SPONSOR’S CERTIFICATION

The Noise Exposure Maps for McClellan-Palomar Airport, hereby submitted in accordance with 14 CFR Part 150, were prepared with the best available information and are certified as true and complete to the best of my knowledge and belief. The assumptions and activity levels used to develop the Existing Condition Noise Exposure Map are based on data from 2002. The most recent 12-month period of available data, calendar year 2004, represents an approximate two percent increase in annual average daily operations relative to the data period used for the 2004 Existing Condition Noise Exposure Map. Thus, the data for the 2004 Existing Condition Noise Exposure Map are representative of existing conditions, as of the date of this submission.

The assumptions and activity levels used to develop the 2009 Noise Exposure Map representing the 5-year future condition are based on reasonable forecasts and other planning assumptions, and the map is for the fifth calendar year after the year of submission.

The Noise Exposure Maps were prepared in consultation with state and public agencies and planning agencies whose area, or any portion of whose area, of jurisdiction is within the 65 dBA Community Noise Equivalent Level contours depicted on the Noise Exposure Maps. The consultation also included federal officials having local responsibility and regular aeronautical users of the airport. It is further certified that adequate opportunity has been afforded interested persons to submit their views, data and comments concerning the correctness and adequacy of the Noise Exposure Maps and the supporting documentation and forecasts. The 2004 Noise Exposure Map and supporting data are fair and reasonable representations of existing conditions at McClellan-Palomar Airport.

Date of Signature: 2/11/05

Pete Drinkwater
Airport Director
County of San Diego
Department of Public Works
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<th>Description</th>
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<tr>
<td>AEE</td>
<td>Office of Environmental Energy</td>
</tr>
<tr>
<td>AIA</td>
<td>Airport Influence Area</td>
</tr>
<tr>
<td>AIM</td>
<td>Aeronautical Information Manual</td>
</tr>
<tr>
<td>AIP</td>
<td>Airport Improvement Program</td>
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<tr>
<td>ALP</td>
<td>Airport Layout Plan</td>
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<tr>
<td>ALPA</td>
<td>Airline Pilots Association</td>
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<td>ANCA</td>
<td>Aviation Noise and Capacity Act</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
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<tr>
<td>AOPA</td>
<td>Aircraft Owners and Pilots Association</td>
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<tr>
<td>ARTCC</td>
<td>Air Route Traffic Control Centers</td>
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<tr>
<td>ASDA</td>
<td>Available Accelerated Stop Distance</td>
</tr>
<tr>
<td>ASNA</td>
<td>Aviation Safety and Noise Abatement Act</td>
</tr>
<tr>
<td>ASOS</td>
<td>Automated Surface Observation System</td>
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<tr>
<td>ATC</td>
<td>Air Traffic Control</td>
</tr>
<tr>
<td>ATCT</td>
<td>Airport Traffic Control Tower</td>
</tr>
<tr>
<td>CCR</td>
<td>California Code of Regulations</td>
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<tr>
<td>CLUP</td>
<td>Comprehensive Land Use Plan</td>
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<td>CNEL</td>
<td>Community Noise Equivalent Level</td>
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<td>CRQ</td>
<td>McClellan-Palomar Airport</td>
</tr>
<tr>
<td>CUP</td>
<td>Conditional Use Permit</td>
</tr>
<tr>
<td>CY</td>
<td>Calendar Year</td>
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<tr>
<td>dBA</td>
<td>A-weighted decibels</td>
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<tr>
<td>DME</td>
<td>Distance Measuring Equipment</td>
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<tr>
<td>DNL</td>
<td>Day-Night Average Sound Level</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
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<td>Federal Aviation Regulations</td>
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<td>Fixed Base Operators</td>
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<td>FICAN</td>
<td>Federal Interagency Committee on Aviation Noise</td>
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<td>FICON</td>
<td>Federal Interagency Committee on Noise</td>
</tr>
<tr>
<td>FICUN</td>
<td>Federal Interagency Committee on Urban Noise</td>
</tr>
<tr>
<td>FOIA</td>
<td>Freedom on Information Act</td>
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<tr>
<td>GA</td>
<td>General Aviation</td>
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<tr>
<td>GEMS</td>
<td>Global Environmental Management System</td>
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<td>GPS</td>
<td>Global Positioning System</td>
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<tr>
<td>HUD</td>
<td>Department of Housing and Urban Development</td>
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<td>Hz</td>
<td>Hertz</td>
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<tr>
<td>IFR</td>
<td>Instrument Flight Rules</td>
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<td>ILS</td>
<td>Instrument Landing System</td>
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<tr>
<td>INM</td>
<td>Integrated Noise Model</td>
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<tr>
<td>LC</td>
<td>Limited Control</td>
</tr>
<tr>
<td>LDA</td>
<td>Available Landing Distance</td>
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<tr>
<td>Lmax</td>
<td>Maximum Sound Level</td>
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<tr>
<td>MALS-R</td>
<td>Medium Density Approach Lighting System</td>
</tr>
<tr>
<td>MCAS</td>
<td>Marine Corps Air Station</td>
</tr>
<tr>
<td>Acronym</td>
<td>Abbreviation</td>
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<tr>
<td>MSL</td>
<td>Mean sea level</td>
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<tr>
<td>NAS</td>
<td>National Airspace System</td>
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<tr>
<td>Navaids</td>
<td>Navigation Aids</td>
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<tr>
<td>NBAA</td>
<td>National Business Aircraft Assoc</td>
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<tr>
<td>NCDC</td>
<td>National Climactic Data Center</td>
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<tr>
<td>NCP</td>
<td>Noise Compatibility Program</td>
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<td>NDB</td>
<td>Non Directional Beacon</td>
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<td>NEM</td>
<td>Noise Exposure Map</td>
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<tr>
<td>NHRP</td>
<td>National Register of Historic Pls</td>
</tr>
<tr>
<td>NINA</td>
<td>Noise Impact Notification Area</td>
</tr>
<tr>
<td>NLR</td>
<td>Noise Level Reduction</td>
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<tr>
<td>NOAA</td>
<td>National Oceanographic and Atmos Administration</td>
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<tr>
<td>NPIAS</td>
<td>National Plan of Integrated Airport Systems</td>
</tr>
<tr>
<td>OAG</td>
<td>Official Airline Guide</td>
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<tr>
<td>OS</td>
<td>Open Space</td>
</tr>
<tr>
<td>PAAC</td>
<td>Palomar Airport Advisory Committee</td>
</tr>
<tr>
<td>SANDAG</td>
<td>San Diego Association of Governments</td>
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<tr>
<td>SDCRAA</td>
<td>San Diego County Regional Airport Authority</td>
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<tr>
<td>SEL</td>
<td>Sound Exposure Level</td>
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<tr>
<td>SLUCM</td>
<td>Standard Land Use Coding Manual</td>
</tr>
<tr>
<td>SPL</td>
<td>Sound Pressure Level</td>
</tr>
<tr>
<td>sq ft</td>
<td>Square feet</td>
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<tr>
<td>TACAN</td>
<td>Tactical Air Navigation</td>
</tr>
<tr>
<td>TNG</td>
<td>Touch and Go</td>
</tr>
<tr>
<td>TODA</td>
<td>Available Takeoff Distance</td>
</tr>
<tr>
<td>TORA</td>
<td>Available Takeoff Run</td>
</tr>
<tr>
<td>TRACON</td>
<td>Terminal Radar Approach Control</td>
</tr>
<tr>
<td>UA</td>
<td>Unplanned Areas</td>
</tr>
<tr>
<td>URS</td>
<td>URS Corporation</td>
</tr>
<tr>
<td>VA</td>
<td>Veterans Affairs</td>
</tr>
<tr>
<td>VFR</td>
<td>Visual Flight Rules</td>
</tr>
<tr>
<td>VHF</td>
<td>Very High Frequency</td>
</tr>
<tr>
<td>VOR</td>
<td>VHF Omni-Directional Range</td>
</tr>
<tr>
<td>VORTAC</td>
<td>VHF Omni-Directional Beacon</td>
</tr>
</tbody>
</table>
SECTION ONE

SECTION 1  INTRODUCTION

Aircraft noise and the subsequent impacts on people have been a major concern in the United States and worldwide for some time. With the general trend of increasing activity at airports, it is important for airport operators to be aware of the noise exposure or potential future impacts caused by aircraft activity at their facilities. The airport operator has a responsibility to help educate the public and possibly mitigate noise exposure around the airport. Local communities surrounding the airport have an equal responsibility to educate their constituents, develop and implement adequate land use planning and land use controls, and adopt regulatory measures to ensure that long-term aviation noise exposure are minimized in their jurisdictions. At most airports, noise exposure will continue to increase, making it imperative that local governments and the respective airports work together to develop acceptable noise mitigation solutions that satisfy all parties. In many cases, this cooperative effort has a positive impact on the community perception and confidence in their local leaders that the noise issues are being addressed in best interest of all concerned parties.

A Part 150 Study is a voluntary effort by an airport to achieve the greatest possible compatibility and facilitate the best possible relationship between an airport and its surrounding communities. Part 150 specifies the methodology and procedures governing the development and implementation of the two major components: Noise Exposure Maps (NEMs) and Noise Compatibility Programs (NCP)

This report presents the NEMs for McClellan-Palomar Airport (CRQ). This section contains a description of the Part 150 process (Section 1.1), a description of NEM documentation (Section 1.2), status of the previous Part 150 Study (Section 1.3), and the roles and responsibilities of the Study’s parties. Section 2 provides a history and description of the airport, a description of the local climate, and a description of the airspace and air traffic control. Section 3 presents a description of the aircraft noise exposure methodology. Section 4 presents a discussion of local land use planning and regulatory framework within the study area. Sections 5, 6, and 7 present the NEMs for 2004, 2009, and 2014, respectively, along with supporting air traffic activity data and forecasts. Section 8 contains a discussion on the consultation with the public, airports users, and outside agencies. Section 9 provides a list of the Study’s references. Appendix A is the FAA’s NEM checklist completed specifically for this Part 150 Study Update.

1.1  THE PART 150 PROCESS

The Aviation Safety and Noise Abatement Act (ASNA) was established by Congress in 1979 as a means to address the impact of aircraft noise on communities, to provide assistance, and to assure continued safety in aviation. Under ASNA, the Secretary of Transportation was charged with the responsibility to establish a single system of measuring noise at airports, determine noise exposure, and identify compatible land uses. Thus, in 1981, the FAA established Part 150 Airport Noise Compatibility Planning.

Part 150 implements the provisions in the ASNA for airport noise compatibility planning. The program provides a comprehensive approach to both prevention and mitigation of airport noise in a community, seeks recommendations from interested parties throughout the development of the program, and provides for funding of eligible items through the Federal Airport Improvement Program (AIP).
SECTION ONE

Introduction

Through the ASNA, airport operators voluntarily prepare airport NEMs and NCPs and submit these materials to the FAA for approval. Federal funding is available to the Airport Sponsor to conduct this work. The NEM depicts noise exposure around an airport in the current and 5-year future operational conditions. The five-year map must be based on forecast operations at the airport for the fifth calendar year beginning after the year of submission, or must be representative of the five-year forecast conditions. Based on the NEM, an NCP is prepared that sets forth a series of measures to reduce existing non-compatible land uses and minimize additional non-compatible land uses on and around the airport. These measures may include both airport and aircraft operational measures that are intended to directly reduce noise. Land use measures may be implemented to mitigate existing non-compatible land uses and prevent the creation of additional non-compatible land uses.

In addition to minimizing aviation noise impacts, this regulation sets forth the Community Noise Equivalent (sound) Level, abbreviated as CNEIL, for measuring noise exposure\(^1\) and the Integrated Noise Model (INM) as the standard noise modeling methodology.

Under the Part 150 process, the FAA will indicate, upon receipt, whether the NEMs are in compliance with the requirements of the program. If they are in compliance, a notice is published in the Federal Register. Once the NEMs are found to be in compliance and the NCP is submitted to the FAA, the NCP will undergo a 180-day FAA review period, and the FAA will determine which elements of the program will be approved or disapproved.

1.2 NOISE EXPOSURE MAP DOCUMENTATION

This report contains the NEMs for CRQ. The NEMs contained in this report represent a revision to the CRQ NEMs that were determined by the FAA to be in compliance with Part 150 on December 20, 1991. Part 150, §150.21 requires the submission of two maps, an existing condition map and a five-year map. In accordance with §150.21, the existing condition map must be based on current data as of the year of submission to the FAA, or must be representative of existing conditions. This NEM document was submitted during the second quarter of 2004. The 2004 Existing Condition NEM was based on average annual daily aircraft operations during calendar year (CY) 2002. As the bulk of the analysis performed to generate the 2004 Existing Condition NEM was performed in 2003, CY2002 data was used. As stated in the Sponsor’s Certification, the CY2004 number of annual average daily operations only differs by two percent relative to the CY2002 annual average daily operations. Due to this negligible difference in annual average daily operations and because the types of operations, aircraft, and overall mission of the airport has not significantly changed between CY2002 and CY2004, the County of San Diego (County) has certified that aircraft operations during CY2002 are representative of 2004, thus the 2004 Existing Condition NEM is expected to accurately represent the existing conditions as of the date of submission.

The five-year map must be based on forecast operations at the airport for the fifth calendar year beginning after the year of submission, or must be representative of five-year forecast conditions. The 2009 Future Condition NEM was based on forecast operations at the airport for CY 2009. The forecast map developed for CY 2009, referred to as the 2009 Future Condition NEM, accurately represents the five-year forecast from the year of submission (2004 + 5 = 2009).

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\(^1\) According to FAA Order 5050.4A, Airport Environmental Handbook, CNEIL may be used in place of DNL in California.
Although not required by the FAA, the County requested that URS Corporation (URS) also develop a ten-year map, i.e., based on forecast operations at the airport for the tenth CY beginning after the year of submission. The 2014 Future Condition NEM was based on forecast operations at the airport for CY 2014.

1.3 PROJECT ROLES AND RESPONSIBILITIES

The control of aircraft noise exposure is a complex issue, with several parties sharing in the responsibility: the federal government, state and local governments and planning agencies, the airport operator, civilian and military airport users, and local residents. All interests must be considered in the noise compatibility process. Groups having roles in this Part 150 process are described below.

