

**Final Report**

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**PAHRUMP VALLEY  
AIRPORT SITE SELECTION STUDY**

**NYE COUNTY, NEVADA**

**March 1987**

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**Aries Consultants Ltd.**

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March 1987

Mr. Stephen T. Bradhurst  
Nye County Planning Consultant  
Nye County Department of Planning  
Post Office Box 153  
Tonopah, Nevada 89049

RE: Final Report, Pahrump Valley Airport Site Selection Study

Dear Mr. Bradhurst:

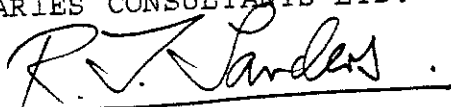
Aries Consultants Ltd. is pleased to submit the Final Report for the Pahrump Valley Airport Site Selection Study prepared as part of the County-wide Airport Master Plan Study.

The report presents the findings, conclusions, and recommendations of the comprehensive technical study of airport sites in the Pahrump Valley. The principal findings and recommendations of the study are presented in Chapter I, Introduction and Summary. The succeeding chapters describe the economic analysis and aviation demand forecasts, airport requirements, potential airport site areas, evaluation of selected airport site areas, airport layout plan and master plan, and implementation plan. An environmental reconnaissance of the airport sites in the Pahrump Valley is also included as an appendix.

Aries Consultants Ltd. and Consulting Engineering Services, Inc. have enjoyed working with Nye County on this project, and we have appreciated the cooperation and contributions made by the Nye County Commissioners and County staff.

Yours sincerely,

ARIES CONSULTANTS LTD.



R. John Sanders  
President

RJS/gdr  
Enclosure



A Corporation

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## Chapter I

### INTRODUCTION AND SUMMARY

#### BACKGROUND

In October 1985, Nye County, Nevada, initiated a County-wide Airports Master Plan Study under the Federal Aviation Administration's Airport Improvement Program (AIP). The purpose of the Study is to determine the type and extent of aviation facilities needed on a County-wide basis through the year 2005. The major objectives of the Study are to prepare updated Airport Layout Plans for the Tonopah, Beatty and Gabbs Airports and to perform site selection studies for new airports in the Pahrump and Amargosa Valleys. Each objective is documented in a separate report. This report contains the findings and recommendations of the Site Selection Study for a County-owned airport in the Pahrump Valley. The location of the Pahrump Valley, in relation to Nye County, is illustrated on Figure 1.

#### ECONOMIC ANALYSIS AND AVIATION FORECASTS

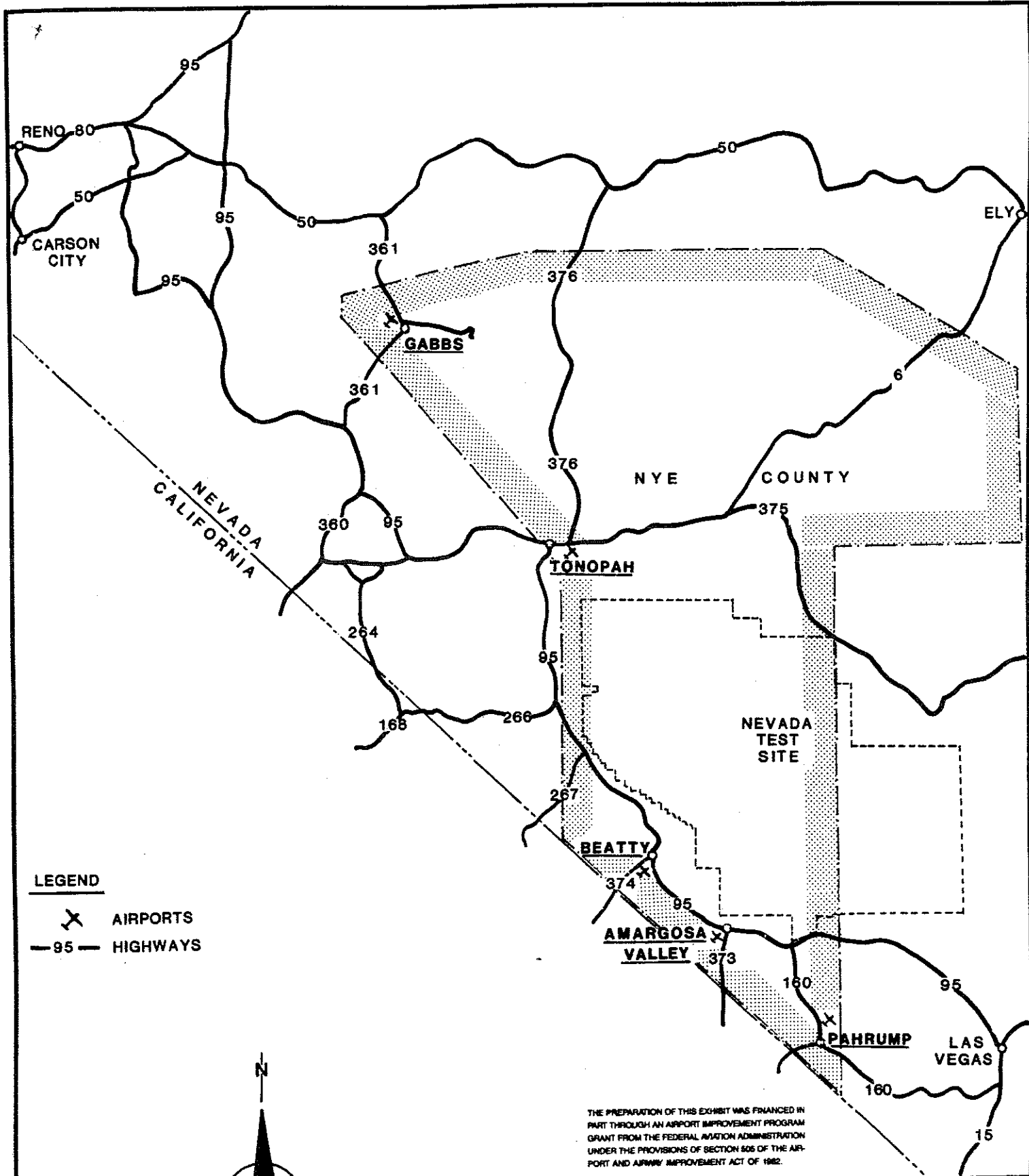
Current development trends in the Valley, including residential, commercial, government services and recreational, and those supporting socioeconomic factors that could impact the demand for aviation facilities and services indicate the need for a County-owned airport in the Pahrump Valley. The airport would serve that portion of Nye County for which it is the most convenient airport. The provision of a safe, efficient and environmentally-compatible airport, attractive facilities, and a high-quality level of general aviation services would make the airport attractive to both based and itinerant aircraft owners and pilots and other potential airport users.

