has been recognized by the City. We don't need additional public relations personnel to tell us what cannot be done - and why. What we need is an action oriented individual with a "can do" attitude to bring us some relief from the noise. The Noise Abatement

Officer admittedly has a tough job to accomplish. Our hope is that he has the authority commensurate with his responsibility to get the job done. We don't need to reinvent the wheel. We hope that this officer comes up with adaptations of proven solutions used by other cities and airports to abate noise, or perhaps some creative and innovative ideas of his own. He should then have the authority to put them into place. In short, we need an incumbent with a "can do" attitude and the authority to make things happen to reduce the noise. We do not need another public relations specialist to jawbone the issue and explain why relief cannot be provided.

PAGE 114, ELEMENT NO. 2 - "NOISE ABATEMENT ADVISORY COMMITTEE" - This is a bland recommendation whose only value would lie in the authority of an advisory committee to make recommended modifications to the Noise Abatement Program. It seems to us that there is a possibility that this committee's advisory responsibilities might overlap and conflict with the presently constituted Aviation Advisory Committee. We have no problem in concurring with this recommendation, but it appears to be lacking substance.

PAGE 115, ELEMENT NO. 3 - "NOISE COMPLAINT MONITORING PROGRAM" - We concur with this recommendation. Please see our Recommendation No. 4 in the attachment to our letter dated August 23, 1989, Appendix E to the Draft Study.

PAGE 116, ELEMENT NO. 4 - "NOISE ABATEMENT DEPARTURE PROFILE" - We concur with this recommendation. However, its effectiveness depends on several things. It will depend on the cooperation between the local FAA Manager, the airlines, and the authority of the Noise Abatement Officer. The Noise Abatement Officer must have the capability to verify compliance, detect and identify violators who repeatedly fail to comply, and, most importantly, he must have the authority to levy fines in order to bring violators into compliance.

PAGE 118, ELEMENT NO. 5 - "PILOT ADVISORY PROGRAM" - We concur with this recommendation which depends on the good will of the airlines to recognize our noise problem. We fail to understand the part of the recommendation which requires the Department of Aviation to submit an application for an FAA grant to fund this program. The "Program" consists merely of signs placed at the end of six runways, a one-time $15,000.00 cost for the signs and a $1,500.00 annual cost to produce and circulate notices. We are under the distinct impression that if the City is acting in good faith and is truly serious about a Noise Abatement Program, it can find this piddling amount in airport-generated revenues. The signs will be placed, after all, on City-owned property.

PAGE 119, ELEMENT NO. 6 - "RESTRICTIONS ON ENGINE RUN-UP" - We concur with this recommendation albeit a drop in the bucket as far as solving the real noise problem at the airport. We are grateful, however, for any restrictions which help to reduce engine noise.

PAGE 120, ELEMENT NO. 7 - "GREATER PERCENT OF STAGE 3 AIRCRAFT" - We have previously addressed the confusing and conflicting assumptions regarding the influx of Stage 3 aircraft to San Antonio in the future. Even if we make the most optimistic assumption, which is that San Antonio will be fortunate enough to have a 43% mix of Stage 3 aircraft in 1993 in lieu of its current 22% mix, it will require the airlines to move Stage 3 aircraft into San Antonio at a rate more than twice that being experienced nationally in the commercial fleet. Furthermore, FAA data submitted to Congress in August 1989 clearly shows that "in absolute terms the total U.S. Stage 2 fleet has actually increased by approximately 300 aircraft in

the last ten years." Furthermore, that report also shows that there are 350 more Stage 2 aircraft in the fleet today than were forecast three years ago. Given this historical basis, it is inconceivable to us that TransPlan nevertheless believes that San Antonio will reach 43% Stage 3 aircraft by 1993 without substantial monetary and regulatory incentives to induce the airlines to increase the flow of Stage 3 aircraft to San Antonio. The Study specifically recommends that this be a voluntary program. It offers the suggestion that the City endorse a letter from the Noise Abatement Officer to grant recognition to those airlines that participate in a voluntary program. There is no carrot and no stick in such an approach and the airlines will merely continue to fly Stage 2 aircraft to San Antonio from now until 1993 and beyond.

PAGE 121, ELEMENT NO. 8 - "NOISE MONITORING" - We concur with this recommendation even though it does not go far enough. We believe that periodic noise monitoring may be helpful to identify progress or the lack thereof as San Antonio hopefully proceeds on an effective noise abatement program. However, we believe that in the long run a permanent noise monitoring capability, including sensors, qualified operators and the necessary logistics should be funded by airport-generated revenues. This capability would provide a way to measure program effectiveness, but will, in addition, provide the Noise Abatement Officer with the necessary tools to identify violators of San Antonio's approved noise abatement procedures.

PAGE 122, ELEMENT NO. 9 - "COMPREHENSIVE LAND USE PLANNING AND ZONING" - We have already commented on this recommendation and hereby reaffirm that we believe it is useful when considering vacant or undeveloped land, but is worse than useless for application in established, developed neighborhoods.

PAGE 124, ELEMENT NO. 10 - "ACCOUSTICAL TREATMENT/AVIGATION EASEMENTS" - The public buildings which were included as part of this Study fail to take into account our churches and auditoriums. We have previously commented on the fact that this recommendation is toothless because of the disclaimers made about funding.

PAGE 126, ELEMENT NO. 11 - "DISCLOSURE ORDINANCE" - See our previous comments under the entry for Page 78.

PAGE 127, ELEMENT NO. 12 - "PURCHASE ASSURANCE PROGRAM" - See our comments under the entry for Page 79.

The following comments apply to APPENDICES to the Draft Study:

REFERENCE THE MINUTES OF THE TECHNICAL ADVISORY COMMITTEE MEETING HELD ON TUESDAY, MARCH 22, 1988, PAGE 3: We note that, "Chastain discusses the abatement options which can be realistically accomplished by 1992." The first two options considered to be realistic by Mr. Chastain were, (1) an increase in utilization on Runway 3-21 and a decrease on 12/30, and (2) extension of Runway 3-21. Considering the fact that TransPlan began their study on the heels of the Cress Study initiated in 1983, we think it is significant that increased utilization and extension of the secondary runway were paramount on Mr. Chastain's list of options that could be realistically accomplished. Our conversations with Cress confirm that they also considered these to be realistic options.