1.3.1 Federal

The federal government has assumed the role of coordinator and regulator of the nation’s aviation system. Congress has assigned administrative authority of the FAA. The specific responsibilities of the FAA include:

- The regulation of air commerce in order to promote its development and safety and to fulfill the requirements of national defense;
- The promotion, encouragement and development of civil aeronautics;
- The control of the use of navigable airspace and the regulation of civil and military aircraft operations to promote the safety and efficiency of both; and
- The development and operation of a common system of air traffic control for both military and civilian aircraft.

As part of the Part 150 process, the FAA Western Pacific Region Airports Division located in Hawthorne, California, has the responsibility to review the NEM and related documentation and indicate whether they are in compliance with applicable requirements. The FAA publishes a notice of compliance for each NEM and related documentation in the Federal Register. Acceptance of NEMs by the FAA is required prior to approval of the NCP.

The FAA is responsible for the control of navigable airspace and operation of air traffic control systems at the nation’s airports. Airport proprietors have no direct control over airspace management and air traffic control including the movement of air traffic on the ground at the airport. The FAA reviews any proposed changes in flight procedures, such as flight tracks or runway use programs proposed for noise abatement on the basis of safety of flight operations, efficient use of navigable airspace, management and control of the national airspace and traffic control systems, affect on security, and compliance with applicable laws and regulations.

1.3.2 State of California

The State of California (State) does not have administrative responsibility in the Part 150 process. However, through California Code of Regulation (CCR) Title 21, the State has recognized the effects of noise in the vicinity of airports and developed regulations to provide a positive basis to accomplish
resolution of existing noise problems in communities surrounding airports and to prevent the development of new noise problems. The regulations establish a quantitative framework within which airport operators, aircraft operators, and local communities can work together to reduce noise and prevent airport problems.

1.3.3 County of San Diego

The County owns and operates CRQ as a public utility. As the ‘airport operator,’ the County has responsibility of the entire Part 150 Study Update. The Palomar Airport Advisory Committee (PAAC) has been designated as the citizen’s review committee for this study.

1.3.4 Consulting Team

The County retained the consultant team of URS Corporation (URS) and Katz and Associates in December 2002, to prepare the Part 150 Study Update. URS provides airport environmental planning services, and has overall responsibility for the technical elements, documentation, and project management. Katz and Associates, a public affairs consulting firm, has responsibility for all aspects of public involvement.
SECTION 2  AIRPORT SETTING

Figure 2-1 shows the vicinity of CRQ. CRQ is located within the corporate limits of the City of Carlsbad (City), approximately four miles southeast of downtown Carlsbad, in San Diego County, California. Palomar Airport Road bounds the airport to the south. El Camino Real bisects airport property and serves as a landmark to the east of the airport. With 255 acres owned and operated by the County, CRQ serves as a major general aviation facility for the North County region. The airport is named for aviator Gerald McClellan, a north County community leader. Figure 2-1 also depicts the schools, hospitals and places of worship in the vicinity of CRQ along with the Noise Impact Notification Area (NINA) and the Airport Influence Area (AIA). The NINA and the AIA are discussed in Section 4.

The airport site was acquired in 1957 as a replacement for Del Mar Airport. CRQ opened in 1959 with a runway 3,700 feet in length and 100 feet in width. The runway was later expanded to 4,700 feet in length and 150 feet in width in 1961. Since 1973, an FAA Airport Traffic Control Tower (ATCT) has been in daily operation from 7:00 a.m. to 10:00 p.m. The airport was annexed into the City of Carlsbad in 1978. Scheduled passenger service (air taxi) began in 1991 (County of San Diego, 2002).

In the FAA National Plan of Integrated Airports Systems (NPIAS), which defines the role of an airport, CRQ is classified as a B2 airport enplaning more than 51,800 passengers per annum (FAA, 2003).

2.1 AIRSPACE AND AIR TRAFFIC CONTROL

In the U.S., only the FAA has the authority to regulate and exercise control over the National Airspace System (NAS) used by aircraft. Pilots operating aircraft in the Carlsbad area have to communicate and coordinate their flights with the U.S. Air Traffic Control (ATC). In the U.S., the NAS is grouped into three areas: enroute, terminal, and oceanic. Terminal air traffic control is further divided into two parts: Terminal Radar-Approach Control (TRACON) and Airport Traffic Control Tower (ATCT) operations at airports. The Air Route Traffic Control Centers (ARTCC) manage the enroute aircraft moving between different parts of the U.S. airspace. The Los Angeles ARTCC located 110 miles north of CRQ near Palmdale California provides enroute services relevant to aircraft from/to CRQ. The TRACON receives traffic from the ARTCC and routes it to a specific airport located within the area they control. Generally, the Southern California TRACON located near Marine Corps Air Station (MCAS) Miramar, then hands over traffic to the ATCT of the destination airport.

The ATCT controls the airspace within a specified area around an airport. The ATCT monitors, supervises, and directs arrival and departure aircraft at the airport. They are also responsible for managing the traffic that traverses their airspace. The ATCT exercises movement control of aircraft on the runways and taxiways, issues clearances to departing aircraft, and informs pilots of the basic meteorological data needed for flying.

Figure 2-2 depicts the airspace in the vicinity of CRQ. The airspace around CRQ is categorized as Class D airspace. It extends out three nautical miles from the center of the airfield and extends upward to an altitude of 2,800 feet above mean sea level (MSL). The Class D airspace is active and controlled during periods when the ATCT is in operation. The ATCT, operated by the FAA, is attended between 07:00 a.m.
through 10:00 p.m., Monday through Sunday. During the period the ATCT is not being operated, the airspace around the airport is uncontrolled Class G airspace with a floor of 700 feet MSL.

Palomar has two Class E extensions. During the time the ATCT is operational, the Palomar Class E extensions become part of the Palomar surface area. The extension to the northwest provides protection for the Palomar VOR-A approach, and the extension to the east provides protection for the Palomar ILS Runway 24 approach.

### 2.2 AIRFIELD LAYOUT

Figure 2-3 shows a diagram of the airport. At an average elevation of 328 feet MSL, CRQ has one paved operational runway -- 06-24. In the 06 direction, Runway 06-24 allows for departures and approaches to the east. In the 24 direction, Runway 06-24 allows for departures and approaches to the west. The pavement for Runway 06-24 is 4,900 feet in length and 150 feet wide. The runway has pavement strengths of 60,000 pounds single wheel gear, 80,000 pounds dual wheel gear, and 110,000 pounds dual tandem gear (Airnav, 2004).

Although the pavement has a length of 4,900 feet, not all 4,900 feet of the runway can be used in both directions for all purposes. Runway 06 has a displaced departure and arrival threshold of approximately 300 feet yielding available landing (LDA) and stopping distances of 4,600 feet. However, the available takeoff run (TORA), available takeoff distance (TODA), and available accelerate-stop distance (ASDA) are 4,900 feet. It is not equipped with an instrument approach. Runway 24 is equipped with an Instrument Landing System (ILS, Category I) approach and all declared distances (TORA, TODA, LDA, and ASDA) are 4,600 feet.

The current magnetic declination (the difference between magnetic north and true geographic north) is 13 degrees east as of March 2003 (NOAA). The ATC and pilots use magnetic headings to direct and fly aircraft. Magnetic declination is also related to aircraft/engine run-ups.

### 2.3 NAVIGATIONAL AIDS

There are two types of navigational aids (Navaids) at airports: electronic and visual. Both types have been installed on the runways at CRQ to facilitate safe and efficient use of the airport. Table 2-1 shows the Navaids available on each runway. In addition, a lighted wind cone and a segmented circle are situated north of the runway and north of the ATCT. This facility assists pilots during visual weather conditions.

The Navaids located on the airport provide specific guidance for an aircraft to a specific runway. For an aircraft to be flown to a location near the airport where onsite Navaids can be used, the pilot must navigate using en route Navaids. These devices are strategically located and installed by the FAA to provide navigational assistance to pilots flying across the country and have varying capabilities and uses. The two most common types of electronic navigational aids are the Non-Directional Beacon (NDB) and the Very High Frequency (VHF) Omni-Directional Range (VOR) Station.
Table 2-1
Navigational Aids
McClellan-Palomar Airport

<table>
<thead>
<tr>
<th>Runway</th>
<th>Electronic</th>
<th>Visual</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>None</td>
<td>4-light Precision Approach Path Indicator on left</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Instrument Landing System (ILS)</td>
<td>Medium Intensity Approach Lighting System (MALS-R)</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Glide Slope</td>
<td>4-light Precision Approach Path Indicator on left</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Localizer</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

Source: FAA Form 5010, January 3, 2001

A VHF Omni-Range Radio Beacon (VORTAC) aids navigation to or through the CRQ area. The City of Oceanside VORTAC is a combination of the Tactical Air Navigation (TACAN) providing an ultra-high frequency aid, and VOR located approximately 9.7 nautical miles northwest of CRQ. The VOR generates a signal that is translated by airborne equipment into an azimuth reading. The TACAN portion of the facility provides distance to station information using the aircraft’s distance measuring equipment (DME). CRQ has an ILS (precision) approach to Runway 24, a Global Positioning System (GPS, non-precision) approach to Runway 24 and a precision VOR approach. The VOR approach is associated with the Oceanside VORTAC. CRQ does not have any NDB approaches.

2.4 WEATHER

Weather has a significant impact on noise exposure and propagation. Runway use and the operational characteristics of aircraft are heavily influenced by weather. The following two subsections detail modeled weather conditions and their impacts on aircraft operations.

2.4.1 Temperature and Pressure

Temperature is an important factor in aircraft performance. High temperatures increase takeoff distance and reduce climb performance, and generally result in increased noise exposure. As computed from monthly National Oceanographic and Atmospheric Administration (NOAA) climatological data from its McClellan-Palomar Airport Weather Station (Automated Surface Observation System) (derived from average daily values), the annual average daily 24-hour temperature for 2002 was 61 degrees Fahrenheit (°F). This value was used in the INM and is standard atmospheric temperature, adjusted for airport elevation (National Climatic Data Center [NCDC], 2003). The annual average daily pressure for 2002 was 29.6 inches of mercury.

2.4.2 Wind

Wind speed and direction primarily determine runway selection and operational flow. Aircraft generally takeoff and land into the wind (known as a headwind) when possible. Headwinds reduce an aircraft's required takeoff and landing distance and increase climb rate. Aircraft can operate with considerable crosswinds (a wind blowing at the side of the aircraft) of up to approximately 20 knots for a typical air carrier aircraft.
SECTION TWO

Airport Setting

Aircraft can operate with limited tailwinds (a wind blowing on the rear of the aircraft) up to 10 knots for a typical air carrier aircraft. Tailwinds increase required takeoff and landing distance. Winds in excess of crosswind and tailwind limits generally force aircraft to use a different runway. The winds at CRQ are generally out of the west and favor operations on Runway 24. During infrequent ‘Santa Ana wind’ conditions, the winds are out of the east and favor operations on Runway 06. The annual average daily wind speed for 2002 was 4 knots at a direction of 212 degrees from true north (NCDC, 2003).

2.5 TERRAIN

The terrain around CRQ varies significantly. In general, the terrain rises to the east and falls to the west towards the ocean. CRQ itself sits on a plateau. Northwest and southwest of CRQ, residential areas line the crests of the hillsides and some have views of the airport and surrounding areas.

The terrain modeling features of INM Version 6.1 were employed for this study. INM adjusts the height of ground-based receptors based on their local elevation relative to the altitudes of the aircraft.
SECTION 3 AIRCRAFT NOISE EXPOSURE METHODOLOGY

3.1 COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)

Part 150 requires the use of standard methodologies and metrics for analyzing and describing noise. It also establishes guidelines for the identification of land uses that are incompatible with noise of different levels.

CNEL is the primary noise descriptor of this Part 150 Study. As described in detail in Appendix C (along with a general treatise on noise and its effects), CNEL is a 24-hour time-weighted-average noise metric expressed in A-weighted decibels (dBA) which accounts for the noise levels of all individual aircraft events, the number of times those events occur, and the time of day at which they occur. CNEL has three time periods: daytime (7:00 a.m. to 7:00 p.m.), evening (7:00 p.m. to 10:00 p.m.), and nighttime (10:00 p.m. to 7:00 a.m.). In order to represent the added intrusiveness of sounds occurring during evening and nighttime hours, CNEL ‘penalizes’ or weights events occurring during the evening and nighttime periods by 5 dBA and 10 dBA, respectively. Due to the CNEL descriptor’s close correlation with the degree of community annoyance from aircraft noise (also discussed in Appendix C), CNEL and Day-Night Average Sound Level (DNL), have been formally adopted by most federal agencies for measuring and evaluating aircraft noise for land use planning and noise impact assessment.

Part 150 also requires that the annual average 65, 70 and 75 CNEL contour lines (or contours), for annual average daily operations, be depicted. CNEL contours are lines of equal noise exposure. The significance of the CNEL values is discussed in Sections 5, 6, and 7. CNEL contours are analogous to topographic contours, which are lines of equal elevation. In order to create CNEL contours, the CNEL must be assessed for many points on the ground. Measurements of CNEL are practical only for obtaining values for a relatively limited number of points, and in the absence of a permanently installed noise monitoring system, only for relatively short time periods. Although CRQ has a permanent noise monitoring system that collects data year round, only four noise monitors have been deployed. Instead, many airport noise studies, including this document, are based on estimates of CNEL using a FAA-approved computer-based noise model. The model used for this document is discussed in greater detail in the next section.

Not only is the CNEL descriptor required by Part 150, CNEL is specified by and consistent with CCR Titles 21 and 24 and is specified by the City and County Noise Elements of their General Plans. For Part 150-related studies, as a minimum, CNEL contours of 65, 70 and 75 dBA are developed. This NEM update also includes the 60 CNEL contour because it has been historically depicted by CRQ and the City.

3.2 FAA INTEGRATED NOISE MODEL

According to the Part 150 rules, analyses of subsonic aircraft noise exposure and compatible land uses around civilian airports can be accomplished using a computer-based program called the INM. Version 6.1 was the version used for this NEM update (FAA, 1999; 2003)

INM incorporates the number of annual average daily daytime (7:00 a.m. to 7:00 p.m.), evening (7:00 p.m. to 10:00 p.m.), and nighttime (10:00 p.m. to 7:00 a.m.) flight and run-up events, flight paths, run-up locations, and flight/run-up profiles of the aircraft, along with its extensive internal database of aircraft noise and
performance information, to calculate the overall daily sound level (e.g., CNEL) at many points on the ground around an airport. From a plotted grid of points, contours of equal daily sound level are plotted by INM for overlay onto land use maps. INM also has the flexibility of calculating daily sound levels at any specified point so that noise exposure at representative locations around an airport can be obtained.