#### AIRPORT REQUIREMENTS

In order to provide a basis for evaluating alternative airport site areas, the physical facilities that will be required to serve potential air traffic requirements in the Pahrump Valley were prepared. For purposes of this Study, long-range (20-year) airport requirements were used as the basis for comparing alternative sites.

#### POTENTIAL AIRPORT SITE AREAS

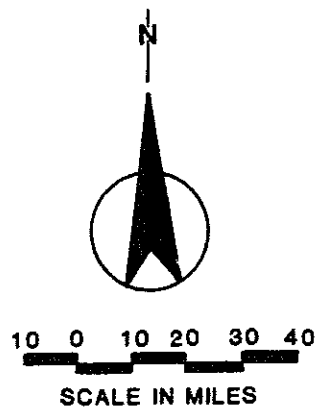
For the site selection process in the Pahrump Valley, the Nye County line is established as a boundary to the east, south and southwest, and the mountains surrounding the Valley determine the boundaries to the north and northwest. The Valley is 26 miles long and 12 miles wide. It is surrounded by the Spring Mountain and Nopah Mountain Ranges. Located at an elevation of



THE PREPARATION OF THIS EXHIBIT WAS FINANCED IN PART THROUGH AN AIRPORT IMPROVEMENT PROGRAM GRANT FROM THE FEDERAL AVIATION ADMINISTRATION UNDER THE PROVISIONS OF SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982.

**Figure 1**  
 NYE COUNTY, NEVADA

**LOCATION MAP**



approximately 2,700 feet above mean sea level (MSL), the Valley encompasses some 364 square miles. The Pahrump Valley is shown on Figure 2.

At the outset of the Study, the Pahrump Town Board was designated by the County Board of Commissioners to play an advisory role in the site selection process. An initial public presentation was made to the Board in February of 1986 to present the preliminary findings of the initial screening of potential airport site areas, a process whereby those areas unsuitable for an airport were then excluded from further consideration. Based on input received at the February public meeting, discussions with Nye County representatives, FAA site selection and planning criteria, and other input, the following two areas illustrated on Figure 3 were selected by the County for further evaluation.

Site A: An area in the northeast part of the Valley, that includes the existing airport owned by Preferred Equities Corporation

Site B: An area in the southwest part of the Valley, south of Gamebird Road and west of Pahrump Valley Boulevard

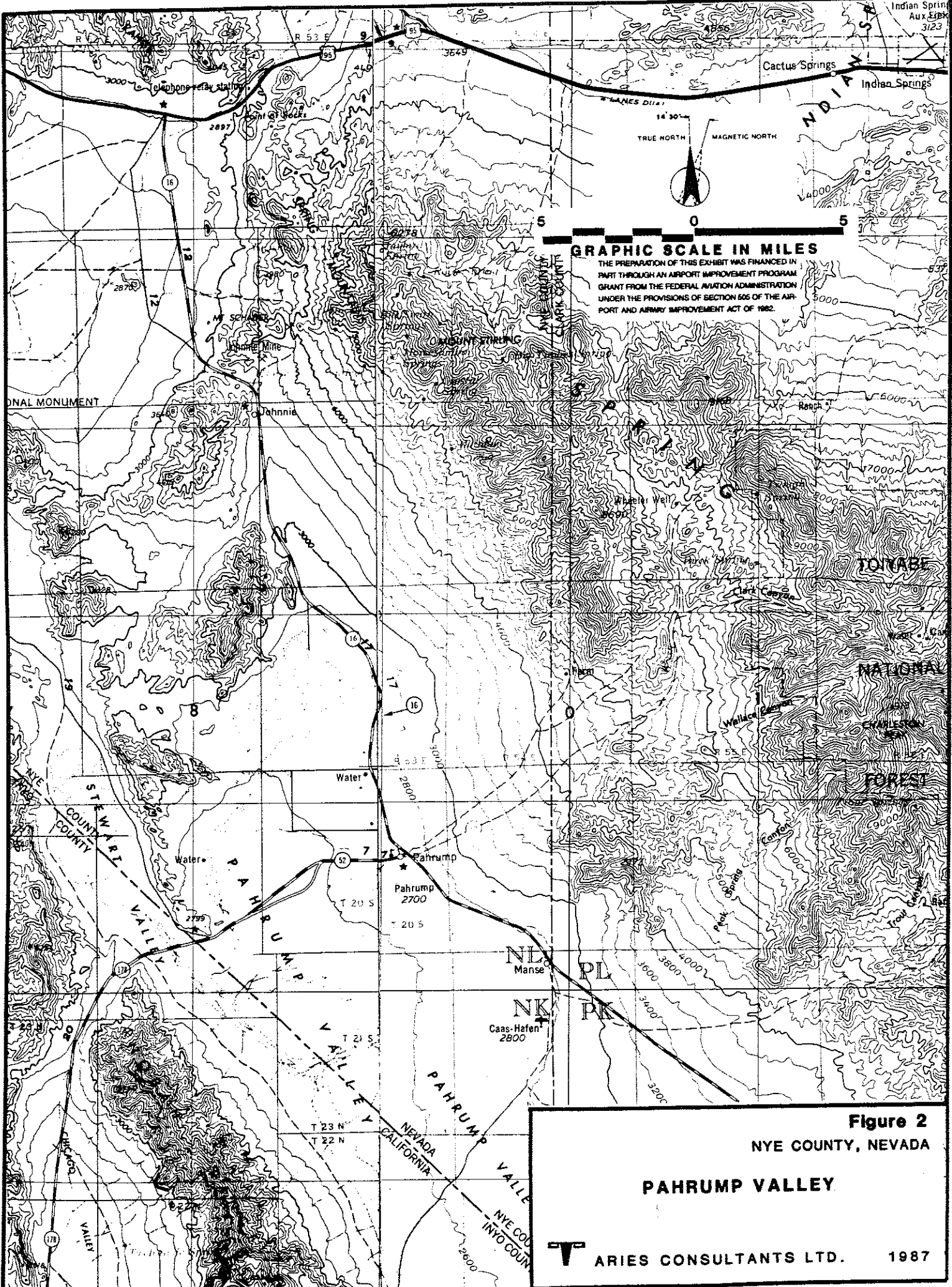
#### EVALUATION OF SELECTED AIRPORT SITE AREAS

The two areas selected as potential airport site areas have been evaluated in more detail on the basis of several FAA evaluation criteria. A comparative analysis of the advantages and disadvantages of each site has been prepared.