REFERENCE MINUTES OF THE COMMUNITY ADVISORY COMMITTEE MEETING TUESDAY, MARCH 22, 1988, PAGE 2: In response to a question from Charles Stern about the status of San Antonio International serving as a hub, "Kutchins responds that San Antonio is not interested in serving as a hub." We are curious as to why this statement conflicts with an article in the EXPRESS-NEWS dated August 29, 1986, headlined "AIRPORT TO SEEK ADDITIONAL TRAFFIC - HUB CITY DESIGNATION AMONG GOALS," and a quote by Mr. Kutchins, which says, "This is implementation of something that we've been working on for a year and a half. We have identified the demand." The article also quotes Mayor Cisneros, who said the City also will try to find an airline that will establish San Antonio as its hub, then "Cities not thought of as hub cities are developing economically because some airline selected them as a hub city." Mr. Kutchins' statement in March 1988 is in direct conflict with the City's sentiments expressed two years earlier. What changed?

REFERENCE MINUTES OF THE TECHNICAL ADVISORY COMMITTEE AND THE COMMUNITY ADVISORY COMMITTEE MEETINGS HELD ON MAY 31, 1988: TransPlan recommended increased use of Runway 3/21 from 8% to 20% and extension of Runway 3/21. We concur with these recommendations. Examination of these alternatives did not even consider what additional noise abatement could be provided by use of displaced threshholds used in conjunction with an extended runway. Nevertheless, we think the recommendations have merit and are still puzzled by their arbitrary elimination only four months later.

REFERENCE THE COMMUNITY ADVISORY COMMITTEE MEETING MINUTES OF MAY 31, 1988, PAGE 2: It states "Fryberger requests immediate action on Alternatives 1 and 6." This is in error. It should read, "requests action on Alternatives 1, 2 and 6," because the Oak Park-Northwood Neighborhood Association has been a strong advocate of Alternative 2 since mid-1986.

REFERENCE THE COMMUNITY ADVISORY COMMITTEE MEETING MINUTES OF MAY 31, 1988, PAGE 3: It was at this meeting, a mere two months after TransPlan submitted as their second alternative increased utilization of Runway 3/21, that it was arbitrarily determined by the Technical Advisory Committee (not the Community Advisory Committee) that the Second Alternative needed to be studied again. There never was any rationale offered to the Community Advisory Committee meeting as to the requirements for restudying this alternative. It was then arbitrarily eliminated in September 1988.

REFERENCE MINUTES OF THE COMMUNITY ADVISORY COMMITTEE MEETING, SEPTEMBER 28, 1988, PAGE 3: It states, "In response to Phil Fryberger, Chastain (TransPlan) explains that to be beneficial, it is necessary to hold the Technical Meeting separate from the Community meeting." Mr. Chastain did not explain to whom it would be beneficial.

REFERENCE MINUTES OF THE TECHNICAL ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 1: It states, "The five year projection (1993) Noise Exposure Map will contain very little change. Stage 3 aircraft will reduce this contour over time." This basic premise and bias and apparently false assumption is threaded throughout the Minutes of all the Technical and Community Advisory Committee meetings as well as throughout the Draft Study. This assertion is refuted by the historical data and forecasts contained in the FAA Report to Congress entitled "Status of the U.S. Stage 2 Commercial Aircraft Fleet" dated August 1989. The assumption that we can sit back and await the influx of Stage 3 aircraft and thereby solve our noise pollution problems in San Antonio without offering incentives to cause this to happen is surely unrealistic. Experience nationwide indicates that the only cities

who obtained relief from excessive airport noise are those who are willing to take stringent measures to make it happen.

REFERENCE MINUTES OF THE TECHNICAL ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 2: It states, "Mr. Davis (Airline Pilots Association representative) asked why the runway preferential use was eliminated as an option. Mr. A'Hara (TransPlan) answered that the complete rationale is in the expanded version." We have read the expanded version of the Study from cover to cover and find no complete rationale for elimination of the runway preferential use as an option. It is merely described as an alternative and summarily rejected without any qualitative or quantitative analysis to support the rejection.

REFERENCE MINUTES OF COMMUNITY ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 1: It states, "the draft will be available for the public to review for at least three weeks prior to the hearing." The Draft was received in the public libraries on October 9, 1989, and the Public Hearing was on October 24, 1989. In this regard, we would like to note that TransPlan has been preparing this Study since November 1987 when it assumed the task of a follow-on study to the Cress Study which was initiated in November 1983. At this point, we have approximately $500,000.00 and five years sunk into the project. Although we have only been privy to the Draft Study since October 9th, and have therefore necessarily only been able to make these few cursory observations about it, we hope that our remarks and comments will not derail the progress of this Study. We urge that it be accepted and approved by all parties required to accept and approve it, and that no further delays prevent noise abatement from becoming a reality in San Antonio before 1993, and hopefully sooner.

REFERENCE MINUTES OF COMMUNITY ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 3: On Page 3, Mr. A'Hara is quoted as saying, "that San Antonio in recent years has been somewhat under the national average of percentage of Stage 2 versus Stage 3 aircraft . . ." We believe Mr. A'Hara should have said that San Antonio is far under the national average. We believe that 22% locally versus 40% nationally as of January 1989 (Reference FAA Report to Congress dated August 1989) is enough to justify our belief that airport noise in San Antonio is not merely a neighborhood problem - it is a City problem.

REFERENCE MINUTES OF COMMUNITY ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 4: Mr. A'Hara is quoted as saying, "that responsibility for enacting the noise abatement program rests with the City of San Antonio through its Department of Aviation." We concur. He also is quoted as saying, "the Noise Abatement Officer will be responsible for monitoring the implementation of the Noise Compatibility Program . . . ." As we mentioned previously, the Job Description prepared by the Director of Aviation for the Noise Abatement Officer states emphatically that "the employee will be primarily responsible for public relations . . . ." It is our belief that in order for the Noise Abatement Officer to be effective, the Job Description must be rewritten to eliminate such words as "monitoring" and "public relations." Instead, words such as "manage, execute, plan, organize, direct, coordinate and control" should be used freely throughout the Job Description. The incumbent for this position must have the authority commensurate with his responsibilities to be an effective Noise Abatement Officer.

PAGE 4: Mr. Labatt is quoted saying, "It appears that . . . the airplanes have become quieter and bigger, but the resulting noise levels have not substantially changed since 1978." This canard is repeated and threaded throughout the various meetings that have been held since 1987 and the Draft Study itself. There is no

substantive analysis to justify the assertion that "it appears the airplanes have become quieter."

REFERENCE MINUTES OF COMMUNITY ADVISORY COMMITTEE MEETING, AUGUST 15, 1989, PAGE 5: In response to a question by Mr. Labatt as to why the increased use of Runway 03-21 was eliminated, Mr. A'Hara responded that, "It would also complicate the safety aspects of the air traffic control procedures." If this is a true statement, safety aspects of air traffic control were complicated for six months in 1986. No data or analysis has been offered to substantiate the assertion that safety may be compromised by increased use of the alternate runway. On the subject of safety, we offer the following comments.