The results of the INM analysis provide a relative measure of noise exposure around airfield facilities. When the calculations are made in a consistent manner, INM is most accurate for comparing before and after noise effects resulting from forecast changes or alternative noise control actions. It allows noise predictions for such proposed actions without the actual implementation and noise monitoring of those actions.

Version 6.1 of INM features enhancements that enable it to produce more accurate noise predictions than previous versions. INM V6.1 also has the capability to compute noise levels from aircraft engine run-ups and to create dispersed tracks, which more accurately represent actual flight tracks.

Noise contours generated by INM do not depict a strict demarcation of where the noise levels end or begin. Their purpose is to describe the generally expected noise exposure. It must be recognized that although INM is the current state-of-the-art aircraft noise modeling software, input variables to INM require several simplifying assumptions to be made, such as: aircraft types flown, flight track utilization, day-night operational patterns, and arrival/departures profiles flown. Furthermore, the noise contours represent average annual conditions rather than single event occurrences. Noise exposure on any one day may be greater or less than the average operational day. INM is useful for comparison of noise impacts and provides a consistent and reasonable method to conduct airport noise compatibility planning.

Although the INM database provides a large selection of aircraft to model, it does not contain every aircraft in the worldwide commercial, general aviation, and military aircraft fleet. For this reason, the FAA developed an official aircraft substitution list that allows the user to substitute similar aircraft when necessary for modeling purposes. These substitutions represent a very close estimate of the noise produced by the actual aircraft. Despite the large number of aircraft types in the database and approved substitutions, some airports require modeling of unique aircraft types not found in the database/substitution list. When this occurs, a user-defined aircraft may be used in INM, with prior FAA, Office of Environment and Energy (AEE-120) approval. Generating a user-defined aircraft requires detailed noise and performance data, which is an extensive undertaking and not within the scope of this Part 150 study. For this study’s NEMs, all aircraft modeled are either a true representative of an aircraft type or an acceptable FAA-approved substitution. Table D-1 of Appendix D provides a description of all of the representative INM-modeled aircraft types used in this study.

The INM V6.1 contains a database of takeoff and approach profiles for a variety of aircraft. These profiles contain information on an aircraft’s altitude, distances from the runway threshold, airspeed, flap settings, climb rates, engine power settings, etc. Each of the elements in a profile affects the level of noise generated along an aircraft’s flight path. These profiles are critical to noise modeling because of their effect on the amount of noise that reaches the ground. In general, the closer aircraft are to the ground, the louder their noise levels. Aircraft with poor climb characteristics may generate greater noise impacts on departure than aircraft with good climb characteristics, if all other factors such as airspeed and engine power settings are constant. User-defined flight profiles may be used in INM, with prior FAA AEE-120 approval. For most aircraft operations at CRQ, INM standard database departure, arrival, and touch-and-go (TNG) profiles were used. This study’s FAA-approved user-defined flight profiles are the subject of Appendix E.
Because aircraft noise and performance vary with departure trip length, INM has up to seven standard takeoff profiles relating to trip distance of most fixed-wing air carrier and jet cargo aircraft types in its database. Table 3-1 lists the ranges of trip distances in INM, termed “Stage length.” INM contains only the first stage length for departures of most air taxi and general aviation aircraft types.

<table>
<thead>
<tr>
<th>Stage Length</th>
<th>Distance (Nautical Miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than 500</td>
</tr>
<tr>
<td>2</td>
<td>500 – 1,000</td>
</tr>
<tr>
<td>3</td>
<td>1,000 – 1,500</td>
</tr>
<tr>
<td>4</td>
<td>1,500 – 2,500</td>
</tr>
<tr>
<td>5</td>
<td>2,500 – 3,500</td>
</tr>
<tr>
<td>6</td>
<td>3,500 – 4,500</td>
</tr>
<tr>
<td>7</td>
<td>Greater than 4,500</td>
</tr>
</tbody>
</table>

For CRQ, modeling of military aircraft and helicopters was also required. Stage length does not apply to military aircraft – standard database default profiles can be used or user-defined profiles subject to FAA AEE-120 approval may be generated. Stage length also does not apply to helicopters -- user-defined profiles subject to FAA AEE-120 approval must be generated.

As shown in Table 3-1, stage lengths 1 through 6 cover trip distances up to 4,500 nautical miles. Stage length 7 is reserved for trip distances greater than 4,500 nautical miles. As stage length increases, aircraft require more fuel to conduct the operation. At longer stage lengths, the aircraft operator tries to maximize the economies of scale, usually by increasing the cargo and/or passenger loads. The increase in cargo, passengers, and fuel quantity increases the aircraft’s weight resulting in increased runway length requirements for take-off and decreased aircraft performance during take-off and climb. The lower operating performance of aircraft is marked by a slower rate of climb that requires greater distances across the ground to obtain normal operating altitudes. The resulting noise impacts are greater because the aircraft produces noise closer to the ground for a longer period of time.
SECTION 4  LAND USE AND COMPATIBILITY GUIDELINES

4.1 INTRODUCTION

This section documents existing land uses and noise sensitive sites, and describes future land use trends in the vicinity of CRQ. It also addresses the land use controls in the County and the City. The land use data described and illustrated in this section are based on aerial photography, zoning and land use information obtained from the Carlsbad General Plan (1994), and field surveys.

CRQ is located within the City of Carlsbad (Figure 2-1). The City of San Marcos is located approximately four miles east of CRQ and the community of La Costa is located approximately two miles southeast of CRQ. The cities of Vista and Oceanside are also located adjacent to the City of Carlsbad. Existing surrounding land uses are depicted on Figure 4-1. The areas immediately north, south, and east of CRQ are primarily occupied by industrial parks. Much of the additional surrounding land is vacant. Residential development pressure has intensified on all sides of CRQ over the past several years.

4.2 REGULATORY FRAMEWORK

Land use planning and the adoption, administration, and enforcement of zoning regulations are an exclusive authority of local governments within each of their jurisdictions. This includes authority for airport-compatible land use planning. Neither the FAA nor the Airport has the authority to exercise land use control in a local government’s jurisdiction. Land use planning and zoning authority for the areas effected by CRQ is the responsibility of the city of Carlsbad.

Airport noise compatible land use is needed to promote public health and welfare while preserving airport operation capability. Non-compatible development can be prevented and further development controlled by limiting noise-impacted or noise-sensitive uses. Establishing overlay zoning to limit noise-sensitive land uses near airports provides noise compatibility. Controls should address current and future land use within specific areas of exposure to aircraft-generated noise.

The primary non-regulatory policy document, which typically influences development, is the General Plan. The General Plan provides the basis for the zoning ordinance and sets forth guidelines for future development. The zoning ordinance regulates the types of uses, building height, bulk, and density permitted in various locations. Building codes are also used to regulate development.

4.2.1 Comprehensive Land Use Plan

The San Diego County Regional Airport Authority (SDCRAA), as the region’s Airport Land Use Commission (ALUC), is currently preparing an update of the CRQ Comprehensive Land Use Plan (CLUP). The CLUP reflects the anticipated growth of CRQ for the next 20 years. The intent is "to provide for the orderly growth of each public airport and ... [to] safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general" (Section 21675, Public Utility Code).
The original land use plan for CRQ was prepared by the San Diego Association of Governments (SANDAG) and was adopted in 1974 and a revised plan was adopted in 1986. The plan was adopted to assist in ensuring compatible land use development in the area surrounding CRQ and identifies areas likely to be affected by noise and flight activity created by aircraft operations at CRQ. These affected areas include the CRQ Airport Influence Area (AIA), Noise Impact Notification Area (NINA), projected noise contours, clear zone, and flight activity zone.

The AIA (Figure 2-1) encompasses those areas adjacent to CRQ, which could be impacted by noise levels exceeding the California State Noise Standards or where height restrictions would be needed to prevent obstructions of navigable airspace. Depending upon location, compatible land uses within the AIA include non-residential uses such as office, industrial, commercial, or low density residential uses such as a single-family dwellings. A record of the AIA must be filed in the office of the County Recorder. The record serves to notify owners or potential purchasers of property in the AIA that property in the area is currently subject to aircraft noise and aircraft overflights. Typically, real estate professionals and companies contract with a hazard research company that researches a specific property for potential hazards, such as proximity to landfills, proximity to an AIA, etc. The hazard research companies inform the real estate professional of potential hazards and the real estate professional is required to inform the prospective purchaser.

The NINA is the area most impacted by aircraft operations to and from CRQ. Physically, the NINA is composed of a three mile radius around the airport, as well as the VOR and ILS corridors to the west and the east, respectively, and extends both horizontally and vertically due to terrain consideration (Figure 2-1). All new residential projects located within the NINA are required to record to deed a notice concerning aircraft environmental impacts, clarifying that the property is subject to aircraft overflight, sight and sound of aircraft from CRQ.

4.2.2 Carlsbad General Plan

As required by State law, Carlsbad's General Plan must comply with the CRQ CLUP. If the City chooses to overrule a finding of the Airport Land Use Commission as stated in the CLUP, it may do so by a two-thirds vote if it makes a specific finding that the General Plan and the CLUP are consistent.

Carlsbad adopted their current General Plan in 1994. The General Plan is comprised of a “Vision and Introduction” Section and eight elements: Land Use Element, Circulation Element, Housing Element, Open Space and Conservation Element, Noise Element, Public Safety Element, Parks and Recreation Element, and Arts Element. Issues relevant to noise in the study area are described within several Elements.

To limit noise exposure on noise sensitive land uses, the City has designated areas surrounding CRQ for predominately planned industrial uses. To accomplish this, a significant amount of non-residential land has been designated on the plan, possibly exceeding what is needed to serve and accommodate future residential uses located exclusively in Carlsbad. As such, future re-designation of planned residential areas to non-residential uses to accommodate future CRQ growth would not be supported. The Land Use Element within the General Plan classifies some areas near CRQ as an “Unplanned Area” (UA) and the General Plan states that these areas are not appropriate for residential uses.
While the Circulation Element encourages the continued operation of CRQ, it also prohibits the expansion of CRQ unless approved by a majority vote of the Carlsbad electorate as required by the Carlsbad Municipal Code. This Element encourages coordination with FAA and other interested parties (the San Diego Regional Airport Authority), “to protect public health, safety and welfare by ensuring the orderly operation of the Airport and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around the airport.”

The Noise Element states that, “in general, land in the immediate vicinity of the Airport or under the take off or landing approach is subject to noise levels which are unsuitable for residential development, schools, hospitals, or other similar noise sensitive uses.”

Land Use Policy, C-5 within the Noise element, recommends 60 CNEL as the exterior noise level to which all residential units should be mitigated. The 65 CNEL is the maximum noise level to which residential units subject to noise from CRQ should be permitted. Additional disclosure actions (easements, deed restrictions, recorded notice, etc.) may be required of developers/sellers of noise impacted residential units. For new residential properties identified as requiring a noise study, a study shall be prepared by an acoustical professional. This study shall document the projected maximum exterior noise level and mitigate the projected exterior noise level to a maximum allowable noise level as identified in this policy. Interior noise levels should be mitigated to 45 CNEL when openings to the exterior of the residence are open or closed. If openings are required to be closed to meet the interior noise standard, then mechanical ventilation shall be provided. If the acoustical study shows that exterior noise levels cannot be mitigated to the level allowable as identified in this policy or less, the development should not be approved without one or more of the following findings:

- Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect (noise).
- Changes or alterations to avoid or substantially lessen the significant environmental effects (noise) are within the responsibility and jurisdiction of another public agency and not the City of Carlsbad. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives to avoid or substantially lessen the significant environmental effect (noise).
- If a project is approved with exterior noise levels exceeding the level allowable pursuant to this policy, all purchasers of the impacted property shall be notified in writing prior to purchase, and by deed disclosure in writing, that the property they are purchasing is, or will be, noise impacted and does not meet Carlsbad noise standards for residential property. Notwithstanding project approval, no residential interior CNEL should exceed 45 dBA.

The General Plan also requires that a Noise Study be submitted with all discretionary applications for residential projects of five or more single family dwelling units or any multiple family dwelling units located within or 500-feet beyond the 60 CNEL noise contour lines.
SECTION FOUR  

Land Use and Compatibility Guidelines

4.2.3 Carlsbad Zoning Ordinance

The City requires discretionary review of all proposed development projects within the AIA. All parcels must process a site development plan, planned industrial permit, or other discretionary permit.

Although the area surrounding CRQ is primarily industrial, opportunities for residential development do exist. The “PM” zoning district allows multifamily residential development of up to 40 units per acre provided it serves with or is built in conjunction with adjoining industrial development. Any multifamily development within the 65 CNEL is subject to a noise study and mitigation measures. Additionally, commercial land uses that may include, hotels, motels, or semi-transient commercial housing structures such as Single Room Occupancy Hotels are also allowed surrounding CRQ. Transient Shelters are also allowed in industrial areas with a Conditional Use Permit (CUP).

4.2.4 Oceanside General Plan

The 1974 City of Oceanside General Plan is the primary source of long-range planning and policy direction that will be used to guide growth and preserve the quality of life within the City of Oceanside. This General Plan contains 10 elements: Land Use Element, Circulation Element, and Recreational Trails Element, Housing Element, Environmental Resources Management Element, Public Safety Element, Noise Element, Community Facilities Element, Hazardous Waste Management Element, and Military Reservation Element.

The Noise Element does not specifically address CRQ. The Element does have a goal of minimizing the effects of excessive noise in the City of Oceanside and recommends the adoption of a new noise ordinance, the planning of land uses to avoid noise impacts, and the establishment of quiet zones.

4.2.5 Vista General Plan

The 1983 Vista General Plan has several elements. The Land Use Element forms the key to the entire General Plan document. The Noise Element refers to the CLUP regarding airport noise and land use compatibility.

4.2.6 County of San Diego Plan, Noise Element of General Plan, Revised 1980

The major issues addressed within the Noise Element include the County's role in enforcing the California Airport Noise Standards, the need for an integrated land use and transportation planning program, and the importance of acoustical insulation techniques in urban development policies.