The comparative evaluation of the two sites, A and B, was presented at a public meeting of the Pahrump Town Board in May of 1986 and to a public meeting of the Nye County Board of Commissioners in June of 1986. The evaluation was also reviewed with the Nye County staff.

The Pahrump Town Board voted to recommend that Site B be selected as the Airport site. The County selected Site B for the Airport site for which the detailed site layout/master plan would be prepared. Site B, often referred to as the Bureau of Land Management or BLM Site, is the area in the southwest part of the Valley, south of Gamebird Road and west of Pahrump Valley Boulevard.

As a result of input received at both the Pahrump Town Board and Nye County Board of Commissioners public meetings, some refinements were made to the preliminary airport layout for Site B. At the meetings it was suggested that the Airport runway be located as far to the west as feasible so as to minimize any potential for overflights of residential areas southeast of Pahrump Valley Boulevard and Thousandaire Boulevard. A runway alignment addressing this concern was presented at the County Board of Commissioners meeting in June of 1986.



**GRAPHIC SCALE IN MILES**

THE PREPARATION OF THIS EXHIBIT WAS FINANCED IN PART THROUGH AN AIRPORT IMPROVEMENT PROGRAM GRANT FROM THE FEDERAL AVIATION ADMINISTRATION UNDER THE PROVISIONS OF SECTION 506 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982.

**Figure 2**  
**NYE COUNTY, NEVADA**

**PAHRUMP VALLEY**

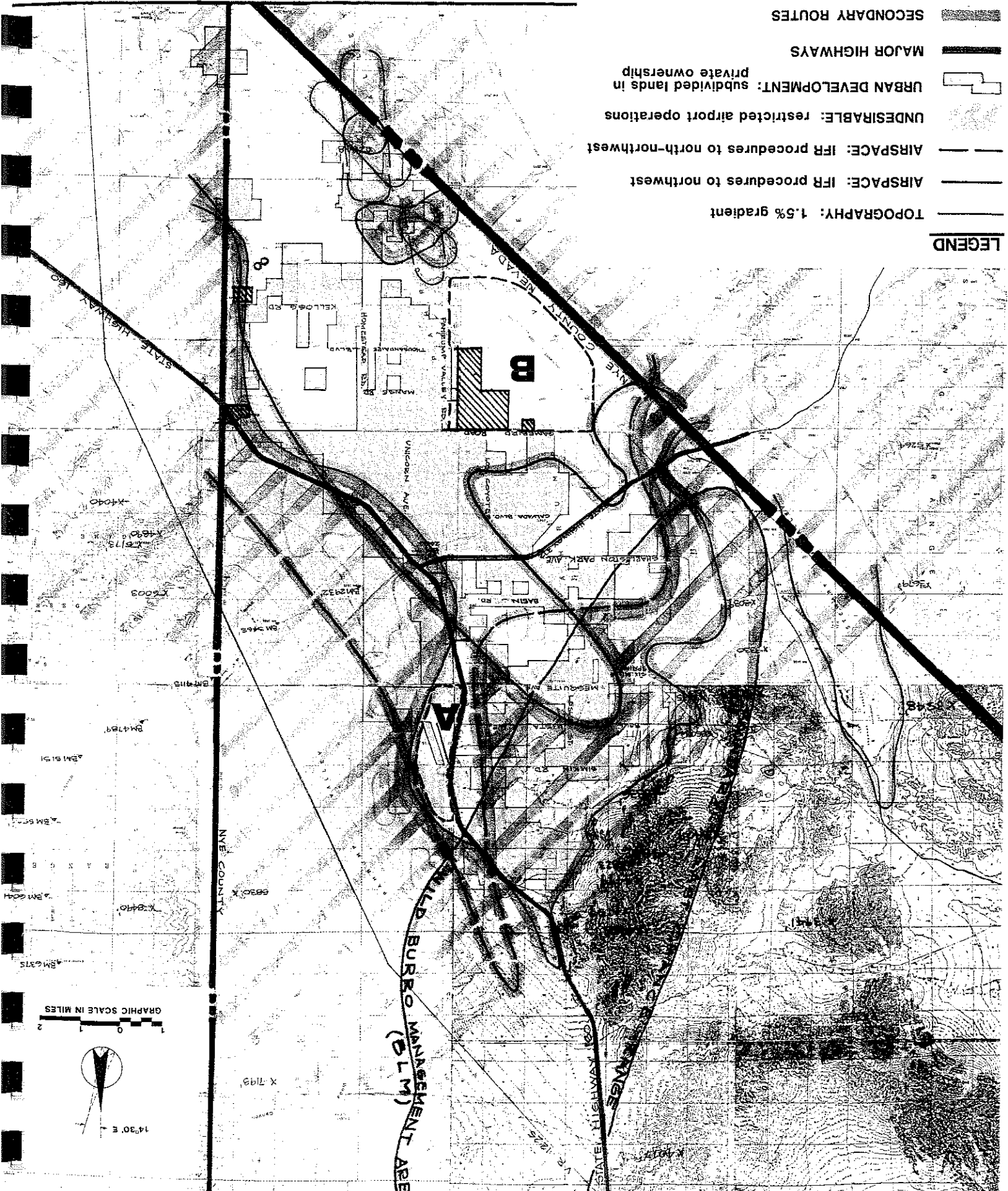
**LEGEND**

- TOPOGRAPHY: 1.5% gradient
- AIRSPACE: IFR procedures to north-west
- AIRSPACE: IFR procedures to north-north-west
- UNDESIRABLE: restricted airport operations
- URBAN DEVELOPMENT: subdivided lands in private ownership
- MAJOR HIGHWAYS
- SECONDARY ROUTES
- ENVIRONMENTAL RECONNAISSANCE: cultural resources
- VR1225
- EXISTING AIRPORT/AIRSTRIP
- POTENTIAL SITE LOCATIONS

MILITARY TRAINING ROUTES: VR = VFR IR = IFR

**PAHRUMP VALLEY AIRPORT**  
**PRELIMINARY SCREENING MAP**  
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 1987

**FIGURE 3**



The refined runway alignment is reflected in the Airport Layout Plan described in this report.