It is not our desire to propose air traffic route changes or flight profile changes which might impair the safety of aircraft crews and passengers flying out of San Antonio International Airport. However, we do not fully understand why consideration of runway rotation or preferential runway or flight path variations were arbitrarily eliminated from consideration for use at San Antonio. We must keep in mind that during the period from March 1986 through October 1986, during the hottest time of the year, all traffic was departing and arriving on the secondary runway, which is 1,000 feet shorter than the primary runway. Safety was certainly not an issue at that time unless the City and the FAA care to acknowledge that the airport was operated unsafely during that six month time period. If safety is to be considered, the City and the FAA should look to other factors which affect safety far more than any noise abatement procedures. The City, the FAA, the airlines, and the passengers who are rightly concerned about safety should spend more time expressing their concerns about the recent troubles with the DC-10's which appear to apparently stem from safety issues evolving from the design, inspection and maintenance of these aircraft. There have been contradictory spectacles of one bureaucrat telling Congress that "The DC-10 is a perfectly safe plane," while others say that there may be "tiny flaws" in the engines of many DC-10's because of improper manufacturing processes. There is no dearth of information on recent commercial airline accidents. In mid-September a Boeing 737 aborted takeoff at LaGuardia and flew into the East River. The immediate reasons suspected of having caused this accident were engine trouble, pilot error or poor maintenance. In July of this year a U.S. Air jet landed in Charlotte, N.C. without one gear down. Mechanics had left wheel blocks inside the landing gear compartment rendering it inoperable. Deregulation of the airline industry has spawned mergers and labor disputes that have produced cost cutting on maintenance, plus something less than diligence on the part of angry workers, all of which tend to put the flying public at greater risk than noise abatement procedures. Some Congressional representatives are getting fed up with the system where airline operators seeking to survive or show profits are using planes that are too old, flown by pilots who are strike breakers and who are sometimes far from competent. Industry leaders appear more concerned with mergers, takeovers and junk bond buyouts. Instead, they should be concerned with moving people from Point A to Point B safely, and at a fair price that all passengers can understand, and with minimum disruption to the community which they serve. We are unaware of any documented case where compliance with approved noise abatement procedures has been the cause of a fatal aircraft accident. As current and future passengers, we are as vitally interested as others are in the issue of air safety. We are not unaware that the average age of a commercial aircraft has jumped from eight years in 1980 to 12 years in 1989. The older airplanes have increased airline maintenance budgets because they need to be inspected and repaired more frequently. In 1973, the British aircraft regulators required that airplanes be retired when they reach expected design life, but this does not seem to be a

realizable policy in the U.S.A. Since we do not seem willing to retire old jets, we must be concerned about the safety issues which an aging fleet represents. Certainly this is more important from a safety standpoint than raising the issue of safety to defeat the use of reasonable noise abatement alternatives used elsewhere. By raising the issue of safety when it is obvious that strong noise abatement measures are needed, attention is diverted from the need to adapt reasonable and effective strategies to resolve our local situation. What is lacking here in San Antonio is the proper diligence to tailor approved procedures to specifically meet both noise abatement and safety requirements at San Antonio International Airport. Let's concentrate harder on the admittedly difficult process of developing effective short-term noise abatement procedures to mitigate the noise in our area rather than dragging "red herrings" into the picture which tend to muddy the water.

REFERENCE PAPER ON THE AIRLINE PILOT ASSOCIATION NOISE ABATEMENT COMMITTEE (UNDATED AND UNSIGNED), PAGE 2, PARAGRAPH ON AIRPORT CURFEWS: We note that "ALPA opposes the imposition of curfews at airports where air carriers operate because of the detrimental effect such curfews can have on flight safety." Here's another case of an organization raising the bugaboo of flight safety when in fact there is merely a scheduling problem. If the airlines cannot arrange to arrive and depart in compliance with a curfew, they should reschedule their operations.

REFERENCE PAPER ON THE AIRLINE PILOT ASSOCIATION NOISE ABATEMENT COMMITTEE (UNDATED AND UNSIGNED), PAGE 3, LOCAL NOISE PROCEDURES PARAGRAPH: This paragraph states in part "ALPA supports and encourages federal pre-emption of local airport control of noise standards and procedures . . . ." We disagree with this entire paragraph.

An Aviation Noise Abatement Policy was published by the Department of Transportation in the United States of America effective November 18, 1976, which seems to us to be national in effect. That policy plus decisions by the U.S. Supreme Court dating back to 1946 have clearly established that responsibility for noise abatement actions at individual airports is clearly the responsibility of the local government. The variety of airports in the United States demonstrates that an airport noise reduction strategy cannot be completely generalized or implemented on a national basis. The individual geographic locations and settings in each city must be approached on an airport-by-airport basis, and while all levels of government and the private sector should work to solve the problem, it is now firmly established that the airport proprietor - in this case the City of San Antonio - is responsible for the consequences which attend the operation of a public airport. We are strongly opposed to any suggestion that federal pre-emption in the area of local noise abatement measures should be considered. It is only by use of local government power that the City can respond to the citizens' needs to reduce aviation noise. It is local government who should be concerned and have the responsibility for the health, safety and welfare of its citizens. Noise procedures which may restrict air travel to reduce the negative effects of airport noise are clearly within the authority of the City of San Antonio. It is our firm belief that it is the City of San Antonio's responsibility to protect the citizens adjacent to the airport. The history of Congressional legislation and court decisions since 1946 gives the City the authority to go along with that responsibility. The suggestion to encourage federal pre-emption of local airport control, coming from a self-serving, special interest union, is inappropriate.

REFERENCE PAPER ON THE AIRLINE PILOT ASSOCIATION NOISE ABATEMENT COMMITTEE (UNDATED AND UNSIGNED), PAGE 3, PARAGRAPH ENTITLED "PENALTIES FOR AIRCRAFT NOISE:" We note that "ALPA opposes any attempt to assess penalties against individual pilots for violations of airport or governmental noise criteria." This is another flagrant and arrogant notion by a union to flaunt Congressional intent expressed in legislation dating back at least to the Aviation Safety and Noise Abatement Act of 1979. The insolence of this union position is reminiscent of the insolence displayed by another union (PATCO) when Air Traffic Controllers went on strike in defiance of the law and thereby threatened the safety and welfare of airline crews and passengers. No organization is above the law.