Aircraft Noise

Urban development is continuing to occur adjacent to general aviation airports operated by the County.

The Findings chapter within the Noise Element is based on the present state of scientific knowledge about noise. Unanimous agreement does not exist in this area of science; however, agreement is widespread enough that the following factual information has been accepted by the Congress as a basis for protecting...
Section Four

Land Use and Compatibility Guidelines

the public health and welfare with an adequate safety margin. Relevant findings within the 1980 Noise Element are outlined below:

- Finding 7: There is no one noise standard or set of noise standards that is universally applicable in San Diego County. The California Airport Noise Standard is 65 CNEL. The requirement for residential soundproofing is effective at a level of 60 dB(A) CNEL.

- Finding 14: Existing federal policy proposes to reduce aircraft noise by reducing engine noise of current models, controls on future type aircraft, changes in aircraft operational procedures and extensive technical research, and to formulate airport noise certification regulations.

- Finding 15: The Environmental Protection Agency's Report to Congress on Aircraft Noise, has indicated its intention to propose regulations to require retrofitting of existing aircraft with quieter engines, to lower the permissible noise levels for future aircraft, to require the use of noise abatement takeoff, landing, and flight procedures, and to develop airport noise certification regulations (the Agency's term for a cumulative airport noise control system similar to the California Airport Noise Standards).

- Finding 21: The California Airport Noise Standards require a progressive reduction of noise at airports until no adjacent resident experiences a CNEL greater than 65 dBA by 1986. The responsibility for implementing this policy is divided between the State and its counties that are delegated specific review and enforcement functions. This policy requires the San Diego Board of Supervisors to determine which public and private civilian airports exceed the maximum noise levels and have a "noise problem." The Board is also required to notify the airport proprietor to begin a noise monitoring program in peripheral areas for frequency and level of aircraft noise within six months, validate the airport proprietor's noise monitoring data, submit quarterly reports to the Department of Transportation's Division of Aeronautics, and review the airport's noise monitoring plan.

- Finding 24: The Comprehensive Planning Organization, acting as the Airport Land Use Commission, is required to prepare land use plans for all areas adjacent to each public airport which could exceed the State airport noise standards and for which building height restrictions are needed to maintain navigable airspace.

4.2.7 Building Code

The California Building Code Noise (CCR Title 24, Division II, Sound Transmission Control) requires that multifamily dwellings located in an area exceeding 60 CNEL have an acoustical analysis conducted showing that the proposed design will limit interior noise in habitable to 45 CNEL or below. Worst-case noise levels, either existing or future, must be used. Future noise levels must be predicted at least 10 years from the time of the building permit application.

4.2.8 State Of California Aircraft Noise/Land Use Compatibility Guidelines

Although the State does not administer the Part 150 process, the State has established acceptability criteria for evaluating airport noise levels. California Code of Regulation Title 21 (Division 2.5 Division
of Aeronautics, Chapter 6. Noise Standards) established 65 CNEL as the acceptable noise level for persons residing in the vicinity of an airport.

**4.3 FAA AIRCRAFT NOISE/LAND USE COMPATIBILITY GUIDELINES**

In a Part 150 study, CNEL estimates have the following two principal uses:

- Provide a basis for comparing existing noise conditions to the effects of noise abatement procedures and/or forecast changes in airport activity, and
- Provide a quantitative basis for identifying aircraft noise not compatible with a given land use.

Both of these functions require the application of objective criteria for evaluating aircraft noise. The FAA has adopted guidelines regarding the compatibility of land uses with various noise levels in the DNL metric (CNEL in California). These guidelines are contained in Part 150. The development of these guidelines was intended to establish a consistent process (for all airports nationwide) for estimating noise compatibility and for considering federal funding for noise compatibility program implementation. The County may consider adopting a designation of incompatibility that is different from the guidelines in Part 150. However, any such modification to standards should be based on public input and the ability to maintain existing compatible land uses for future airport growth.

Table 4-1 identifies the land use compatibility standards from Federal Aviation Regulation (FAR) Part 150 (14 CFR Part 150) recommended for adoption by the County of San Diego. It indicates that all land uses are considered to be compatible with airport noise levels less than 65 CNEL. This limit is supported formally by standards adopted by the U.S. Department of Housing and Urban Development (HUD). The HUD standards address whether sites are eligible for Federal funding support. These standards, set forth in 24 CFR Part 51, define areas with DNL (or CNEL) exposure not exceeding 65 dBA as acceptable for funding. Areas exposed to noise levels between 65 and 75 DNL are “normally unacceptable,” and require special abatement measures and review. Those at 75 DNL and greater are “unacceptable” except under limited circumstances.

The cumulative nature of CNEL means that the same level of noise exposure can be achieved in an infinite number of ways. For example, a reduction in a small number of relatively noisy operations may be counterbalanced by a much greater increase in relatively quiet flights, with no net change in CNEL.

With these cautions in mind, the Part 150 guidelines can be applied to the CNEL contours to identify the potential types, degrees, and locations of incompatibility. Measurement of the land areas involved can provide a quantitative measure of exposure that allows a comparison of at least the gross effects of existing or forecast aircraft operations.

Noise-sensitive land uses such as residences and schools are considered non-compatible with CNEL of 65 dBA or greater in accordance with local guidelines. Where the community determines that residential or school uses must be allowed, acoustical treatments designed to achieve indoor levels of 45 CNEL or less should be incorporated into the structures. Other noise-sensitive land uses such as churches, hospitals, and nursing homes are considered generally compatible with CNEL of greater than or equal to 65 dBA, provided that their structure is designed with, or contains, adequate measures to achieve reduction in noise levels (i.e.,
sound insulation). Figure 2-1 shows the noise sensitive locations in the vicinity of the airport, all of which are outside of the 65 CNEL noise contours identified for the 2004, 2009 and 2014 NEMS shown later in this Study. Land uses that are less sensitive to noise, such as office buildings, are considered compatible with CNEL less than 70 dBA without sound insulation and less than 80 CNEL with sound insulation.

Table 4-1  
FAR Part 150 Land Use Compatibility Guidelines

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Yearly Community Noise Equivalent Level (CNEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less Than 65 Decibels</td>
</tr>
<tr>
<td>Residential (Other than mobile homes &amp; transient lodges)</td>
<td>Y</td>
</tr>
<tr>
<td>Mobile Home Parks</td>
<td>Y</td>
</tr>
<tr>
<td>Transient Lodging</td>
<td>Y</td>
</tr>
<tr>
<td>Public Use</td>
<td></td>
</tr>
<tr>
<td>Schools</td>
<td>Y</td>
</tr>
<tr>
<td>Hospitals, Nursing Homes</td>
<td>Y</td>
</tr>
<tr>
<td>Churches, Auditoriums, Concert Halls</td>
<td>Y</td>
</tr>
<tr>
<td>Governmental Services</td>
<td>Y</td>
</tr>
<tr>
<td>Transportation</td>
<td>Y</td>
</tr>
<tr>
<td>Parking</td>
<td>Y</td>
</tr>
<tr>
<td>Commercial Use</td>
<td></td>
</tr>
<tr>
<td>Offices, Business &amp; Professional</td>
<td>Y</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Building Mts, Hardware &amp; Farm Equipment</td>
<td>Y</td>
</tr>
<tr>
<td>Retail Trade - General</td>
<td>Y</td>
</tr>
<tr>
<td>Utilities</td>
<td>Y</td>
</tr>
<tr>
<td>Communications</td>
<td>Y</td>
</tr>
<tr>
<td>Manufacturing &amp; Production</td>
<td></td>
</tr>
<tr>
<td>Manufacturing, General</td>
<td>Y</td>
</tr>
<tr>
<td>Photographic and Optical</td>
<td>Y</td>
</tr>
<tr>
<td>Agriculture (Except Livestock) &amp; Forestry</td>
<td>Y</td>
</tr>
<tr>
<td>Livestock Farming &amp; Breeding</td>
<td>Y</td>
</tr>
<tr>
<td>Mining &amp; Fishing, Resource Production &amp; Extraction</td>
<td>Y</td>
</tr>
<tr>
<td>Recreational</td>
<td></td>
</tr>
<tr>
<td>Outdoor Sports Arenas, Spectator Sports</td>
<td>Y</td>
</tr>
<tr>
<td>Outdoor Music Shells, Amphitheaters</td>
<td>Y</td>
</tr>
<tr>
<td>Nature Exhibits &amp; Zoos</td>
<td>Y</td>
</tr>
<tr>
<td>Amusement, Parks, Resorts, Camps</td>
<td>Y</td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water Recreation</td>
<td>Y</td>
</tr>
</tbody>
</table>
NOTE: 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 use remains with the local authorities. FAA determinations under Part 150 are not intended to substitute Federally determined land use for those determined to be appropriate by local authorities in response to locally-determined needs and values in achieving noise-compatible land uses.

KEY TO TABLE:

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 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 must be incorporated in design and construction of structure.

1 Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal 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 assumes mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

2 Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of the 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 must be incorporated into the design and construction of portions of the buildings where the public is received, office areas, noise-sensitive areas or where the normal noise level is low.

4 Measures to achieve NLR of 35 must be incorporated into the design and construction of portions of the buildings where the public is received, office areas, noise-sensitive areas or where the normal noise level is low.

5 Land use compatible provided special sound reinforcement systems are installed.

6 Residential buildings require a NLR of 25.
7 Residential buildings require a NLR of 30.
8 Residential buildings not permitted.

Source: FAR Part 150 (18 January 1985) with local interpretation of level ranges.

4.4 DEMOGRAPHICS

Before evaluating the effects of future aircraft noise, the likelihood of future noise-sensitive development in the area must be understood. Development trends in the vicinity of the airport are critical to noise compatibility planning. Future residential growth can constrain the operation of the airport if it occurs beneath aircraft flight tracks and within areas subject to high noise levels.

Table 4-2 summarizes the population and housing counts for the city of Carlsbad. According to the U.S. Census Bureau, in 2002 the population of the City grew by approximately 3.5%, from 83,680 in 2001 to 86,639 in 2002 (U.S. Census Bureau, 2002). SANDAG has estimated the future population to be approximately 107,305 in the year 2010 and approximately 120,631 in the year 2020. Housing units are also expected to increase. In 2000, there were an estimated 33,798 housing units within the City. In 2010, approximately 45,321 total housing units are projected and in 2020 approximately 48,975 total housing units are projected (SANDAG, 2003).
### Table 4-2
Population and Housing Counts for the City Of Carlsbad*

<table>
<thead>
<tr>
<th>Year</th>
<th>Census Bureau</th>
<th>State Department of Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>62,846</td>
<td>78,247</td>
</tr>
<tr>
<td>2000</td>
<td>78,247</td>
<td>88,013</td>
</tr>
<tr>
<td>2002</td>
<td>88,013</td>
<td>88,013</td>
</tr>
<tr>
<td>Housing Units</td>
<td>27,119</td>
<td>33,717</td>
</tr>
<tr>
<td></td>
<td>37,486</td>
<td>37,486</td>
</tr>
</tbody>
</table>

*Notes: Census Bureau estimates are as of April 1 of the years stated. State Department of Finance estimates are as of January 1 of the year stated.

Source: [http://www.ci.carlsbad.ca.us/about/demog.html](http://www.ci.carlsbad.ca.us/about/demog.html)

### 4.5 EXISTING AND PLANNED LAND USE

Existing and planned land use must be considered when assessing noise compatibility. An analysis of existing land use provides the data required to: 1) determine the type and extent of noise-sensitive land uses (such as residences, schools, and hospitals), and 2) the number of persons currently exposed to high levels of aircraft noise.

Land use plans can be studied for indications of what types of development the affected jurisdictions will encourage in the future. Land use data can also be used to estimate the potential increase or decrease in the number of persons and the noise-sensitive land uses that would be exposed to high levels of aircraft noise in the future.

#### 4.5.1 Existing Land Use, Zoning and Compliance

The Part 150 definition of noise sensitive public buildings includes schools, hospitals, and health care facilities. Also identified are properties on or eligible to be included in the National Register of Historic Places (NRHP).

The area around the airport is served by four schools districts: 1) Carlsbad Unified School District, 2) Encinitas Union Elementary School District, 3) San Dieguito Union High School District, and 4) San Marcos Unified School District.

The purpose of identifying these sites is to assist in the assessment of which properties are impacted by incompatible noise levels and adopt policies with regard to the location of future noise sensitive land uses. In addition to residential areas, a number of land use types are considered to be noise sensitive according to Part 150 Land Use Compatibility Guidelines (see Table 4-1). As described previously, the Carlsbad General Plan has specific land use designations. The FAA also has certain land use designations as well. These designations are described in Table 4-3.
## Table 4-3
### Land Use Categories/Designations

<table>
<thead>
<tr>
<th>General Plan Designation</th>
<th>General Plan Description</th>
<th>FAA description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Regional Commercial</td>
<td>Commercial</td>
</tr>
<tr>
<td>T-R</td>
<td>Travel/Recreation</td>
<td>Commercial</td>
</tr>
<tr>
<td>T-R/C</td>
<td>Travel/Recreation Commercial</td>
<td>Commercial</td>
</tr>
<tr>
<td>T-R/L</td>
<td>Travel/Recreation/Local Shopping Center</td>
<td>Commercial</td>
</tr>
<tr>
<td>T-R/O</td>
<td>Travel/Recreation/Office</td>
<td>Commercial</td>
</tr>
<tr>
<td>U</td>
<td>Public Utilities</td>
<td>Public Utilities</td>
</tr>
<tr>
<td>PI</td>
<td>Planned Industrial</td>
<td>Manufacturing and Production</td>
</tr>
<tr>
<td>PI/O</td>
<td>Planned Industrial/Office</td>
<td>Manufacturing and Production</td>
</tr>
<tr>
<td>AG</td>
<td>Agriculture</td>
<td>Manufacturing and Production</td>
</tr>
<tr>
<td>OS</td>
<td>Open Space</td>
<td>Open Space</td>
</tr>
<tr>
<td>CF</td>
<td>Community Facility</td>
<td>Public Use</td>
</tr>
<tr>
<td>S-E</td>
<td>School/Elementary</td>
<td>Public Use</td>
</tr>
<tr>
<td>G</td>
<td>Governmental Facilities</td>
<td>Public Use</td>
</tr>
<tr>
<td>TC</td>
<td>Transportation Corridor</td>
<td>Public Use</td>
</tr>
<tr>
<td>RH</td>
<td>Residential, High Density</td>
<td>Residential</td>
</tr>
<tr>
<td>RH/C/O</td>
<td>Residential, High Density-Commercial-Office</td>
<td>Residential</td>
</tr>
<tr>
<td>RH/L/CF</td>
<td>Residential, High Density/Local Shopping Center/Community Facility</td>
<td>Residential</td>
</tr>
<tr>
<td>RL</td>
<td>Residential, Low Density</td>
<td>Residential</td>
</tr>
<tr>
<td>RLM</td>
<td>Residential, Low-Medium Density</td>
<td>Residential</td>
</tr>
<tr>
<td>RM</td>
<td>Residential, Medium Density</td>
<td>Residential</td>
</tr>
<tr>
<td>RM/O</td>
<td>Residential</td>
<td>Residential</td>
</tr>
<tr>
<td>RMH</td>
<td>Residential, Medium-High Density</td>
<td>Residential</td>
</tr>
<tr>
<td>T-R/RH</td>
<td>Residential</td>
<td>Residential</td>
</tr>
<tr>
<td>V</td>
<td>Village</td>
<td>Residential</td>
</tr>
<tr>
<td>UA</td>
<td>Unplanned Area</td>
<td></td>
</tr>
</tbody>
</table>
Residential:
Low Density (RL): 0-1.5 dwelling units per acre
Low-Medium Density (RLM): 0-4 dwelling units per acre
Medium Density (RM): 4-8 dwelling units per acre
Medium-High Density (RMH): 8-15 dwelling units per acre
High Density (RH): 15-23 dwelling units per acre

Commercial:
Travel/Recreation (TR): Visitor attractions and commercial uses, which serve travel and recreational needs
Village (V): Retail Stores, offices, tourist-serving facilities, as well as intermixed residences

Industrial:
Planned Industrial (PI): Industrial development

Government:
Government Facilities (G): Government owned or operated facilities

Public Utilities:
Public Utilities (U): Public utility
Open Space and Community Parks
Open Space and Community Parks (OS): Open space, including existing parks and special resource areas.