#### AIRPORT LAYOUT PLAN AND MASTER PLAN

A recommended Year 2005 Airport Layout and Master Plan for the Pahrump Valley Airport has been prepared. The Plan integrates long-term airfield and terminal area requirements with forecast aviation demands, airport access and parking needs. It represents a guide for airport development through the year 2005 planning period and indicates possible developments beyond the year 2005 for which land should be reserved at this time.

Recommendations for the use of land adjacent to the Airport boundary to ensure long-term compatibility with airport and aircraft operations are also presented.

#### IMPLEMENTATION PLANS

An overall capital improvement program and staging plan for 1990, 1995 and 2005 has been prepared. This presents the cost estimates associated with individual airport construction items. The potential funding sources for airport development are identified, and a preliminary financial plan for implementing the airport development program has been established including potential revenues and expenses associated with operating the Airport. The potential advantages and disadvantages of alternative forms of airport ownership and management have been evaluated.

#### ENVIRONMENTAL RECONNAISSANCE

Components of both the natural (biological, etc.) as well as human-related (noise, etc.) environmental conditions in the Pahrump Valley Airport Site Selection Study Area have been analyzed and are presented in this report. The Environmental Reconnaissance is intended to serve as the data base upon which the effects of future airport operations on the environment can be projected and impacts/mitigations hypothesized in any required future site-specific documentation. Environmental conditions which may affect airport development and/or operations have been evaluated and presented as pertinent to the level of detail of this analysis.

## Chapter II

### ECONOMIC ANALYSIS AND AVIATION DEMAND FORECASTS

In determining the need for a publicly-owned general aviation airport in the Pahrump Valley, it is necessary to evaluate socioeconomic factors and other indicators of potential future activity in the Valley. These form the basis for developing forecasts of future aviation activity and requirements for airport facilities to support that activity. The forecasts and requirements are then used to plan the geometric layout of the airport and its facilities and to estimate preliminary airport development costs, the environmental effects, and the compatibility of the airport and airport operations with the surrounding existing and planned-for land uses.

Before projecting future airport requirements, it is first necessary to identify those characteristics which will influence future aviation demand in the Pahrump Valley. This chapter outlines those socioeconomic characteristics and identifies the potential volume and type of aviation activity that could be accommodated at an airport. National trends in general aviation were reviewed, and also available historical and forecast data for Nye County and the study area. The Nevada State Air System Plan (NSASP) and the National Plan of Integrated Airport Systems (NPIAS) were also reviewed.

#### SOCIOECONOMIC CHARACTERISTICS

A review of socioeconomic characteristics of Nye County and the Pahrump Valley is helpful in preparing the aviation demand forecasts presented later in this chapter. Because detailed population and employment data are not generally available for the Pahrump Valley, the following analyses must necessarily be defined to include all of Nye County. However, where available, data pertaining specifically to Pahrump Valley has been used. The data have been analyzed for their potential impact on aviation demand. As such, the information presented should not be considered a comprehensive economic analysis of the Pahrump Valley.

##### Population

Nye County covers an area of 18,155 square miles and is the largest Nevada County, and third largest County in the Continental United States. A Special Census completed in 1985 showed the County's total population to be 14,250. Over 80 percent (approximately 11,500) of the population reside in the western portion of the County, with approximately 38 percent of that population concentrated in the Pahrump Valley.

As shown in Table II-1, Nye County has been growing considerably faster than both the State and the United States, particularly over the most recent five-year period. The average annual rate of population growth between 1980 and 1985 for the County was 9.5 percent; for the State of Nevada, 3.9 percent; and for the United States as a whole, 1.0 percent.

The most significant increase in population in Nye County over the past five years appears to be in the Pahrump Valley with a population increase from 1,350 in 1980 to 5,200 in 1985, a 285 percent increase. (There are about 150 people in Crystal.) However, discussions with the preparers of the 1985 Special Census and information published by the Pahrump Valley Economic Development Council, Inc. would indicate the 1980 population of the Pahrump Valley to be 3,300, which represents a 58 percent increase to 1985, or an average annual increase of 9.5 percent. There is no indication of this substantial growth pattern changing in the immediate future. The Special Census conducted by the University of Nevada-Reno for Nye County indicated 38 percent of the population of the western part of the County, and 27 percent of the total County population are in the Pahrump Valley.

#### Employment and Economy

Table II-2 presents the distribution of historical nonagricultural employment in Nye County for 1981, 1982 and 1983. As shown, the economy of Nye County depends largely on the mining and services sector, which combined accounted for approximately 74 percent of the total nonagricultural employment in 1981 and increased to approximately 80 percent in 1982 and 1983. The services sector includes government-related employment at the Nevada Test Site, and although the County's economic base appears to be heavily dependent on the Test Site, according to the State of Nevada, Office of Community Services, many workers at the Test Site are not Nye County residents and some are from out-of-state.

According to the Nye County Master Education Plan prepared in 1984 by the University of Nevada-Reno, the Pahrump Valley has been influenced by military and government activity. Because of the proximity of the Valley to both the Test Site and Las Vegas, a significant number of people choose to live in the Valley and commute. As the population in the Valley continues to expand, diversification of the local economic base is becoming more apparent.