REFERENCE PAPER (UNDATED AND UNSIGNED) ON THE AIRLINE PILOT ASSOCIATION NOISE ABATEMENT COMMITTEE, PAGE 4, PARAGRAPH ENTITLED "NOISE ABATEMENT:" This paragraph suggests the goal of "a national noise abatement policy." We are under the impression that when the Department of Transportation, Federal Aviation Administration, issued an Aviation Noise Abatement Policy on November 18, 1976, that a national noise abatement policy was established. We see no need for a self-serving union effort to replace a well established policy.

Submitted by:

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. H. Fryberger

P. H. FRYBERGER
CHAIRMAN
November 10, 1989

PHF:eaf

The following comments pertain to APPENDIX C "NEM Checklist."

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 1, Paragraph I.A.2	X	This entry is in conflict with the entry in Appendix D "NCP Checklist," Page 1, Paragraph I.A.2, which indicates that an NEM and NCP are being submitted together.
Page 1, Paragraph I.C.	X	This indicates that there is a dated cover letter from the City. No such letter is included in the Study. We request a copy of this letter be provided to us.
Page 1, Paragraph II.C.	X	This indicates that City certification has been provided. This is not included in the Draft Study. We request a copy of this certification be provided to us.
Page 2, Paragraph III.B.1	X	This entry has to do with map currency and indicates that the existing condition map year (1987) does not match the year on the airport operator's submittal letter. We request a copy of the submittal letter to determine what year is being used by the City in its submittal letter.
Page 2, Paragraph III.B.2	X	We disagree that the forecast maps are based on reasonable planning assumptions. See our previous remarks regarding this subject. Furthermore, we disagree that the five year map is for the fifth calendar year after the year of submission. Instead, it is the sixth calendar year after go-ahead on the contract. If 1989 is the year of submission, the calendar year for the forecast would be 1994, and we will be trapped in the red tape of yet another study.
Page 2, Paragraph III.B.3	X	We again request a copy of the cover letter which indicates airport operator's verification. We have little quarrel with the data portrayed on the 1987 Noise Exposure Map, however, we have grave reservations regarding the accuracy and credibility of the 1993 Noise Exposure Map because of the conflicting and contradictory assumptions and the flawed analysis and conclusions flowing therefrom.
Page 3, Paragraph IV.D.2	X	We are unsure of what this entry means, but reiterate our concern about the doubtful value of the data used to forecast the five year NEM
Page 3, Paragraph IV.E.	X	Again, we question the validity of the five year NEM.
Page 4, Paragraph IV.G.2	X	The following noise sensitive public buildings were not identified on the NEM: churches and auditoriums.

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 4, Paragraph IV.G.4	X	The explanation in the accompanying narrative is merely an essay on the partially subjective nature of human responses to noise, and appears to be a disclaimer for so-called land use planners.
Page 4, Paragraph V.A.2	X	We do not believe that the underlying technical data and planning assumptions are reasonable. We have previously identified the confusing and conflicting statements regarding assumptions for the 1993 Forecast which appear on Pages 77, 86 & 107 of the Draft Study. We have also pointed out the lack of objectivity regarding the bias of the Study towards only one goal identified in the "Purpose" for Noise Compatibility Planning. The Study contains a great deal of sophistry to bolster its premise that despite increased air operations the noise impact will essentially remain unchanged because increased percentage of Stage 3 aircraft will magically materialize without any incentives for the airlines to make such a decision regarding San Antonio.
Page 6, Paragraph V.C.5	X	Our previous comments regarding the unreliability of the basic assumptions used for forecasting are hereby reiterated.
Page 6, Paragraph VI.A.	X	Under the rules of the game, we suppose that we must agree that as interested persons we have been afforded adequate opportunity since October 9, 1989, to submit our views and comments concerning the correctness and adequacy of the Draft Maps and Forecasts which have taken at least five years, to our knowledge, to develop. We are pleased that th FAA and the City, along with its contractor, have identified the parameters of the current unacceptable noise levels stemming from the City's operation of its airport. Again, we request a copy of the cover letter.
Page 6, Paragraph VI.B.	X	We request a copy of the cover letter.
The following comments pertain to APPENDIX D "NCP Checklist."		
Page 1, Paragraph I.A.2	X	This conflicts with Paragraph I.A.2, Page 1, of the NEM Checklist. We believe that this entry is correct and the entry in the NEM Checklist is incorrect.
Page 1, Paragraph I.C.	X	Request a copy of the transmittal letter signed by M.K. for the NCP.

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 1, Paragraph II.D.1	X	This is an incorrect entry. Appendix E is not a summary of public hearing comments. Appendix E contains comments on TransPlan's Briefing Report dtd. 8/15/89. As indicated on the cover letter in Appendix E, those comments were submitted on 8/23/89 and the Draft Study was not available for review until 10/9/89, and the Public Hearing didn't occur until 10/24/89. In other words, Appendix E was submitted two months before the Public Hearing.
Page 2, Paragraph II.D.2	X	This entry is incorrect. Appendix E is not indicated as having been included in all written material submitted to the operator. In addition to Appendix E, other written material provided to the operator and which should be included are the submittals contained in (1) Oak Park-Northwood's letter dtd. 10/24/89 which transmitted our public comments presented at the Public Hearing held on October 24, 1989, and (2) these written comments contained in our ltr. dtd. 11/10/89 which are submitted in accordance with FAR Part 150 requirements and Congressional intent
Page 2, Paragraph II.D.3	X	We are unaware of the operator's response or disposition of written and verbal comments. We request copies of his responses or disposition if they are now available.
Page 2, Paragraph III.A.4	X	Please provide us the date that has been established for "Map Compliance Finding."
Page 2, Paragraph III.D.	X	This entry indicates that the five year map is clearly identified as the Official NEM. We again voice our lack of confidence in its credibility.
Page 3, Paragraph IV.A.	X	We have previously identified the lack of substantive, qualitative and quantitative analyses to substantiate acceptance or rejection of any particular alternative. In the first place, the assumptions are tainted because they are contradictory and, therefore, confusing. Any analysis flowing from these tainted assumptions we believe to be flawed. Furthermore, most of the purported analyses contained in the Study are merely descriptions of the alternatives without any in-depth examination to determine their suitability for specific application to our airport.
Page 3, Paragraph IV.A.6	X	Reference our remarks about Element No. 5 - "Pilot Advisory Program" on Page 118 of the Study. We see no reason to delay this element further by awaiting the largesse of a grant from the federal treasury when it is clearly within local authority and capability to accomplish it now.