Unplanned Areas:
Unplanned Areas (UA): An area where planning for future land uses has not been completed or development has not been formalized

Transportation Corridor:
Transportation Corridor (TC): Major transportation corridors

4.5.1.1 Existing Zoning

Existing zoning is depicted on Figure 4-2. Most of the area surrounding CRQ is zoned industrial. There are no zoned residential areas within the 65 CNEL contour.

4.5.1.2 Noise Complaints

While assessing the exposure of local land use and population to existing aircraft noise levels, it is valuable to review recent noise complaints. Complaints cannot be taken as a complete assessment of a noise problem at an airport. Many unpredictable variables can influence whether a person chooses to file a noise complaint. Many people who are annoyed may find it inconvenient or intimidating to call and complain. Others who decide to complain may be unusually sensitive to noise or be especially anxious about aircraft overflights. Some complaints may be motivated by unusual events rather than a chronic, long-term situation. Despite the limits of complaint information, it can aid in understanding the geographic pattern of concern about the airport.

Tables 4-4 and 4-5 summarize the CRQ received complaints for CY 2002 and CY 2003. The majority of complaints were reported from the area south and west of CRQ, were reported at night, and jets were typically the noise source.
### Table 4-4
**Noise Complaint Data for 2002**

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>TOTAL</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW</td>
<td>34</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49</td>
<td>39</td>
<td>55</td>
<td>23</td>
<td>13</td>
<td>19</td>
<td>255</td>
<td>60%</td>
</tr>
<tr>
<td>NW</td>
<td>4</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>17</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>58</td>
<td>14%</td>
</tr>
<tr>
<td>SE</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>30</td>
<td>7%</td>
</tr>
<tr>
<td>NE</td>
<td>2</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>15</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>6</td>
<td>79</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
<td>44</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>78</td>
<td>72</td>
<td>83</td>
<td>45</td>
<td>29</td>
<td>29</td>
<td>422</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Day</th>
<th>Evening</th>
<th>Nighttime</th>
<th>TOTAL</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Prop</td>
<td>12</td>
<td>11</td>
<td>16</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Jet</td>
<td>28</td>
<td>30</td>
<td>38</td>
<td>32</td>
<td>47</td>
</tr>
<tr>
<td>Helo</td>
<td>4</td>
<td>0</td>
<td>15</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>Comm'l</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
<td>44</td>
<td>42</td>
<td>0</td>
</tr>
</tbody>
</table>

The northern and southern Quadrants are defined by a line bisecting the runway endpoints and extending to infinity in each runway direction. The eastern and western halves are defined by a line through the midpoint of the runway, perpendicular to the runway extending to infinity northward and southward.

- **Day** = 7:00 a.m. to 7:00 p.m.
- **Evening** = 7:00 p.m. to 10:00 p.m.
- **Night** = 10:00 p.m. to 7:00 a.m.
### Table 4-5
Noise Complaint Data for 2003

<table>
<thead>
<tr>
<th>By Quadrant</th>
<th>CY 2003 Month</th>
<th>TOTAL</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW</td>
<td>Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec</td>
<td>332</td>
<td>81%</td>
</tr>
<tr>
<td>NW</td>
<td>0 0 1 3 0 1 0 0 1</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>SE</td>
<td>1 1 1 3 2 2 0 4 0 2 0</td>
<td>16</td>
<td>4%</td>
</tr>
<tr>
<td>NE</td>
<td>2 1 4 5 9 6 11 8 6 4</td>
<td>56</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0 1 25 21 36 38 59 47 66 39 47 32</td>
<td>411</td>
<td>101%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By Aircraft</th>
<th>CY 2003 Month</th>
<th>TOTAL</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec</td>
<td>24</td>
<td>6%</td>
</tr>
<tr>
<td>Prop</td>
<td>1 6 1 7 3 5 6 5 6 5 5 5</td>
<td>50</td>
<td>12%</td>
</tr>
<tr>
<td>Jet</td>
<td>19 18 25 31 48 39 55 27 38 24</td>
<td>324</td>
<td>79%</td>
</tr>
<tr>
<td>Helo</td>
<td>0 2 3 2 1 2 1 0 0 2</td>
<td>13</td>
<td>3%</td>
</tr>
<tr>
<td>Comm'l</td>
<td>0 0 0 0 0 0 0 0 0 0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0 1 25 21 36 38 59 47 66 39 47 32</td>
<td>411</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By Period</th>
<th>CY 2003 Month</th>
<th>TOTAL</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec</td>
<td>81</td>
<td>20%</td>
</tr>
<tr>
<td>Evening</td>
<td>1 0 2 3 2 0 6 1 1 0</td>
<td>16</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0 1 25 21 36 38 59 47 66 39 47 32</td>
<td>411</td>
<td>76%</td>
</tr>
</tbody>
</table>

The northern and southern Quadrants are defined by a line bisecting the runway endpoints and extending to infinity in each runway direction.
The eastern and western halves are defined by a line through the midpoint of the runway, perpendicular to the runway extending to infinity northward and southward.

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
4.5.2 Planned Land Use and Zoning

Recently completed, on-going, and proposed projects occurring within the City of Carlsbad are discussed below (http://www.ci.carlsbad.ca.us/cserv/mstplan.html). The location of these projects is depicted on Figure 4-3.

1 - Bressi Ranch

Project Description: A Master Planned community of 585.1 acres which has been subdivided into 21 lots for future planning purposes including the following: six industrial, seven residential, one mixed use, one community facility, and six open space planning areas for the purpose of regulating the future development of up to 623 residential units (523 single-family and 100 for-sale affordable condos), 2.16 million square feet (sq ft) of industrial buildings, 130,000 sq ft of commercial buildings, and 138,000 sq ft of community-related services and/or facilities. The Master Plan has identified both single-family and multi-family residential product types. Five of the six open space lots totaling 187 acres are for native open space preservation. The remaining open space lot is a 3-acre park for active and passive recreation.

Project Duration: Clearing, grubbing and grading for the project began in February 2003, with expected completion of earthwork to occur in one year. Construction of El Fuerte from its southern terminus to Palomar Airport Road is scheduled for completion in winter 2004; Poinsettia Lane (onsite) will be completed in winter 2004; El Camino Real completed in spring 2004; and improvements to Palomar Airport Road will be complete in spring 2004.

3 - Villages of La Costa

Project Description: The 1,866.4-acre project consists of three major planning areas: 1) The Greens which encompasses approximately 660.7 acres and is located approximately 2,500 feet south of Palomar Airport Road, east of El Camino Real, north of Alga Road and west of Unicornio Street; 2) The Ridge which includes approximately 493.1 acres and is located southeast of El Fuerte Street and Alga Road and northwest of San Marcos Creek; and 3) The Oaks which encompasses approximately 712.6 acres and is located on both sides of Rancho Santa Fe Road.

Project Duration: The build out of the Master Plan is anticipated to take approximately 10 to 15 years.

7 - Calavera Hills

Project Description: A Master Planned community of approximately 1,019 acres of urban villages and open space and a 110-acre environmental mitigation parcel (The Calavera Nature Preserve). The overall Master Plan features 19 residential villages, one community park, two school sites, two community facility sites, one recreational vehicle storage facility, an environmental mitigation open space parcel, as well as large areas of connecting open space corridors.

Project Duration: Complete build out of the Master Plan will likely occur in 2005.
SECTION FOUR
Land Use and Compatibility Guidelines

13 - Robertson Ranch Master Plan

Project Description: A Master Planned community of approximately 403.7 acres, which integrates residential, commercial, educational, recreational, and open space land uses. The residential portion is proposed to provide a total of 1,122 dwelling units in a wide range of product types, densities and price ranges, including multi-family neighborhoods and affordable housing provided under the City’s Inclusionary Housing Ordinance.

Project Duration: The Robertson Ranch Master Plan is intended to be developed in at least two phases over a period of approximately 10 years.

10 - La Costa Town Square

Project Description: A mixed-use project of 81.43 acres that includes 373,000 sq ft of retail uses, 75,000 sq ft of office use, medical offices, open space, and 64 single-family detached residential units.

Project Status: It is anticipated that the project will be heard by the Planning Commission in early 2004.

14 - Holly Springs

Project Description: Subdivision of a 119-acre site to allow 43 single-family custom homes on 1/2-acre minimum lots. Approximately 59 acres will be open space with an additional 20-acre open space remainder parcel.


15 - Cantarini Ranch

Project Description: Subdivision of a 156.72-acre site to allow 105 single-family homes on 1/2-acre minimum lots and 80-unit multiple family units on 7.2 acres.


52 - Kelly Ranch Apartments

Project Description: Archstone Pacific View is a 13 building, 451-unit apartment project located in the Kelly Ranch subdivision. The site will also contain open space, recreation facilities, and a possible child day-care center across the street.

Project Status: Approximately 70% of the apartment buildings are framed out, with the remaining 30% expected to begin framing in spring 2004.

53 - Kelly Ranch Single-Family

Project Description: Kelly Ranch is a 433-acre site located in the Northwest Quadrant of the City. 61.9-acres of the Ranch southeast of the Agua Hedionda Lagoon were subdivided into 178 lots for 147 single-family homes in Planning Areas “I” and “J.” Lots will vary in size from 5,098 sq ft to 12,507 sq ft in
Planning Area “I” (also known as Heron Bay) and 7,500 sq ft to 20,655 sq ft in Planning Area “J” (also known as Spyglass Hills). A 7,200 sq ft recreational vehicle storage lot will be provided for the exclusive use of residents of Kelly Ranch developments: Canterbury, Heron Bay, Spyglass Hills, and two future developments. Planning Areas A and C northwest of the Agua Hedionda Lagoon will be considered for development at a later date.

Project Status: The actions listed below (under “project numbers”) were approved by City Council on June 12, 2001. The project description, above, reflects the amended project based on Coastal Commission approval of LCPA 97-09. All infrastructure associated with this project is in, and the pads have been graded. Construction is under way on both the Heron Bay and Spyglass Hills projects.

54 - Village By The Sea (Redevelopment Area)

Project Description: A mixed-use development consisting of 65 condominium units (11 of which are affordable to lower-income families) and 8,662 sq ft of retail space.

Project Status: The Housing and Redevelopment Commission approved the project on August 6, 2002. The first phase of the residential development should be completed by April, 2004. The second phase to develop the last of the residential buildings and the retail shops should be finished by the end of 2004.

55 - Manzanita Apartments

Project Description: The project provides 157 two and three bedroom apartment homes in a series of 17 buildings, along with related recreational amenities.

Project Status: City Council approved the development at its meeting November 9, 1999. Grading of the site is under way and building construction is anticipated to begin in March 2004.

56 - The Forum

Project Description: Originally approved as The Pavilion, The Forum is a 265,000 sq ft specialty retail commercial center, with second floor office space.

Project Status: The project was approved in December 2001. Construction is under way with some of the stores opening as soon as mid-November 2003. The grand opening is scheduled for spring 2004.

61 - Alga Norte Community Park

Project Description: A 33-acre Master Planned active use community park.

Project Status: The CUP application was submitted to the Planning Department February 9, 2004.

4.5.2.1 Proposed Zoning Changes

There are approximately three proposed zoning changes within the City (Grimm, 2004). No proposed zone change would occur within the 65 CNEL contour.
SECTION FIVE

SECTION 5  NOISE EXPOSURE MAP FOR YEAR 2004

Sections 5.1 through 5.5 discuss the operational information used to generate the Year 2004 Noise Exposure Map (2004 NEM), presented in Section 5.6. Section 5.7 concludes the chapter with a quantification of non-compatible land use relative to the 2004 NEM.

5.1 FLIGHT OPERATIONS AND FLEET MIX

Table 5-1 presents a summary of the modeled flight operations, in terms of arrivals, departures, and training operations. Approximately 204,000 annual flight operations were modeled for this NEM. Within rounding error, the total agrees with counts by the FAA ATCT of 204,289 for CY 2002. The temporal (day/evening/night) distribution for all aircraft categories was derived from 365 days (CY 2002) of data from the airport’s Global Environment Management System (GEMS). GEMS is a flight track and noise monitoring system. Overall, 7% of the flight operations occur during the evening (7:00 p.m. to 10:00 p.m.) period and 3% occur during the nighttime (10:00 p.m. to 7:00 a.m.) period.