Table II-3 presents a distribution of employment by economic sector for the years 1975 and 1982. A comparison of the two years indicates the diversification of the economic base, particularly in the agricultural sector which has decreased substantially. This decline is due in part to agricultural land being converted to residential uses. Employment in the remaining economic sectors has increased with the exception of the

Table II-1

HISTORICAL AND FORECAST POPULATION TRENDS  
Nye County, State of Nevada and United States  
1960-2005

	Historical			Base Year			Forecast		
	1960	1970	1980	1985	1990	1995	2005	2005	2005
Nye County	4,374 <sup>a</sup>	5,599 <sup>a</sup>	9,048 <sup>a</sup>	14,250 <sup>b</sup>	19,765 <sup>c</sup>	22,514 <sup>c</sup>	25,631 <sup>c</sup>	29,166 <sup>c</sup>	
State of Nevada	285,278 <sup>d</sup>	488,738 <sup>d</sup>	800,493 <sup>d</sup>	970,228 <sup>c</sup>	1,255,687 <sup>c</sup>	1,414,403 <sup>c</sup>	1,587,612 <sup>c</sup>		
United States	179,323,175 <sup>d</sup>	203,302,031 <sup>d</sup>	226,545,805 <sup>d</sup>	237,604,912 <sup>e</sup>	249,203,000 <sup>d</sup>	258,171,000 <sup>e</sup>	267,461,000 <sup>d</sup>	277,087,000 <sup>e</sup>	

	Average Annual Percentage Change		
	1960-1980	1980-1985	1985-1990
Nye County	3.7	9.5	6.8
State of Nevada	5.3	3.9	2.7
United States	1.2	1.0	1.0

- a. Nye County, Nevada Profile, State of Nevada, Office of Community Services, 1985 Editions
- b. Bureau of Business and Economic Research, College of Business Administration, University of Nevada-Reno, Special Census of Nye County, Summary Report, August 1985
- c. Bureau of Business and Economic Research, College of Business Administration, University of Nevada-Reno
- d. Census of Population, U.S. Department of Commerce, Bureau of the Census
- e. Interpolated and Extrapolated by Artes Consultants Ltd.

Table II-2

DISTRIBUTION OF HISTORICAL  
NONAGRICULTURAL EMPLOYMENT  
Nye County, Nevada  
1981-1983

Industry Sector	1981		1982		1983	
	Number	Percent	Number	Percent	Number	Percent
Mining	1,550	19.2%	1,430	16.6%	1,130	13.1%
Construction	420	5.2	160	1.2	110	1.3
Manufacturing	90	1.1	90	1.0	80	0.1
Transportation, communications and utilities	150	1.2	160	1.2	140	1.6
Wholesale and retail trade	500	6.2	480	5.6	440	5.1
Finance, insurance and real estate	320	4.0	170	2.0	150	1.7
Services	4,400	54.6	5,470	63.3	5,820	67.4
Government	660	8.1	670	7.8	760	8.8
Total	8,130	99.6%	8,630	98.7%	8,630	99.1%

Note: Reflects employment by place of work.

Note: Percentages do not add due to rounding.

Source: Nye County Nevada Profile, 1985 Edition.

Table II-3

PERCENT DISTRIBUTION OF EMPLOYMENT  
BY ECONOMIC SECTOR  
Pahrump Valley  
1975 and 1982

<u>Economic Sector</u>	<u>1975</u>	<u>1982</u>
Agriculture	27.92%	3.96%
Construction	4.15	10.68
Manufacturing	0.0	0.92
Mining	0.0	10.77
Wholesale and retail trade	18.49	5.34
Finance, insurance and real estate	0.0	4.14
Transportation, communications and utilities	3.40	7.56
Services	29.81	30.48
Other <sup>1</sup>	<u>16.23</u>	<u>26.15</u>
	100.00%	100.00%

---

1. Education, government and unclassified.

Source: Pahrump Resource Analysis

wholesale and retail trades. Employment in the retail sector appears to be increasing, however.

The location of the Valley, approximately 70 miles northwest of Las Vegas, is making the Valley a more attractive location for residential and industrial development. This is evidenced by both the substantial increase in the population over the past five years and the location of commercial and manufacturing facilities in the Valley in recent months. Approximately 43,000 residential lots have been created in the Valley, and approximately 4.5 percent (2,000) have been developed. According to the Pahrump Valley Chamber of Commerce, there were an estimated 300 local businesses in the Valley in 1985. This continuing diversification will provide a stronger economic base in the Pahrump Valley in future years.

#### GENERAL AVIATION TRENDS AND EXISTING FORECASTS

General aviation includes all civil flying except that of scheduled and nonscheduled service of certificated airlines, commuter air taxis and military aviation. It includes many activities ranging from transportation of personnel and cargo by business firms in privately-owned aircraft to recreational flying, and specialized activities such as the provision of air ambulance service, aerial photography, police patrol and fire control. General aviation also includes agricultural, industrial, private business, air charter, and federal, State, and local government aviation.

Historical data on general aviation activity at airports in Nye County are limited, as is the case at most airports without control towers. Therefore, related available data were used in developing the aviation demand forecasts for an airport in Pahrump Valley. General aviation trends on a national level were reviewed; and applicable information and data from the NPIAS (federal) and NSASP (State) aviation system plans are included. Data on historical aircraft registrations in Nye County are also presented.

#### National Trends in General Aviation

Basic indicators of historical and forecast general aviation growth at the national level are presented in Table II-4. As shown, the total number of active general aviation aircraft in the nation are forecast to increase by 27 percent from 213,300 in 1984 to 270,500 in 1996, or an average annual increase of 2.0 percent.

Single-engine aircraft, which are forecast to account for 73 percent of the estimated active general aviation aircraft in 1996, are expected to increase at a more moderate rate of 1.4 percent per year from 1984 through 1996. This moderate increase is due in part to the increased costs of owning and operating