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 3, Paragraph IV.A.7	BLANK	It is interesting to us that this entry shows that the FAA made no other recommendations to solve the noise problem in San Antonio. This amazing fact was highlighted during the Public Hearing when TransPlan was challenged by a speaker who wanted to know why there was nothing included in the Study to show how other cities had solved their airport noise pollution problems. The question is, "Why do we have to reinvent the wheel?"
Page 3, Paragraph IV.C.2 & Paragraph IV.C.3	X X	We have already expressed our belief that very little analysis took place during this Study, and what analysis did take place was tainted by conflicting assumptions and, therefore, flawed the reasoning for accepting or rejecting alternatives.
Page 4, Paragraph IV.D.	X	We are again amazed that no other actions are recommended by the FAA to solve the City's growing noise problem. Is the FAA interested in trying to help us solve the problem, or not? Do we need to reinvent the wheel?
Page 4, Paragraph V.A.2	X	This entry indicates that the final recommendations are the airport operators, not those of consultant or third party. We are unable to determine if this is a true statemen by reading the Study. However, we have been told by the FAA Southwest Region that the City Staff has no one competent on the staff to determine the acceptability or non-acceptability of noise abatement measures. We have further been told by the City that the FAA Southwest Region acts as their Technical Consultant on noise abatement matters. The FAA Southwest Region is paying 80% of the cost for TransPlan's contract. We, therefore, conclude that both the FAA SW Region's and TransPlan's thumb prints are all over this Study. We assume the City accepts guidance from its Technical Consultant in these matters
Page 4, Paragraph V.B.5	X	We believe this is incorrect and that the assumptions used, although relevant, were not reasonable as far as the Forecast for 1993 is concerned.
Page 4, Paragraph V.C. & D.	X	Our previously stated concerns about the lack of analysis apply here also.

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 5, Paragraph V.E.	X	We believe that the recommendations fail to meet Part 150 analytical standards because the Study fails to consider a balanced approach as required and stated in the initial paragraph entitled "Purpose" in the FAA Circular 150/5020-1 dtd. August 5, 1983. That "Purpose" paragraph announces two goals of airport noise compatibility planning, which are: First, to reduce existing noncompatible land uses (by noise abatement) around airports, and, secondly, to prevent the introduction of additional noncompatible land uses. The Study is clearly biased towards the secondary goal. Furthermore, in our opinion, the Study merely nibbles at the problem and fails to come to grips with it because it avoids this balanced view.
Page 5, Paragraph V.G.1	X	Page 112 of the Study purports to identify agencies which are responsible for implementin each recommendation. These are mere recommendations by TransPlan. To our knowledge, no on in the City or anywhere else has accepted any of the responsibility required to implement each recommendation. Furthermore, it is questionable at this point not only whether they will accept the responsibility, but whether or not they will have the authority an funds to meet that responsibility.
Page 5, Paragraph V.G.2	X	This entry supports our comments in the above entry.
Page 5, Paragraph V.H.2	X	This entry indicates the period covered by the program. However, if one looks at Figure 6-1 on Page 105, all that is indicated is a bar graph between 1989 and 1993 which we cannot understand.
Page 5, Paragraph V.I.	X	This paragraph discusses funding and costs. The Study is replete with disclaimers and exculpatory remarks indicating the remote possibility of funding and the difficulties which must be faced to obtain funding. In essence, these disclaimers make mere rhetoric of any recommendations that would require public funds from either the federal or local government.
Page 5, Paragraph VI.	BLANK	This entry indicates no provision for revision of the program. We believe such a provision i essential because, even though the Draft Program submitted by TransPlan is a flawed one it is a beginning, and we do not want the

PAGE/PARAGRAPH	YES/NO/NA	NOTES/COMMENTS
Page 5, Paragraph VI. (continued)		$500,000.00 and five years expended to this point to be wasted. We hope that the process will continue and that our concerns about the tainted assumptions used for forecasting will be addressed. We hope that those alternatives which have been summarily eliminated will be reconsidered because, if they aren't, it is difficult to foresee how the projections made b TransPlan for the year 1993 will be achievable. The airport is not the same airport it was 30 years ago, 15 years ago, or even 5 years ago. The noise problem is increasing, air operations are forecast to increase, the Stage 2 fleet is not being reduced as previously forecast by infusion of Stage 3 aircraft, and, therefore, we must change with the times. In order to change and achieve the twin goals of reducing and preventing airport noise, we must have a provision to revise the Draft Program submitted by TransPlan on October 5, 1989.

Submitted by:

OAK PARK-NORTHWOOD NEIGHBORHOOD ASSOCIATION

P. H. Fryberger

P. H. FRYBERGER
CHAIRMAN
November 10, 1989

PHF:eaf

CITY OF SAN ANTONIO

DEPARTMENT OF AVIATION
9800 AIRPORT BOULEVARD
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(512) 821-3450 FAX: (512) 821-3500

December 11, 1989

Mr. Stuart D. Summers
Director of Economic and
Employment Development
City of San Antonio
P. O. Box 839966
San Antonio, Texas 78283-3966

Dear Mr. Summers:

Thank you very much for your comments regarding the San Antonio International Airport Part 150 Noise Compatibility Study.

The views and actions of the community and DEED are critical to the success of any noise abatement program ultimately adopted.

Your comments will be submitted with the report to the Federal Aviation Administration.

Cordially,

Geraldine F. Stallman

Geraldine F. Stallman
Assistant to the Director

GFS:s

cc: Don Harris, FAA
TransPlan

CITY OF SAN ANTONIO

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November 8, 1989

Mr. Michael Kutchins
Director of Aviation
International Airport
City of San Antonio
9800 Airport Boulevard
San Antonio, Texas 78216

Dear Mr. Kutchins:

Noise Compatibility Study

Thank you for the opportunity to review the Executive Summary of the San Antonio International Airport FAR Part 150 Noise Compatibility Study. I am sorry that other obligations prevented me from being able to attend the public hearing on the study, but for the record, I would like to take this opportunity to give you my comments and to ask that they be included with the report when it is submitted to the Federal Aviation Administration.

First, from the perspective of Director of Economic and Employment Development, I am reminded daily of the importance of the International Airport as a key part of San Antonio's infrastructure for job creation and business retention and expansion. In the past three years, San Antonio has been experiencing unemployment rates that are at least one and one-half times the national unemployment rate. The Airport provides one of the key strengths that San Antonio has to attract new employers for our out-of-work citizens.

To that end, I can't support any proposal for a curfew on airport operations (as I understand some members of the community are proposing). I am particularly concerned about the need to have overnight cargo delivery service to San Antonio. Many of our new manufacturing concerns, such as Colin Electronics, produce high value-added products. These high tech businesses need reliable and adequate overnight delivery service for their customers. The same can be said for the business services industries, that despite our current economic recession are still growing in employment in San Antonio.