While researching the number of aircraft operations, the make and model of aircraft used in these operations were also identified for the development of a fleet mix. Fleet mix refers to the various types of aircraft operating at CRQ and included very specific information such as engine type, FAR Part 36 Noise Stage Certification and gross weight. See section 5.5 for more information on Noise Stage Certification.

The numbers of departures, arrivals, and training or touch-and-go (TNG) operations were estimated by CRQ. Nearly 58,000 operations are training or TNG operations, i.e., flights in the local traffic patterns. Each TNG is counted as two operations. The operation numbers and fleet mix for the 2004 NEM were developed from CRQ airport records (including tracking data described below in the Flight Tracks section), air taxi schedules (i.e., Official Airline Guide data), FAA ATCT records, and interviews with Fixed Base Operators (FBOs) at CRQ.

Using the ATCT counts, the operations were distributed into FAA-style categories – Air Carrier, Air Taxi, General Aviation (GA), and Military. The operations were also distributed by flight rule in effect – Instrument Flight Rules (IFR) or Visual Flight Rules (VFR). No Air Carrier (greater than 60 seats) operations were recorded. Annual Air Taxi operations totaled nearly 13,000, primarily by America West and United Express. With approximately 126,000 operations, itinerant GA operations outnumbered local GA operations by a ratio of approximately two to one. Annual Military operations, primarily from aircraft based at nearby MCAS Camp Pendleton and/or Miramar, numbered nearly 2,000. Each category is discussed in further detail in Sections 5.1.1, 5.1.2, and 5.1.3.

Application of the fleet mix to the average daily aircraft operations figures produced the number of average daily operations by aircraft type.
Table 5-1
Summary of Modeled Annual Flight Operations for 2004 NEM

<table>
<thead>
<tr>
<th>Category</th>
<th>IFR or VFR</th>
<th>Departure</th>
<th>Arrival</th>
<th>Touch and Go¹</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>Air Carrier</td>
<td>both</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Air Taxi</td>
<td>both</td>
<td>5,443</td>
<td>836</td>
<td>291</td>
<td>6,570</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,353</td>
<td>759</td>
<td>458</td>
<td>6,570</td>
</tr>
<tr>
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<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10,796</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,595</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>749</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13,140</td>
</tr>
<tr>
<td>GA Itinerant</td>
<td>IFR</td>
<td>14,094</td>
<td>605</td>
<td>459</td>
<td>15,158</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13,635</td>
<td>1,062</td>
<td>457</td>
<td>15,154</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>27,729</td>
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<td></td>
<td></td>
<td></td>
<td>1,667</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
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<td>916</td>
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<td></td>
<td></td>
<td></td>
<td>30,312</td>
</tr>
<tr>
<td>GA Local</td>
<td>VFR</td>
<td>7,020</td>
<td>300</td>
<td>226</td>
<td>7,546</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6,798</td>
<td>528</td>
<td>226</td>
<td>7,552</td>
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<td>13,818</td>
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<td>828</td>
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<td>452</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15,098</td>
</tr>
<tr>
<td>GA Itinerant</td>
<td>VFR</td>
<td>31,236</td>
<td>1,343</td>
<td>1,009</td>
<td>33,588</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30,228</td>
<td>2,352</td>
<td>1,008</td>
<td>33,588</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26,197</td>
<td>2,016</td>
<td>576</td>
<td>28,789</td>
</tr>
<tr>
<td></td>
<td></td>
<td>87,661</td>
<td>5,711</td>
<td>2,593</td>
<td>95,965</td>
</tr>
<tr>
<td>GA Local</td>
<td>VFR</td>
<td>8,896</td>
<td>383</td>
<td>287</td>
<td>9,566</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8,608</td>
<td>670</td>
<td>286</td>
<td>9,564</td>
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<tr>
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<td></td>
<td>26,108</td>
<td>2,008</td>
<td>574</td>
<td>28,690</td>
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<tr>
<td></td>
<td></td>
<td>43,612</td>
<td>3,061</td>
<td>1,147</td>
<td>47,820</td>
</tr>
<tr>
<td>Military</td>
<td>both</td>
<td>536</td>
<td>228</td>
<td>0</td>
<td>764</td>
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<tr>
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<td></td>
<td></td>
<td>305</td>
<td>131</td>
<td>0</td>
<td>436</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>1,377</td>
</tr>
<tr>
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<td>587</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,964</td>
</tr>
<tr>
<td>Total</td>
<td>IFR</td>
<td>67,225</td>
<td>3,695</td>
<td>2,272</td>
<td>73,192</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65,158</td>
<td>5,599</td>
<td>2,435</td>
<td>73,192</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52,610</td>
<td>4,155</td>
<td>1,150</td>
<td>57,915</td>
</tr>
<tr>
<td></td>
<td></td>
<td>184,993</td>
<td>13,449</td>
<td>5,857</td>
<td>204,299</td>
</tr>
</tbody>
</table>

¹Touch and Go counted as 2 operations each.
*Total may not match the detailed table due to rounding.

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: URS Analysis
5.1.1 Air Taxi

Table 5-2 lists the detailed distribution of annual Air Taxi flight operations among representative INM aircraft types, operational mode, and CNEL time period. Numbers of Air Taxi operations were primarily based on data from the Official Airline Guide (OAG) and interviews with America West and United Express, which fly DeHavilland DHC-8 and Embraer EMB-120 twin turboprops, respectively. Per the OAG, annual operations by these two operators at CRQ in CY 2002 totaled nearly 5,700.

In addition to scheduled carriers of America West and United Express, the remaining 7,500 (approximate) annual Air Taxi operations also include “fractional ownership” operators such as NetJets and Bombardier FlexJet. The entire list of fractional operators composing this portion of the Air Taxi fleet at CRQ is shown in Table 5-2. The fleet mix of the fractional operators was based on a contiguous two-week sample of March 2003 ATCT Flight Progress Strips (Strips) provided by the FAA via a Freedom of Information Act (FOIA) request comprising 2,163 records for the period of March 9, 2003 through March 23, 2003. The aircraft types listed on these Strips were mapped to representative INM types using the table shown in Table D-2 of Appendix D.

It was assumed Air Taxi operators do not conduct any TNG operations at CRQ. Overall, 12% and 6% of the Air Taxi flight operations are conducted during the CNEL evening and nighttime periods, respectively.

5.1.2 General Aviation

GA operations were separated into IFR and VFR flights.

5.1.2.1 Instrument Flight Rule (IFR) Flights

From ATCT counts, 24% of the total GA operations were IFR in CY 2002. Table 5-3 shows the detailed distribution of annual GA IFR operations among representative INM aircraft types, operational mode, and CNEL time period. The GA IFR fleet mix, as derived from the two-week sample of Strips (introduced in Section 5.1.1) is composed of large and small corporate jets, single and twin turboprop and propeller-driven aircraft, and helicopters. The jets comprise 36% of GA IFR flight operations, 3% of which are noise Stage 2 (noisier) types (i.e., LEAR25, GIIB, FAL20). The single-engine propeller-driven aircraft and helicopters comprise 62% and 2% of the GA IFR operations, respectively.

The two-week Strips database was compared to a four-month sample of January 2003 through April 2003 FlightVue data obtained from CRQ’s JetSource FBO. The FlightVue data sample yielded 57% jet operations with 4% being noisier Stage 2 types. It is believed the FlightVue data is geared more towards corporate aviation, which would tend to be more jet-oriented. Therefore, the two-week sample of Strips is a better representation of average CRQ operations than the FlightVue data fleet mix.
**Table 5-2**  
Annual Air Taxi Flight Operations for 2004 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Jet</td>
<td></td>
</tr>
<tr>
<td>CL600</td>
<td>265 23 9 297 Day Evening Night Total</td>
</tr>
<tr>
<td>CL601</td>
<td>33 3 1 37 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA500</td>
<td>133 12 5 150 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA750</td>
<td>365 32 13 410 Total</td>
</tr>
<tr>
<td>GIB</td>
<td>66 6 2 74 Day Evening Night Total</td>
</tr>
<tr>
<td>GIV</td>
<td>133 12 5 150 Day Evening Night Total</td>
</tr>
<tr>
<td>LEAR35</td>
<td>1,161 102 40 1,303 Day Evening Night Total</td>
</tr>
<tr>
<td>MU3001</td>
<td>696 61 24 781 Day Evening Night Total</td>
</tr>
<tr>
<td>Business Jet</td>
<td></td>
</tr>
<tr>
<td>CL601</td>
<td>275 14 9 298 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA500</td>
<td>138 7 4 149 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA750</td>
<td>378 19 12 409 Day Evening Night Total</td>
</tr>
<tr>
<td>GIB</td>
<td>69 4 2 75 Day Evening Night Total</td>
</tr>
<tr>
<td>GIV</td>
<td>138 7 4 149 Day Evening Night Total</td>
</tr>
<tr>
<td>LEAR35</td>
<td>1,204 61 38 1,303 Day Evening Night Total</td>
</tr>
<tr>
<td>MU3001</td>
<td>722 37 23 782 Day Evening Night Total</td>
</tr>
<tr>
<td>Business Jet</td>
<td></td>
</tr>
<tr>
<td>CL601</td>
<td>540 37 18 595 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA500</td>
<td>271 19 9 299 Day Evening Night Total</td>
</tr>
<tr>
<td>CNA750</td>
<td>743 51 25 819 Day Evening Night Total</td>
</tr>
<tr>
<td>GIB</td>
<td>135 10 4 149 Day Evening Night Total</td>
</tr>
<tr>
<td>GIV</td>
<td>271 19 9 299 Day Evening Night Total</td>
</tr>
<tr>
<td>LEAR35</td>
<td>2,365 163 78 2,606 Day Evening Night Total</td>
</tr>
<tr>
<td>MU3001</td>
<td>1,418 98 47 1,563 Day Evening Night Total</td>
</tr>
<tr>
<td>DHC6</td>
<td></td>
</tr>
<tr>
<td>DHC8(^1)</td>
<td>33 3 1 37 Day Evening Night Total</td>
</tr>
<tr>
<td>DHC8(^2)</td>
<td>475 310 785 423 361 784 Day Evening Night Total</td>
</tr>
<tr>
<td>EMB120(^2)</td>
<td>1,562 157 343 2,062 Day Evening Night Total</td>
</tr>
<tr>
<td>Twin Piston Prop</td>
<td></td>
</tr>
<tr>
<td>BEC58P</td>
<td>298 26 10 334 Day Evening Night Total</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td></td>
</tr>
<tr>
<td>MU3001</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. America West only.
2. United Express only.

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

### Table 5-3
Annual IFR (Local and Itinerant)
General Aviation Flight Operations for 2004 NEM

| Aircraft Category | Representative INM Aircraft Type | Arrival | | | Departure (Stage Length 1 (0-900nm)) | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Day | Evening | Night | Total | Day | Evening | Night | Total | Day | Evening | Night | Total |
| Regional Jet | CL600 | 817 | 63 | 27 | 907 | 845 | 36 | 27 | 908 | 1,662 | 99 | 54 | 1,815 |
| | CNA500 | 1,431 | 111 | 48 | 1,590 | 1,478 | 63 | 48 | 1,589 | 2,909 | 174 | 96 | 3,179 |
| | CNA750 | 409 | 32 | 14 | 455 | 422 | 18 | 14 | 454 | 831 | 50 | 28 | 909 |
| | FAL20 | 204 | 16 | 7 | 227 | 211 | 9 | 7 | 227 | 415 | 25 | 14 | 454 |
| | GIIB | 204 | 16 | 7 | 227 | 211 | 9 | 7 | 227 | 415 | 25 | 14 | 454 |
| | GIV | 613 | 48 | 21 | 682 | 634 | 27 | 21 | 682 | 1,247 | 75 | 42 | 1,364 |
| | GV | 204 | 16 | 7 | 227 | 211 | 9 | 7 | 227 | 415 | 25 | 14 | 454 |
| | IA1125 | 204 | 16 | 7 | 227 | 211 | 9 | 7 | 227 | 415 | 25 | 14 | 454 |
| | LEAR25 | 204 | 16 | 7 | 227 | 211 | 9 | 7 | 227 | 415 | 25 | 14 | 454 |
| | LEAR35 | 1,839 | 143 | 61 | 2,043 | 1,900 | 82 | 61 | 2,043 | 3,739 | 225 | 122 | 4,064 |
| | MU3001 | 1,226 | 96 | 41 | 1,363 | 1,266 | 54 | 41 | 1,361 | 2,492 | 150 | 82 | 2,724 |
| Business Jet | CNA441 | 613 | 48 | 21 | 682 | 634 | 27 | 21 | 682 | 1,247 | 75 | 42 | 1,364 |
| | DHC6 | 1,022 | 79 | 34 | 1,135 | 1,066 | 45 | 34 | 1,135 | 2,078 | 124 | 68 | 2,270 |
| Twin Turboprop | BEC58P | 2,044 | 159 | 68 | 2,271 | 2,111 | 90 | 69 | 2,270 | 4,155 | 249 | 137 | 4,541 |
| Twin Piston Prop | CNA172 | 3,269 | 255 | 109 | 3,633 | 3,378 | 145 | 109 | 3,632 | 6,647 | 400 | 218 | 7,265 |
| Single Prop | CNA206 | 1,635 | 127 | 54 | 1,816 | 1,689 | 73 | 55 | 1,817 | 3,324 | 200 | 109 | 3,633 |
| | GASEPF | 2,451 | 190 | 82 | 2,723 | 2,534 | 109 | 82 | 2,725 | 4,985 | 299 | 164 | 5,448 |
| | GASEPV | 1,635 | 127 | 54 | 1,816 | 1,690 | 73 | 54 | 1,817 | 3,325 | 200 | 108 | 3,633 |
### Table 5-3 (continued)
#### General Aviation Flight Operations for 2004 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Departure (Stage Length 1 [0-500nm])</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
</tr>
<tr>
<td>Helicopter</td>
<td>H500D¹</td>
<td>164</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>H500D²</td>
<td>221</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
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<td>H500D³</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td></td>
<td>B206L⁴</td>
<td>8</td>
<td>1</td>
<td>9</td>
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<tr>
<td></td>
<td>SA365N⁵</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>H500D⁶</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B222⁷</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SA350D⁸</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>20,433</strong></td>
<td><strong>1,590</strong></td>
<td><strong>683</strong></td>
</tr>
</tbody>
</table>

**Notes:**

1. Represents Civic Helicopters' Robinson R22BII
2. Represents Civic Helicopters' Schweitzer S300C
3. Represents Civic Helicopters' MD500D
4. Represents Civic Helicopters' Bell 206BIII
5. Represents Civic Helicopters' Eurocopter EC120
6. Represents Civic Helicopters' future MD900
7. Represents Mercy Flite Bell 222
8. Represents Mercy Flite future Aerospatiale AS350 A-star

*Each closed pattern evolution counted as 2 operations*

- **Day** = 7:00 a.m. to 7:00 p.m.
- **Evening** = 7:00 p.m. to 10:00 p.m.
- **Night** = 10:00 p.m. to 7:00 a.m.