Table II-4

**ESTIMATED ACTIVE GENERAL AVIATION  
AIRCRAFT BY TYPE OF AIRCRAFT<sup>1,2</sup>**  
(thousands)

	Fixed Wing					Rotorcraft			Balloons/ Dirigibles/ Gliders
	Piston		Turbo- prop	Turbo- jet	Piston	Turbine			
	Single- Engine	Multi- Engine							
<u>Historical</u> <sup>3</sup>	<u>Total</u>								
1980	210.3	168.4	25.1	3.5	2.7	3.1	2.7	4.8	
1981	211.0	168.4	24.6	4.1	3.0	2.8	3.2	4.9	
1982	213.2	167.9	25.5	4.7	3.2	3.3	3.7	5.2	
1983	209.8	164.2	25.0	5.2	4.0	2.4	3.7	5.2	
1984	213.3	166.4	25.1	5.5	3.9	2.5	4.0	5.9	
<u>Forecast</u>									
1985	210.2	161.9	25.1	6.0	4.2	2.4	4.5	6.1	
1986	214.5	164.0	25.6	6.6	4.6	2.4	4.9	6.4	
1987	218.9	166.1	26.5	7.1	4.9	2.3	5.3	6.7	
1988	223.6	168.4	27.5	7.6	5.2	2.3	5.6	7.0	
1989	228.7	170.8	28.8	8.1	5.5	2.3	5.9	7.3	
1990	235.0	174.8	29.6	8.6	5.7	2.3	6.3	7.7	
1991	241.9	179.6	30.5	9.1	5.9	2.2	6.6	8.0	
1992	249.0	184.2	31.4	9.6	6.2	2.2	7.1	8.3	
1993	255.7	188.8	32.2	10.1	6.5	2.1	7.4	8.6	
1994	261.7	192.5	33.0	10.5	6.7	2.1	8.0	8.9	
1995	266.8	195.6	33.7	10.9	6.9	2.1	8.3	9.3	
1996	270.5	197.4	34.4	11.4	7.1	2.0	8.6	9.6	

1. An active aircraft must have a current registration and it must have been flown at least one hour during the previous calendar year.

2. Includes commuter aircraft.

3. FAA Statistical Handbook of Aviation.

Note: Detail may not add to total because of independent rounding.

Source: FAA Aviation Forecasts, Fiscal Years 1985-1996

conventional aircraft and the continuing decline in the numbers of student and private pilots.

Multiengine piston aircraft are forecast to increase at an average annual rate of 2.7 percent through 1996; turboprop aircraft at 6.3 percent; and turbojet aircraft at 5.1 percent, emphasizing the increasing use of aircraft for business and corporate flying. All other aircraft including rotorcraft, balloons, gliders and ultralights are forecast to increase at an average annual rate of 4.2 percent.

#### National Plan of Integrated Airport Systems

The National Plan of Integrated Airport Systems (NPIAS) report was published in August 1985 and was designed by the U.S. Department of Transportation, Federal Aviation Administration, to estimate the costs of airport development associated with establishing a system of U.S. airports to meet and anticipate the needs of civil aviation and support the Department of Defense and Postal Service. The NPIAS is structured to provide each community with access to a safe and adequate airport.

The NPIAS includes Pahrump as a new public general aviation airport within the first five-year planning period (through 1988). Forecasts of based aircraft and total aircraft operations were prepared for Pahrump as part of the NPIAS. There are nine based aircraft forecast for the first five-year planning period (through 1988). Total 1988 aircraft operations are forecast at 6,000 annually with 50 percent of the total operations (3,000) forecast as itinerant.

Over the ten-year planning period (through 1993) twelve based aircraft are forecast with a total of 7,000 aircraft operations per year. Of the total aircraft operations, 57 percent (4,000) have been forecast as itinerant.

#### Nevada State Air System Plan

The Nevada State Air System Plan (NSASP) was published by the Nevada Department of Transportation, Planning Division, in 1983. A major goal of the plan is to provide for the orderly and timely development of a system of airports which will meet the aeronautical and air transportation needs of Nevada for the period 1980-2000 and which will be compatible with the National Plan of Integrated Airport Systems and local planning activities. The NSASP emphasizes that because of the large geographic area of the State and the small population of rural Nevada, concerted efforts must be made to provide an adequate public air transportation system for all the citizens, including those outside of the two major metropolitan areas of Las Vegas and Reno.

According to the NSASP, the overall decline in general aviation in recent years has not been apparent in the State of Nevada as based aircraft have surpassed previous forecasts. Although the

number of pilots per 1,000 population has been decreasing, the geographic size of the State and its affluence will maintain aviation as a valued form of transportation.

Nevada general aviation airports are unique for their utilization as origins and destinations for itinerant aircraft. Approximately 70 percent of general aviation flights in the State are itinerant operations, while on a national level, the average is only 45 percent. This factor indicates the importance of general aviation as a major mode of transportation to, from, and in Nevada.

A Pahrump Valley Airport is included in the NSASP. Based aircraft over the planning period are forecast to increase from six in 1980, to 18 in 1990, and to 35 in 2000.

Aircraft operations over the planning period are forecast to increase from an estimated 4,500 in 1980 to 8,000 in 1990, and to 17,000 in 2000.

#### Historical Aircraft Registrations: Nye County

According to the NSASP, the mobility of aircraft and attractive taxing policies of Nevada have meant more aircraft units are registered within Nevada than are based here. In 1980, 3,169 aircraft were registered in Nevada as opposed to 1,978 aircraft actually based in the State. This would indicate that approximately 62 percent of the aircraft registered in the State are actually based here.

Although actual statistics of general aviation based aircraft are not available for the County, the historical growth in the number of general aviation aircraft registrations in the County are reported in the Federal Aviation Administration's "Census of U.S. Civil Aircraft," and are presented in Table II-5.

The total number of registrations increased from 26 in 1970 to 64 in 1984, representing an average annual increase of 6.7 percent. The most significant annual increase has been over the most recent four-year period, averaging 9.2 percent.

The number of aircraft registrations in the single-engine category increased from 24 in 1970 to 52 in 1984, an average annual increase of 5.7 percent. The single-engine share of total registrations declined from 92 percent in 1970 to 81 percent in 1984. Registrations in the multiengine piston category increased from one to eight between 1970 and 1984, an average annual increase of 16 percent. The multiengine piston share of total registrations increased from 4 percent to 13 percent over the period. The number of registered turboprop aircraft in 1984 was four compared to one in each of the previous five years.

Table II-5

**HISTORICAL AIRCRAFT REGISTRATIONS IN NYE COUNTY  
1970-1984**

Year	Fixed Wing						Total
	Piston		Turbo- prop	Turbo- jet	Roto- craft	All Other	
	Single- Engine	Multi- Engine					
1970	24	1	-0-	-0-	-0-	1	26
1971	21	3	-0-	-0-	-0-	1	25
1972	33	3	-0-	-0-	1	4	41
1973	25	2	-0-	-0-	1	2	30
1974	20	4	-0-	-0-	-0-	1	25
1975	31	4	-0-	-0-	2	-0-	37
1976	34	6	-0-	-0-	1	-0-	41
1977	29	3	-0-	-0-	-0-	-0-	32
1978	37	4	-0-	-0-	-0-	1	42
1979	37	3	1	-0-	-0-	1	42
1980	39	4	1	-0-	-0-	-0-	45
1981	35	6	1	-0-	-0-	-0-	42
1982	39	7	1	-0-	-0-	-0-	47
1983	47	9	1	-0-	-0-	-0-	57
1984	52	8	4	-0-	-0-	-0-	64

Note: Data from "Census of U.S. Civil Aircraft" are not strictly comparable. Data for 1972 through 1976 are total registered general aviation aircraft based on aircraft owners' residence. Data for 1977 through 1984 are total active (registered aircraft that flew one or more hours) general aviation aircraft based on where the aircraft is actually based. The resultant statistical discrepancy is probably minor, but unknown.