And if serious consideration is given to financial rewards or penalties to types of aircraft, I would prefer to see a discount for quieter aircraft landing fees rather than a surcharge in fees for stage 2 aircraft. My point is that we need to attract more air transportation service to San Antonio, and if we penalized new service, we would be limiting our abilities to attract more destinations for direct and indirect flights from and to San Antonio.

Overall, it appears that the proposed actions put San Antonio on the correct path for addressing the noise issue.

Thank you for giving me an opportunity to comment.

Sincerely,

Stuart D. Summers

Stuart D. Summers
Director of Economic and
Employment Development

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January 18, 1990

Mr. Philip Fryberger
Chairman, Oak Park-Northwood
P.O. Box 17093
San Antonio, TX 78217

Re: Response to FAR Part 150 Study Comments

Dear Mr. Fryberger:

Introduction

The overall objective of the FAR Part 150 Study is to develop a Noise Compatibility Program (NCP) which will accommodate airport operations while minimizing the effects of aircraft noise on existing noise sensitive development and will minimize any future incompatibilities to the greatest degree possible. This can be achieved through the implementation of procedures and measures designed to abate and mitigate noise effects.

The FAA does not require that the Part 150 process achieve a "balance" of noise distribution over an area surrounding the airport. Part 150 Section B15.5 states that a NCP should be developed which "Reduces existing noncompatible uses and prevents or reduces the probability of the establishment of additional noncompatible uses." To distribute the aircraft noise to new areas in the community not previously impacted and know that there will be a net increase in total population impacted is contrary to the overall objective of the study.

The comments that follow are in response to the Oak Park-Northwood Neighborhood Association comments dated 11-10-89 and comments presented by you as Chairman of the association at the Public Hearing held on 10-24-89. Some of your comments were repeated in the Oak Park-Northwood document therefore, the following response covers all topics contained in the two sets of comments.

"AN EQUAL OPPORTUNITY EMPLOYER"

1. **Page 10, 4th paragraph:**

The issue of Kelly and Randolph AFBs was discussed at great length and reviewed by both the Technical Advisory Committee and Community Advisory Committee. In addition to the these committees' review, a separate FAA task force was designated to examine the San Antonio terminal area procedures. Part of their assignment included the evaluation of alternative flight tracks for San Antonio International Airport specifically designed for noise abatement. This task force as well as U.S. Air Force members of the Technical Advisory Committee, studied this issue at length. The final determination of both groups revealed that due to the unpredictable nature and requirements of various military organizations' missions to Kelly and Randolph Air Force Bases no action could be taken to consistently institute special noise abatement arrival and departure procedures and flight tracks for San Antonio International Airport.

2. **Pages 12 and 13:**

Tables 1-2 and 1-3 differ in that the "Air Carrier" category of Table 1-2 includes cargo operations. The "Air Cargo" category of Table 1-2 indicates, as shown, millions of pounds carried. When the air carrier and all-cargo categories in Table 1-3 are added together, the total equals (in round numbers) the total air carrier operations number in Table 1-2.

3. **Page 14 Section 2-1.1:**

TransPlan's analysis of extending Runway 3-21 or increasing its utilization for the purpose of reducing noise at San Antonio revealed the following:

- Noise levels will be increased to the northeast and southwest thereby introducing high levels (65-75 Ldn) of noise to areas which were not previously exposed to such levels.

- There will be little reduction in the areas currently exposed to high levels of noise.

- The above conclusions are visually presented in Figure 5-4 of the study and supported by Tables 5-1 and 5-4.

Displacing the threshold of Runway 03 would not perceptibly reduce noise impacts associated with arrivals to that runway.

4. Page 24, "FAR Part 150 NEM - Land Use:

Both existing condition and future noise exposure contours indicate that areas southwest of the airport would not significantly benefit from a slight left turn after takeoff from Runway 21 due to the infrequent use of this runway for departures. Departure turns to the right for Runway 03 departures would adversely affect arrival and departure routes from other airports in San Antonio as well as create additional workload for air traffic controllers. Departure and arrival routing for all airports is standardized as much as possible to improve efficiency and minimize potential procedural errors which could compromise safety.

Revised color graphics with corrections are being printed for the Final Submittal to the FAA in Washington.

5. Page 27, Section 2-6:

Your comments regarding sensitive sites has been reviewed and revealed that eight churches do exist within the 65-75 Ldn contours. They are as follows:

- St. Pius X Church
- St. Thomas More Catholic Church
- MacArthur Park Church of God
- MacArthur Park Lutheran Church
- Bethel Memorial Lutheran Church
- Coker United Methodist Church
- Eisenhauer Road Baptist Church
- Alliance Bible Church

A graphic depicting the location of these sites is being developed and will be included in the report.

There were no auditoriums or cultural activity sites found within the noise contours surrounding San Antonio International.

6. Page 35, Section 3-3.1:

The FAA's INM computer model does not have the capability of processing wind velocity and direction for an airport case run. In addition, a simulated no-wind situation permits a worse case noise impact evaluation, which does not provide the benefit of more rapid climb angles for departure noise impacts.

Safety was not compromised during the period when Runway 03-21 was used. The use of Runway 3-21 worked because everyone cooperated. The military curtailed

operations and the airlines took weight penalties while the City paid a higher premium to have the contractor work approximately 22 hours a day. This in fact did have a negative economic impact.

7. Page 36, Section 3-3.5:

Runway 12R is preferred from a safety and air traffic control standpoint for the following reasons:

- o The prevailing wind is from the southeast.
- o The flow of traffic to and from other airports in the area is from the northwest.

8. Page 37, Section 3-3.7:

- o In reference to the validity of the 1993 Baseline Case, Page 43, Section 3-5 of the text defines the assumptions used in generating the forecasted contours.

  To further explain how the Stage 2 and 3 percentages were derived, references will be made to the attached Table 1. The FAA developed fleet mix percentage forecasts for 1993 were used to develop this case. As can be seen in the table the percent of each aircraft type estimated to exist in 1993 is given. Each aircraft type percent was then multiplied by the forecasted amount of total operations at SAT to arrive at total operations by type. Cargo operations were then factored in to yield the average operations per day by aircraft type, operating at San Antonio International Airport.

  The final result is a forecasted 57% Stage 2 and 43% Stage 3 fleet mix operating at San Antonio International Airport in 1993.