**Sources:** Derived from 2-week sample of flight progress strips; Civic Helicopters 2003; Mercy Flight, 2003; URS analysis, 2004.
The helicopter fleet mix was derived from interviews with two primary helicopter operators at CRQ – Civic Helicopters and Mercy Flite. Civic Helicopters generates 98% of the GA IFR helicopter operations.

It was assumed that none of the GA IFR flight operations generated TNG operations. In accordance with CRQ currently voluntary noise abatement policy and because of the potential for air traffic congestion, TNG operations by jets are discouraged and therefore were not modeled.

5.1.2.2 Visual Flight Rule (VFR) Flights

VFR flight operations comprise the remaining 76% of the total GA flight operations. Table 5-4 shows the detailed distribution of annual GA VFR operations among representative INM aircraft types, operational mode, and CNEL time period. CRQ provided the distribution of these operations among the aircraft categories and types, separately for arrivals/departures and TNG. GA VFR flight operations consist of single and twin propeller-driven (turboprop and piston) aircraft (80%) and helicopters (20%).

Identical to the GA IFR operations, the helicopter fleet mix was derived from interviews with two primary helicopter operators at CRQ – Civic Helicopters and Mercy Flite. Civic Helicopters generates 98% of the GA VFR helicopter operations.

It was assumed that 30% of GA Itinerant VFR operations were TNG, providing a ratio of less than one TNG per GA Itinerant VFR departure, on average. It was also assumed that 60% of GA Local VFR operations were TNG, providing a ratio of nearly 3 TNGs per GA Local VFR departure, on average.

5.1.3 Military

Military aircraft from nearby installations have the County’s approval to operate at CRQ, albeit on a limited basis regarding practice approaches (CRQ, 2004). Table 5-5 shows the detailed distribution of annual Military flight operations among representative INM aircraft types, operational mode, and CNEL time period, as provided by CRQ. Jet C9, turboprop C12, and helicopters comprise 9%, 45% and 37% of the Military flight operations, respectively. The total operations of 1,964 were comprised of missed approaches for all military aircraft types except the C12. In addition to full-stop landings, the C12 conducts approximately two TNG per departure. Besides the C12, all other aircraft each conducted approximately two operations, every four days on average, except for the CH-53E (large helicopter), which conducted two operations every other day on average. All aircraft were assumed to have the following temporal distribution: 70% daytime, 30% evening, 0% nighttime.
### Table 5-4
Annual VFR (Local and Itinerant)
General Aviation Flight Operations for 2004 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Training (closed patterns*)</th>
<th>Departure Stage Length 1 (0-500nm)</th>
<th>Grand Total</th>
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<td>SA365N6</td>
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<tr>
<td>Twin Piston Prop</td>
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### Table 5-4 (continued)
**Annual VFR (Local and Itinerant)**
**General Aviation Flight Operations for 2004 NEM**

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<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
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<th></th>
<th>Training (closed patterns*)</th>
<th>Departure Stage Length 1 (0-500nm)</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
<td>Day</td>
<td>Evening</td>
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<td>INM Aircraft</td>
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<td>43,153</td>
<td>52,305</td>
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<td>5</td>
<td>172</td>
<td>314</td>
<td>24</td>
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<td></td>
<td>SA350D8</td>
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<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>38,836</td>
<td>3,022</td>
<td>1,295</td>
<td>43,153</td>
<td>52,305</td>
<td>4,024</td>
</tr>
</tbody>
</table>

Notes:
1. Represents Civic Helicopters' Robinson R22BII
2. Represents Civic Helicopters' Schweitzer S300C
3. Represents Civic Helicopters' MD500D
4. Represents Civic Helicopters' Bell 206BIII
5. Represents Civic Helicopters' Eurocopter EC120
6. Represents Civic Helicopters' future MD900
7. Represents Mercy Flite Bell 222
8. Represents Mercy Flite future Aerospatiale AS350 A-star

*Each closed pattern evolution counted as 2 operations*

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: CRQ estimates; ATCT records
### Table 5-5

**Annual Military Flight Operations for All NEMs**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival ¹</th>
<th>Touch and Go</th>
<th>Departure ¹</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
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<td>91</td>
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<td></td>
<td>C12</td>
<td>152</td>
<td>65</td>
<td>-</td>
<td>217</td>
</tr>
<tr>
<td>Twin Piston Prop</td>
<td></td>
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</tr>
<tr>
<td>Single Prop</td>
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<td>183</td>
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<td></td>
<td>SA341G³</td>
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<td>91</td>
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<td>Total</td>
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<td>536</td>
<td>228</td>
<td>0</td>
<td>764</td>
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</table>

Notes:

1. Represents only Practice Approach (arrival and departure segments) for all except C12; Only C12 conducts full-stop landings;
2. Represents C-2 Greyhound
3. Represents OH-58 Kiowa
4. Represents H-60 Blackhawk

*Each closed pattern evolution counted as 2 operations*

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: CRQ and ATCT estimates
5.2 RUNWAY AND HELIPAD UTILIZATION

Utilization of runways is described in terms of the percentage of occurrence of fixed-wing flight operations on each runway. Although the FAA controls runway use, it does not keep records of past usage. Runway utilization by CNEL time period was directly obtained from the full year (CY 2002) sample of CRQ’s GEMS data. Appendix D discusses the GEMS data in further detail. Table 5-6 contains the average daily runway utilization for fixed-wing aircraft. Table 5-6 shows that 97% of all flight operations recorded by GEMS occurred on Runway 24. This trend applies to daytime and evening periods and is consistent with CRQ policy designating Runway 24 as the calm wind runway. During the nighttime, 88% of the flight operations utilized Runway 24. These percentages were applied to all categories of aircraft and modeled aircraft types.

Runway use is not applicable to most helicopter operations at CRQ. Helicopters, especially ones based at CRQ, primarily utilize ‘pads’ or spots on the airfield to depart and land. Although CRQ’s Airport Layout Plan (ALP) identifies four helicopter pad (helipad) areas, including the area adjacent to Civic Helicopters (Civic pad) and one immediately south of Taxiway A towards the west end of the airfield (Mercy pad), all helicopter flight operations were conservatively modeled as only using the Mercy pad. This was a conservative simplification because: 1) noise exposure of helicopter arrivals can be greater than departures and 2) the modeled altitude for helicopter arrivals from the south (to the Mercy pad) is effectively lower than the arrival altitudes for actual helicopters landings to the Civic pad.

Table 5-6
Average Daily Runway Utilization

<table>
<thead>
<tr>
<th>Runway</th>
<th>Percent Utilization</th>
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<tbody>
<tr>
<td></td>
<td>Day</td>
</tr>
<tr>
<td>06</td>
<td>3%</td>
</tr>
<tr>
<td>24</td>
<td>97%</td>
</tr>
</tbody>
</table>

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
Source: GEMS

5.3 FLIGHT TRACKS AND TRACK UTILIZATION

Section 5.3.1 discusses flight tracks and Section 5.3.2 discusses utilization of said flight tracks.

5.3.1 Flight Tracks

Flight tracks are graphic depictions of the paths aircraft fly in relation to the ground or, as defined by the FAA in the Aeronautical Information Manual (AIM), the actual flight path of an aircraft over the surface of the earth. Unlike other modes of transportation, aircraft have the freedom to travel over virtually unlimited paths above the earth’s surface. In comparison, cars and trains must follow narrowly defined paths. On approach, aircraft flight paths must line up with the runway for landing and track straight out from the runway on
departure until airspeed, altitude, or local procedures permit the aircraft to change course or direction. These operating procedures are designed for the safe and efficient operation of aircraft.

Like many airports in the U.S. that have a well-established general aviation community, flight training is conducted at CRQ. As part of flight training, a maneuver commonly known as a TNG is performed and practiced. A TNG is comprised of the following steps: a) an approach to the runway; b) a landing where the aircraft’s wheels may “touch” the runway; c) a climbing departure from the runway (the “go” portion”) and d) entry into the airport’s local traffic pattern. The majority of the time this maneuver is practiced repeatedly with the aircraft in relatively close proximity to the airport while airborne. During periods when the airport’s ATCT is operating, aircraft practicing this maneuver will be under the control of the ATCT. The TNG flight tracks developed reflect the performance of those aircraft known to conduct this type of operation and based on the GEM’s data. These flight paths resemble racetrack ovals when viewed from above.

Figure 5-1 shows the modeled departure flight tracks. Figure 5-2 shows the modeled arrival and practice missed approach flight tracks. Figure 5-3 shows the modeled TNG flight tracks for existing conditions at CRQ. Helicopter tracks (depicted as green) are differentiated from fixed-wing tracks. The fixed-wing tracks are differentiated by runway. Runway 24 tracks are in depicted in shades of red and Runway 06 tracks are depicted in shades of blue. The tracks shown in the figures are based on a detailed analysis of the full year of CY 2002 CRQ GEMS flight operations density maps described in Appendix D. From the trends shown in the flight operations density maps, nominal flight tracks were determined and input into INM. Evidenced by the maps of Appendix D, aircraft do not always fly the nominal flight tracks. Nominal tracks are intended to represent the generalized flight paths within specific corridors.

Deviations from nominal flight tracks occur due to weather, pilot technique, ATC procedures, and aircraft weight. To compensate for these deviations, INM allows for flight track dispersal. Up to a maximum of nine dispersed tracks (one backbone track plus eight sub-tracks) may be generated to represent a flight corridor. In this study effort, the military flights had a high degree of dispersion and were therefore modeled with dispersion. Although the civilian operations also deviated from the nominal flight tracks, they did so to a lesser degree than the military tracks. Thus, modeling civilian dispersion did not seem reasonable. Four dispersed tracks (in addition to the backbone center flight track) were used to represent each of the departure portions of the military’s practice approach flights, as appropriate. They consisted of one backbone carrying 39% of the total track operations and four sub-tracks, the outboard ones each carrying 6.5% of track’s total operations, and the inboard ones each carrying 24% of the track’s total operations. In Figure 5-2, the modeled practice approach tracks are shown in beige/orange.

The numbers of weighted average daily modeled flight operations on each individual modeled flight track is also depicted in the figures via the tracks’ line thickness². The weighting applied to the average daily flight operations simulates the penalties imposed by the CNEL metric. Evening operations were multiplied by three and nighttime operations were multiplied by 10 to approximate CNEL’s 5 dBA and 10 dBA evening and nighttime penalties, respectively.

² The weighted daily operation ranges (and therefore the line thicknesses) are not cumulative for tracks or track segments which overlay each other.
CRQ currently has voluntary noise abatement procedures relative to flight tracks (County of San Diego, 2002). Jets are requested to fly the ILS approach, which is essentially a straight-in flight track to Runway 24. This track is evident in Figure 5-2, as are the published VOR and GPS approaches. A current noise abatement departure procedure for Runway 24 is for aircraft to fly a 250 degree heading (relative to magnetic north) departing Runway 24 until 1.5 miles past the shoreline. Furthermore, the procedures request jets to maintain this heading until two miles from brake release. Likewise, aircraft departing Runway 06 are requested to maintain a 50 degree magnetic heading.

5.3.2 Flight Track Utilization

Similar to runway utilization, flight track utilization is defined in terms of usage percentages of operations by each aircraft type for each modeled flight track. The flight operations density map data output by GEMS provided the basis for flight track usage estimates. Percentages were determined separately for each CNEL time period (day, evening, and nighttime).

Tables 5-7 through 5-9 list the flight track utilization percentages for civilian fixed-wing aircraft. Daytime and evening departures from Runway 24 primarily use tracks 24D1 through 24D8 whereas Runway 24 nighttime departures use tracks 24D9 through 24D11. Most Runway 24 arrivals use track 24A1 (straight-in). Most daytime Runway 24 training pattern flights use track 24T1 whereas evening and nighttime training pattern flights use tracks 24T4 and 24T6, respectively.

Table 5-8 contains the flight track utilization percentages for civilian rotary-wing (helicopter) aircraft. For departures, track utilization was the same among all modeled flight tracks. Arrivals were split into regular and Mercy arrivals. Mercy arrivals were assigned to only one track (H12A1). For regular arrivals, the daytime flight track utilization was the same among all modeled flight tracks but the evening and nighttime utilization percentages were different. As all helicopter training activity was primarily confined to one flight area, the flight operations were assigned to one flight track (H8T1) originating from the practice helipads north of Runway 06/24.

Table 5-9 details the flight track utilization percentages for military practice approach flight operations. The Military aircraft conducting practice approaches primarily use track 24V3 during the daytime and evening periods but primarily use 24V2 during the nighttime.

5.4 RUN-UP OPERATIONS

Prior to flight or during maintenance, aircraft engines at CRQ are sometimes run to check their operation. Engine runs, simply called run-ups, are typically cyclic, i.e., power/throttle is increased and decreased, and can last on the order of minutes. Run-ups at CRQ are performed with the engine installed on the aircraft (“in-frame” run-up) as opposed to some airports that also perform run-ups with the engine not installed on the aircraft (“out-of-frame” run-up). At large busy airports maintenance is often performed at nighttime, however, at CRQ, maintenance run-ups only occur during the daytime.

Table 5-10 lists the modeled average daily run-up operations for the existing condition as derived from interview of CRQ staff. Table 5-10 only contains pre-flight run-ups. Pre-flight run-ups are performed at the hold-short areas of Runways 06 and 24 during daytime, evening, and nighttime period periods per the runway utilization percentages. All run-ups at CRQ are typically conducted by light twin
(piston/turboprop) and single piston/turboprop aircraft at a rate of one run-up per flight operation. Although the run-ups are conducted at high power, they last no more than 15 seconds each and are primarily during the daytime period. Approximately four brief pre-flight run-ups, on average, are conducted every night.