Source: Federal Aviation Administration, "Census of U.S. Civil Aircraft," Calendar Years 1970-1984.

## AVIATION DEMAND FORECASTS

According to the Pahrump Valley Economic Development Council, Inc., continuing efforts are being made to promote the Valley's economic development, not only for clean, environmentally-responsive business and industry, but also for residential and commercial development, which will build and support the diversified economic base of the Valley mentioned earlier in this chapter.

The promotion of tourist/recreational packages to include camping, hunting, rodeos and golf, and the proximity of the Valley to the Death Valley National Monument; the U.S. Fish and Wildlife Service Ash Meadows Wildlife Refuge; Las Vegas; and other area attractions will also play an important role in furthering the growth and support of the tourism/recreational economic base in the Valley. The construction of a new road from the Pahrump Valley to the Amargosa Valley will provide not only the most scenic, but also the shortest route between Las Vegas and the Death Valley National Monument and the new Ash Meadows Wildlife Refuge.

Growth in the population and economy in the Pahrump Valley over the past five years has been substantial. According to the University of Nevada-Reno, Research and Education Planning Center, this growth is forecast to continue, and with the generation of more people will come additional employment and further opportunities. All of the socioeconomic factors that are presented herein will exert varying degrees of influence on the demand for aviation services and facilities in the Valley.

Forecasts of aviation demand provide a basis for determining the types of facilities needed at an airport and the extent of development required in future years. The forecasts presented in Table II-6 are for the twenty-year period through the year 2005. A comparison of the available forecasts for both general aviation based aircraft and aircraft operations at an airport in the Pahrump Valley are presented on Figures 4 and 5. Because of the uncertainties surrounding the factors that influence aviation, long-term forecasting is approximate in nature; however, it is important to consider a long-term horizon when planning for an airport.

The aviation demand forecasts were prepared on the basis of the information presented in the text. The achievement of any forecast may be affected by fluctuating economic conditions and is dependent upon the occurrence of other future events which cannot be assured. Therefore, the actual results achieved may vary from the forecasts, and such variations could be material.

### General Aviation Based Aircraft

As shown in Table II-6, the total number of aircraft based at a Pahrump Valley Airport is forecast to be 15 by 1990; 25 by 1995 and 40 by 2005. Multiengine based aircraft are forecast to

Table II-6

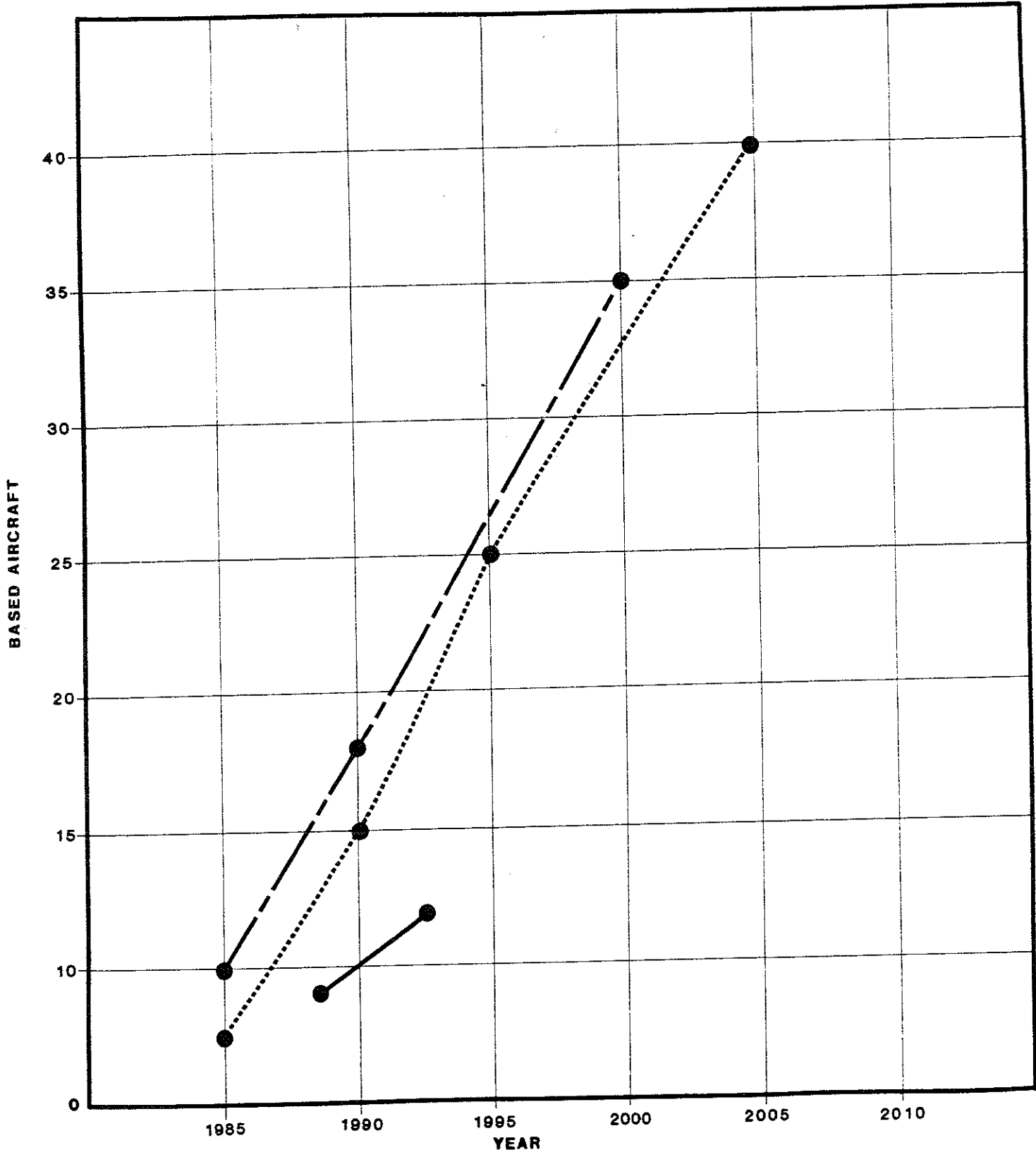
**AVIATION DEMAND FORECASTS**  
**Pahrump Valley Airport**  
**1985-2005**