- o In 1989, a review of aircraft operations at the airport revealed that the current percent of Stage 3 aircraft using San Antonio is 45.5 percent as shown in Table 2. This represents a 23.5 percent increase in Stage 3 operations over the two years that the study has been on-going. This figure of 45.5 percent would also parallel the "National trend of 40 percent" as presented in your public hearing comments. Therefore, the consultant believes the 43 percent Stage 3 aircraft assumption used to develop the 1993 Baseline Case is reasonable, has been achieved, and remains valid for the purposes of this study.

- Regarding the Greater Percent of Stage 3 Aircraft Alternative presented in Chapter 5 of the study, a goal of attaining a 60 percent Stage 3 aircraft mix operating at San Antonio in 1993 was considered realistic and achievable. Again, in 1987 Stage 3 operations represented only 22 percent of the fleet mix which was far below the national norm. Setting a high goal of 60 percent by 1993 indicates the willingness of the airport to implement a program to achieve a quieter fleet operating in and out of the airport. Based upon the review done in 1989 as previously described, the 60 percent goal is more realistic to achieve than originally thought.

TABLE 1

SAN ANTONIO INTERNATIONAL AIRPORT
1993 FORECASTED OPERATIONS USING FAA FLEET MIX

AIRCRAFT TYPE	FAA EST. % 1993	SAT AIRLINE OPS. 1993	CARGO OPS.	TOTAL OPS.	FINAL %	AVERAGE DAILY OPS.	
STAGE 2:							
DC-9-10	7%	6,272	1,400	7,672	8%	21	
737-200	21%	18,816		18,816	20%	52	STAGE
727-100	2%	1,792	1,400	3,192	3%	9	TWO
727-200	26%	23,296		23,296	25%	64	57%
STAGE 3:							
MD-80	16%	14,336		14,336	15%	39	
737-300	21%	18,816		18,816	20%	52	STAGE
757	2%	1,792	500	2,292	2%	6	THREE
767	1%	896		896	1%	2	43%
DC-10	3%	2,688	400	3,088	3%	8	
L-1011	1%	896		896	1%	2	
TOTAL		89,600	3,700	93,300		256	

1987 Existing Case Operations = 89,600

TABLE 2

SAN ANTONIO INTERNATIONAL AIRPORT
ANALYSIS OF STAGE 2 AND STAGE 3 FLEET
(AS OF NOVEMBER 1989)

AIRLINE:	STAGE 2	STAGE 3	TOTAL	PERCENT STG.3
AMERICAN	210	240	450	53.3%
AMERICA WEST	0	115	115	100.0%
CONTINENTAL	296	147	443	33.2%
DELTA	348	147	495	29.7%
MEXICANA	60	0	60	0.0%
NORTHWEST	90	0	90	0.0%
PAN AMERICAN	30	0	30	0.0%
SOUTHWEST	272	662	934	70.9%
TWA	146	0	146	0.0%
UNITED	30	90	120	75.0%
USAIR	120	0	120	0.0%
TOTAL	1,602	1,401	3,003	46.7%
CARGO:				
ABX AIR	22	0	22	0.0%
AIR TRAIN	30	0	30	0.0%
EMERY	30	0	30	0.0%
FED EX	30	0	30	0.0%
UPS	0	30	30	100.0%
TOTAL CARGO	112	30	142	21.1%
TOTAL AIRLIN/CARGO	1,714	1,431	3,145	45.5%

9. **Page 38, Table 3-1:**

Your statement that economic benefits (lower fuel consumption) could be obtained by airlines if they were able to takeoff on a runway which is oriented in the direction of their final destination is correct. However, safety can not be compromised for economics. According to FAR Part 150 Appendix B Section B150.5 "Program Standards", one of the criteria is that the NCP "Does not derogate safety or adversely affect the safe and efficient use of airspace." As was stated in comment 1, due to various military missions occurring in the San Antonio area, no action could be taken to consistently institute special noise abatement arrival and departure procedures and flight tracks for San Antonio International.

10. **Page 41, Section 4-1:**

Wording will be changed to "The areas to the southwest and northwest reflect the fact that the majority of use is by arriving aircraft which are normally quieter than departing aircraft."

11. **Page 43, Section 3-5:**

Please refer to comments contained in item number 8.

12. **Page 46, Section 3-6:**

FAR Part 150 does not require a historical contour however the contours in this study are merely presented to show the 1978 noise conditions at San Antonio International.

13. **Page 49, Section 3-7.1:**

This contour is based on a 100% stage 3 fleet operating at San Antonio in the future. Boeing, McDonald Douglas and AirBus are continuously receiving record orders for new Stage 3 aircraft as the demand to replace older Stage 2 aircraft is accelerating beyond any FAA forecasts previously completed. Also there are several programs to retrofit Stage 2 aircraft to Stage 3 performance.

14. **Page 56, Section 4-3.1:**

Airport noise compatibility planning does have the goals of reducing existing incompatible land uses around airports and preventing the introduction of additional incompatible uses. Furthermore, measures in the proposed noise compatibility program are directed at reducing noise impacts.

15. **Page 63, Section 4-6:**

Please refer to comments contained in item number 5.

16. **Page 68, Chapter 5:**

All noise abatement and mitigation alternatives were analyzed and discussed with the Technical Advisory Committee as well as the Community Advisory Committee before acceptance or rejection into the NCP. There is no bias inferred in the study, either directly or indirectly.

17. **Page 71, Section 5-3:**

Additional criteria which were incorporated in the San Antonio International FAR Part 150 Noise Compatibility Plan are specified in FAR Part 150, paragraphs 150.35, and Appendix B, paragraph B150.5. No bias was intended.

18. **Page 73, Extension of Runway 3-21:**

An INM computer run was completed which showed that by increasing the use of Runway 3-21, new impacts would be introduced into areas which were not previously impacted by high levels of noise. This showed a net increase in the number of persons affected. Also important to the analysis was that the reduction of noise to areas already impacted was minimal.

19. **Page 75, "Limitations on Types of Operations....."**

Since the airlines are using more Stage 3 aircraft at San Antonio International (reference is made to item number 8) it was deemed to be unnecessary to implement such an action at this time. One of the elements of the NCP, "Greater percent of Stage 3 Aircraft" will allow for a continuous monitoring of the types of aircraft, and or operations at San Antonio. Should the airport find that a more rigid policy is necessary in the future this element may be considered as an amendment to the NCP. Part 150 does allow for amendments to be considered later as the elements of the NCP are implemented. Any such revisions to the approved Noise Compatibility Plan are subject to the same consultation, review and approval procedures as the original plan.

20. Page 76, Paragraph entitled "Landing Fees Based...."

The current contract with the airlines, which establishes fees and charges, does not expire until 1991. At that time the City may wish to consider this item as a noise abatement and mitigation measure. It should be noted that positive results are currently being achieved without threats or penalties through the cooperation of the airlines in the last two years.