	Existing <sup>a</sup>	Forecast		
	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2005</u>
<u>Based aircraft</u>				
Single-engine	5	12	18	28
Multiengine	<u>2</u>	<u>3</u>	<u>7</u>	<u>12</u>
Total	7	15	25	40
<u>Aircraft operations</u>				
Itinerant	1,500	5,000	10,000	18,000
Local	<u>500</u>	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>
Total	2,000	6,000	12,000	22,000

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a. Estimated

Source: Aries Consultants Ltd.




**LEGEND**

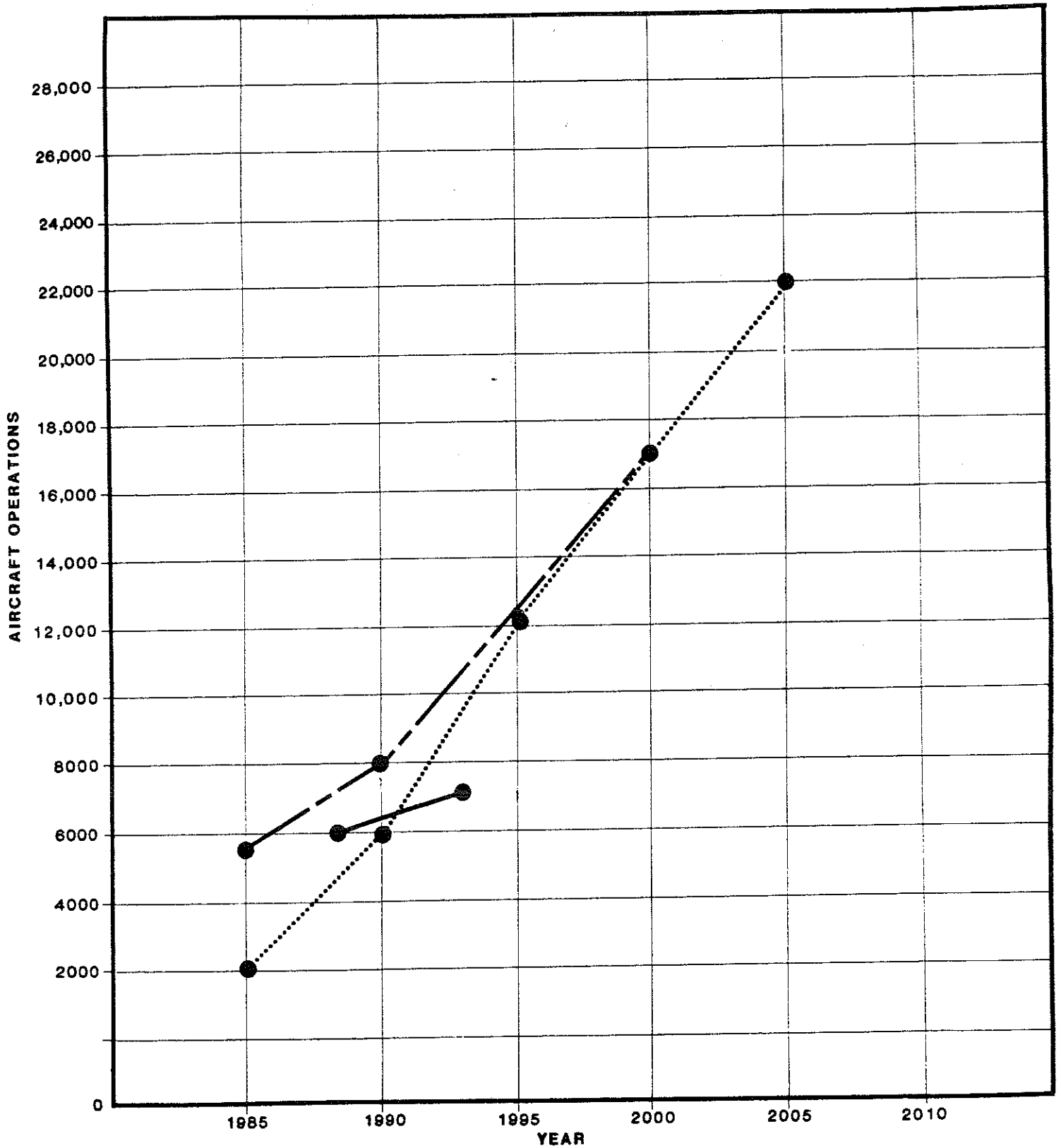
- NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS
- - - NEVADA STATE AIR SYSTEM PLAN
- ..... ARIES CONSULTANTS LTD.

**Figure 4**

PAHRUMP VALLEY AIRPORT      NYE COUNTY, NEVADA

**BASED AIRCRAFT**


**ARIES CONSULTANTS LTD. 1987**




**LEGEND**

- NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS
- - - NEVADA STATE AIR SYSTEM PLAN
- ..... ARIES CONSULTANTS LTD.

**Figure 5**

PAHRUMP VALLEY AIRPORT      NYE COUNTY, NEVADA

**AIRCRAFT OPERATIONS**


**ARIES CONSULTANTS LTD. 1987**

increase from 2 in 1985 to 12 by 2005, and single-engine based aircraft are forecast to increase from 5 in 1985 to 28 by the year 2005.

#### General Aviation Aircraft Operations

Total annual aircraft operations are forecast to increase from an estimated 6,000 in 1990 to 22,000 in 2005. Itinerant operations are forecast to account for the greatest share of all operations in the future. By 1990, 5,000 itinerant operations are forecast (83 percent of the total), and 1,000 (17 percent) local operations are forecast. By 2005, 18,000 itinerant operations are forecast (82 percent of the total), and 4,000 (18 percent) local operations are forecast.