21. Page 77, "Greater % of Stage 3"

Please refer to comments contained in item number 8.

22. Page 77, "Comprehensive Land Use Planning"

Land use planning and zoning can prevent future growth in undeveloped areas around the airport, as well as in developed areas already experiencing noise problems.

23. Page 78, "Disclosure Ordinance":

TransPlan believes this is an important element which should remain in the NCP. Such conditions can be noted on the plats of such land and included in the deed documents. Prospective buyers should be made aware of the extent and limits of aircraft noise exposure around San Antonio International Airport. Enforcement of this recommendation is strictly a function of the City of San Antonio.

24. Page 79, Purchase Assurance Program:

If approved by the Federal Aviation Administration, this measure establishes eligibility for Federal funding assistance. Availability of such funding is dependent upon the Congressional budget and the relative priority placed on implementation of this measure.

25. Page 80, Thrust Reduction:

While there is no practical method to validate that thrust reduction procedures are actually implemented by the flight crews, major air carriers serving San Antonio, as well as other airports across the country, are cognizant of the importance of this noise reduction procedure. Discussions were held during one of the Technical

Advisory Committee meetings concerning the FAA' Standard Thrust Cut Back Procedure as outlined in Advisory Circular 91-53A. The Air Transport Association of America (ATA) has assured us that the noise abatement departure profile as outlined in AC 91-53A or a substitute acceptable to the FAA is integrated into each pilot's handbook as the standard procedure to be used. Deviation from this procedure only occurs when safety would be jeopardized or more restrictive procedures are mandated.

Your comments regarding enforcement authority will be noted for future consideration.

26. **Page 80, Section 5-1.2:**

Please refer to comments contained in item number 1.

27. **Page 82, "Pilot Advisory Program":**

The City may wish to incorporate this as the NCP is implemented.

28. **Page 83, Section 5-4 "Analysis of.....":**

Complete analysis was performed and discussed with committee members and reviewed by airport staff.

29. **Page 86, Paragraph VI "Increase use of R 3-21":**

These statements are not biased and do not conflict with the goals of FAR Part 150. A thorough evaluation of this alternative was conducted. It revealed a significant increase in area not previously impacted by noise as well as a correspondingly significant increase in the number of persons affected. This alternative did not meet either criteria and was therefore rejected.

30. **Page 86, Paragraph VII:**

The discussion on pages 77, 86, and 107 do not conflict. The accompanying text clearly describes what assumptions were used to generate the INM contours.

31. **Page 98, Last Sentence:**

Please refer to comments contained in item number 8.

32. **Page 103, Chapter 6, Noise Compatibility Program:**

No confusion was intended, "Program" and "Plan" were used interchangeably in Chapter 6, Noise Compatibility Program. The correct nomenclature as shown in FAR Part 150, Appendix B is Noise Compatibility Program. You are correct in believing that this is to be an action "program" which should not sit uselessly on another shelf.

33. **Page 104, Section 6-1.4:**

FAR Part 150 requires that funding sources be identified. Under the current Airport Improvement Program budget, as appropriated by Congress, ten percent of funds are set aside for implementation of approved noise compatibility projects. Accurate estimates of how much funding will be available are dependent upon Congressional action, over which neither the City of San Antonio nor the FAA has control. If this measure is approved by the FAA in the noise compatibility plan, it is eligible for Federal funding assistance. See also item number 24.

34. **Page 106, Section 6-1.7:**

Please refer to comments in item number 33, above.

35. **Page 107, Section 6-2.1:**

Please refer to comments in item numbers 8 and 30, above.

36. **Page 112, Table 6-1:**

Please refer to comments in item number 33, above.

37. **Page 113, Element No.1 Noise Abatement Officer:**

This comment concerns itself with the job description of the Noise Abatement Officer and not the Part 150 Study.

38. **Page 114, Element No.2 Advisory Committee:**

This committee's function does not duplicate that of the Airport Advisory Committee. It is intended to specifically monitor and guide the implementation of the noise compatibility plan.

39. **Page 115, Element No.3 Complaint Monitoring:**

This option may be exercised by the City of San Antonio if it is deemed beneficial.

40. **Page 116, Element No.4 Departure Profile:**

Please refer to comments in item number 25, above.

41. **Page 118, Element No. 5 Pilot Advisory Program:**

The signs which will be used for this element of the study must be integrated into a sophisticated lighting system and comply with Federal regulations.

If this plan element is approved by the FAA, costs associated with it become eligible for, but not dependent upon federal assistance. Sources of funding of this element are a determination to be made by the City of San Antonio.

42. **Page 119, Element No.6 "Restrictions on Engine Run-up":**

This plan element recommends the continuation of a restriction which contributes to controlling noise from airport-related operations.

43. **Page 120 Element No.7 "Greater % Stage 3":**

Please refer to comments in item number 8, above. Furthermore, it must be understood that it is both legal and permissible for air carriers to operate Stage 2 aircraft throughout the United States. It has been determined by the City of San Antonio that a program of voluntary encouragement and recognition will produce more beneficial results in achieving increased use of Stage 3 aircraft at San Antonio than would restrictive measures, which invite litigation.

Positive results are being achieved without threats or penalties through the cooperation of the airlines as exhibited by the more than doubling of Stage 3 aircraft in the last two years.

44. **Page 121, Element No. 8 "Noise Monitoring":**

The City of San Antonio believes that the proposed measure will accomplish the same objectives as a permanent noise monitoring system at greatly reduced costs than those which would be incurred with establishing and maintaining a permanent system.

45. **Page 122, Element No.9 "Land Use Planning...":**

Please refer to comments in item number 14, above. It is emphasized that this is a preventive measure, not remedial, which is consistent with the goals of FAR Part 150.

46. **Page 124, Element No. 10 "Acoustical Treatment":**

Please refer to comments in item number 5.

47. **Page 126, Element 11 "Disclosure Ordinance":**

Please refer to comments in item number 23.

48. **Page 127, Element No. 12 "Purchase Assurance Program":**

Please refer to comments in item number 24, above.

The remaining comments refer to minutes of the various Technical Committee Meetings and Community Advisory Committee Meetings. The Noise Exposure Map and Noise Compatibility Plan checklists are included to assist in the FAA's review of the document for compliance with FAR Part 150 requirements.

We appreciate your participation in the development of this plan as a member of the Community Advisory Committee. Your comments concerning the draft document will be appended to the final document to be submitted to the FAA for review and evaluation.

Sincerely,

Michael J. Kutchins, A.A.E.
Director of Aviation

c.c. Don Harris, FAA