Table 5-7
Civilian Fixed-Wing Aircraft Flight Track Utilization for All NEMs *

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<td><strong>Total</strong></td>
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Table 5-7 (continued)
Civilian Fixed-Wing Aircraft Flight Track Utilization for All NEMs *

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<th>Operation Type</th>
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<th>Percent Utilization</th>
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<td>30%</td>
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<td>30%</td>
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<td></td>
<td></td>
<td>24T5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24T6</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Touch and Go</td>
<td>06</td>
<td>06T1</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>06T2</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

* Except Military aircraft performing missed approaches; also applies to Military C12
Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
Source: GEMS
Table 5-8
Civilian Rotary-Wing Aircraft Flight Track Utilization for All NEMs

<table>
<thead>
<tr>
<th>Operation Type</th>
<th>Helo pad</th>
<th>Track ID</th>
<th>Percent Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Day</td>
</tr>
<tr>
<td>Departure</td>
<td>H1</td>
<td>H1D1</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H1D2</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>H3</td>
<td>H3D1</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H3D2</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Arrival*</td>
<td>H12</td>
<td>H12A2</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H12A3</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H12A4</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H12A5</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H12A6</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Mercy (Hospital) Arrivals</td>
<td>H12</td>
<td>H12A1</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Touch and Go</td>
<td>H8</td>
<td>H8T1</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
Source: GEMS
*Arrivals conservatively modeled to single helicopter pad.
### Table 5-9
**Military Aircraft Practice Approach Flight Track Utilization for All NEMs**

<table>
<thead>
<tr>
<th>Aircraft Group</th>
<th>Runway</th>
<th>Track ID</th>
<th>Percent Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Day</td>
</tr>
<tr>
<td>Helicopter</td>
<td>24</td>
<td>24V1</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V2</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V3</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V4</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
<tr>
<td>C9 and C2</td>
<td>24</td>
<td>24V1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V2</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V3</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24V4</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

*Day = 7:00 a.m. to 7:00 p.m.*  
*Evening = 7:00 p.m. to 10:00 p.m.*  
*Night = 10:00 p.m. to 7:00 a.m.*  
*Source: GEMS*

---

### Table 5-10
**Run-Up Operations for 2004 NEM**

<table>
<thead>
<tr>
<th>Aircraft Group</th>
<th>Representative INM Aircraft Type</th>
<th>Location</th>
<th>Heading (degrees, true North)</th>
<th>Power Setting (% RPM)</th>
<th>Annual Single-engine Run-up Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Duration (Seconds)</td>
</tr>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 06 hold-short</td>
<td>60</td>
<td>100</td>
<td>15.0</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td>Runway 24 hold-short</td>
<td>210</td>
<td>100</td>
<td>15.0</td>
</tr>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 06 hold-short</td>
<td>60</td>
<td>100</td>
<td>15.0</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td>Runway 24 hold-short</td>
<td>240</td>
<td>100</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

*Source: URS Analysis*
5.5 AIRCRAFT NOISE AND PERFORMANCE

Specific noise and performance data must be entered into INM for each representative aircraft type modeled at CRQ. Noise data is in terms of Sound Exposure Level (SEL) for a range of distances (from 200 feet to 25,000 feet) from each aircraft with engines at a specific thrust/power level. Performance data includes thrust/power setting, speed, and altitude profiles (i.e., as a function of traveled distance) for departure and arrival operations. Aircraft manufacturers provide the data to the FAA. The INM database contains standard noise and performance data for over 200 fixed-wing aircraft types, most of which are civilian aircraft. INM also has the capability for over 260 FAA pre-approved substitutions for aircraft that are not specifically defined in the standard database. INM automatically accesses the applicable noise and performance data for departure and approach operations by those aircraft. For aircraft not included in the database, such as some helicopters or for non-standard operations (e.g., practice approaches), the data must be manually entered into INM.

In the U.S., aircraft are subject to Federal requirements limiting noise emissions under 14 CFR Part 36 – Noise Standards: Aircraft Type and Airworthiness Certification. The standards described in these regulations identify three noise standards, called stages. These stages are progressively more restrictive beginning with Stage 1 the loudest and ending with Stage 3 the quietest. Operating limits and compliance for civilian subsonic aircraft with maximum weights of more than 75,000 pounds for each noise stage are identified in 14 CFR Part 91-Subpart I: Operating Noise Limits. Part 91 states, “… on and after January 1, 1985, no person may operate to or from an airport in the United States any subsonic airplane covered by this subpart unless that airplane has been shown to comply with Stage 2 or Stage 3 noise levels.” Since the adoption of this legislation, commercial aircraft operators have replaced older noise stage aircraft with newer aircraft that comply with the regulation or have retrofitted the aircraft with modified engines and airframe components. 14 CFR Part 91-§ 91.853 reads in part as follows: “Except as provided in § 91.873, after December 31, 1999, no person shall operate to or from the contiguous United States any airplane subject to § 91.801(c) of this subpart, unless that airplane has been shown to comply with Stage 3 noise levels.”

Currently, the commercial operators utilize aircraft that are Stage 3 compliant. However, it should be noted that the military operations are exempt from the aforementioned regulations and corporate jet aircraft weighing less than 75,000 pounds, some of which are noise Stage 2, are also exempt.

See Section 2 and Appendix E for discussion of flight profiles relevant to this NEM. INM standard default profiles were primarily utilized except for operator-provided INM user-defined flight profiles for helicopters and military aircraft, which were approved by the FAA’s Office of Environment and Energy in a letter dated February 12, 2004. A copy of the letter is included in Appendix E. It was not assumed that the modeled aircraft were flying the voluntary noise abatement procedures (County of San Diego, 2002).

5.6 AIRCRAFT NOISE CONTOURS

Figure 5-4 is the 2004 NEM. It presents the CNEL contours superimposed over the existing land use base map. The 60 CNEL contour is shown as a dashed line and extends approximately 8,000 feet west of Runway 06 and approximately 8,400 feet east of Runway 24. Except for the bulge in the 60 CNEL primarily attributed to westerly departures from Runway 24, the maximum north/south extent of the 60
CNEL is approximately 1,500 feet relative to Runway 06-24. The 65 CNEL extends approximately 4,600 feet to the west of Runway 06 and approximately one (statute) mile east of Runway 24. The maximum north/south extent of the 65 CNEL contour is approximately 900 feet relative to Runway 06-24. The 60 CNEL (and 65 CNEL) contours are wholly contained within the City.

The aircraft noise exposure east of CRQ is primarily due to Runway 24 arrival/practice approach traffic. Conversely, the aircraft noise exposure west of CRQ is primarily due to Runway 24 departure traffic. The effect of helicopter operations on the CNEL contours are evidenced by the south-pointing ripples in the contours located near the middle of the airfield.

### 5.7 LAND USE COMPATIBILITY

As indicated in Tables 5-11 and 5-12, there are currently no noise sensitive land uses (residences, healthcare facilities, etc.) that exist within the 65 or greater CNEL contour. Although there are approximately 78 residential homes within the 60 to 64 CNEL contour and approximately three hotels (the Olympic Resort Hotel and Spa at El Camino Real and Palomar Airport Road; the Grand Pacific Resort and Hotel at Armada Drive and Palomar Airport Road; and the Courtyard by Marriot between Owens Road and Palomar Airport Road) within or immediately adjacent to the 60 to 64 CNEL contour, these land uses are not considered non-compatible.

##### Table 5-11

<table>
<thead>
<tr>
<th>Land Use</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>Greater than or Equal to 75</th>
<th>Total Within 65 dBA CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>93.2</td>
<td>6.7</td>
<td></td>
<td></td>
<td>6.7</td>
</tr>
<tr>
<td>Industrial</td>
<td>375.1</td>
<td>228.0</td>
<td>60.4</td>
<td>3.6</td>
<td>292.0</td>
</tr>
<tr>
<td>Open Space</td>
<td>176.4</td>
<td>6.0</td>
<td></td>
<td></td>
<td>6.0</td>
</tr>
<tr>
<td>Government Services</td>
<td>37.5</td>
<td>51.8</td>
<td>82.8</td>
<td>94.5</td>
<td>229.1</td>
</tr>
<tr>
<td>Residential</td>
<td>41.9</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Unplanned Area</td>
<td>11.5</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>735.6</strong></td>
<td><strong>292.5</strong></td>
<td><strong>143.2</strong></td>
<td><strong>98.1</strong></td>
<td><strong>533.8</strong></td>
</tr>
</tbody>
</table>

Source: SANDAG and URS inventory and analysis, 2004
### Table 5-12
Projected Sensitive Receivers
Within Identified 2004 NEM Noise Contours

<table>
<thead>
<tr>
<th>Receivers</th>
<th>CNEL (dBA)</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75 or greater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population**</td>
<td>267</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Residences**</td>
<td>96</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Churches</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Schools and Daycare Facilities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hospitals and other Healthcare Facilities (including Nursing Homes)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Parks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Using population year 2005 estimates.

Source: SANDAG and URS Inventory and analysis, 2004.
SECTION 6 NOISE EXPOSURE MAP FOR YEAR 2009 (UNMITIGATED)

Sections 6.1 through 6.4 discuss the operational information used to generate the Year 2009 Future Condition Noise Exposure Map (2009 NEM), presented in Section 6.5. Section 6.6 concludes the chapter with a quantification of non-compatible land use relative to the 2009 NEM.

6.1 FLIGHT OPERATIONS AND FLEET MIX

Table 6-1 presents a summary of the modeled flight operations, in terms of arrivals, departures and training operations. Table 1.7 of the Forecast contained in Appendix F predicts approximately 233,000 annual flight operations for the CY 2008 and nearly 260,000 annual flight operations for the CY 2013. Interpolating between CY 2008 and CY 2013, approximately 238,000 annual flight operations were modeled for the 2009 NEM and are shown in Table 6-1. Consistent with the forecast, Table 6-1 shows an increase in Air Taxi, GA Itinerant, GA Local flight operations by 23%, 15% and 19% relative to 2004, respectively. The forecast held Military flight operations at a constant tempo (1,964 flight operations annually). The temporal (day/evening/night) and operational distributions for all aircraft categories are identical to the 2004 case. Therefore, 7% of the flight operations would occur during the evening (7:00 p.m. to 10:00 p.m.) period and 3% would occur during the nighttime (10:00 p.m. to 7:00 a.m.) period.

The fleet mix forecast for CY 2008, as documented in Table 1.9 of the Forecast of Appendix F, was assumed to apply to 2009. Tables 6-1 through 6-4 detail the 2009 flight operations. Relative to 2004, the fleet mix would be identical except for helicopters, which would have phased out the Bell 222 aircraft and substituted it with the MD 902 and introduced the AS 350.

6.2 RUNWAY AND HELIPAD UTILIZATION, FLIGHT TRACKS, AND TRACK UTILIZATION

Relative to existing conditions, no changes are estimated for runway and helipad utilization, flight tracks and track utilization described in Sections 5.2 and 5.3. The modeling parameters applied to existing helicopter operations would apply to the 2009 helicopter fleet mix.

6.3 RUN-UP OPERATIONS

Corresponding to an increase in flight operations, the run-up operations for CY 2009 would also increase relative to 2004 conditions. Table 6-5 lists the modeled pre-flight run-up operations, which would be identical to 2004 conditions, except for a 16% increase in frequency.

6.4 AIRCRAFT NOISE AND PERFORMANCE

It was conservatively assumed that aircraft noise and performance in 2009 would be identical to existing conditions, although some decrease in noise levels are anticipated by the replacement of aging aircraft with newer stage 3 compliant GA and commercial aircraft. See Sections 2, 5.5 and Appendix E for discussion of flight profiles relevant to this NEM.
### Table 6-1
Summary of Modeled Annual Flight Operations for 2009 NEM

<table>
<thead>
<tr>
<th>Category</th>
<th>IFR or VFR</th>
<th>Departure</th>
<th>Arrival</th>
<th>Touch and Go¹</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Day</td>
</tr>
<tr>
<td>Air Carrier</td>
<td>both</td>
<td>6,699</td>
<td>1,028</td>
<td>355</td>
<td>8,082</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>both</td>
<td>16,190</td>
<td>699</td>
<td>522</td>
<td>17,411</td>
</tr>
<tr>
<td>GA Itinerant</td>
<td>IFR</td>
<td>8,328</td>
<td>360</td>
<td>268</td>
<td>8,956</td>
</tr>
<tr>
<td>GA Local</td>
<td>IFR</td>
<td>35,884</td>
<td>1,542</td>
<td>1,159</td>
<td>38,585</td>
</tr>
<tr>
<td>GA Itinerant</td>
<td>VFR</td>
<td>10,548</td>
<td>455</td>
<td>340</td>
<td>11,343</td>
</tr>
<tr>
<td>GA Local</td>
<td></td>
<td>536</td>
<td>228</td>
<td>0</td>
<td>764</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>78,185</td>
<td>4,312</td>
<td>2,644</td>
<td>85,141</td>
</tr>
</tbody>
</table>

¹Touch and Go counted as 2 operations each

Total may not match the detailed table due to rounding

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: Aviation Activity Forecast (URS, 2003); URS Analysis
### Table 6-2
Annual Air Taxi Flight Operations for 2009 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
</tr>
<tr>
<td>Regional Jet</td>
<td>CL600</td>
<td>328</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>CL601</td>
<td>41</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CNA500</td>
<td>164</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>451</td>
<td>40</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>GIBB</td>
<td>82</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GIV</td>
<td>164</td>
<td>14</td>
<td>6</td>
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<tr>
<td></td>
<td>LEAR35</td>
<td>1,436</td>
<td>127</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>861</td>
<td>76</td>
<td>30</td>
</tr>
<tr>
<td>Business Jet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CNA500</td>
<td>164</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>451</td>
<td>40</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>GIBB</td>
<td>82</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GIV</td>
<td>164</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>LEAR35</td>
<td>1,436</td>
<td>127</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>861</td>
<td>76</td>
<td>30</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td>DHC6</td>
<td>41</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DHC81</td>
<td>587</td>
<td>383</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>EMB1202</td>
<td>1,898</td>
<td>191</td>
<td>417</td>
</tr>
<tr>
<td>Twin Piston Prop</td>
<td>BEC58P</td>
<td>369</td>
<td>33</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>6,585</td>
<td>936</td>
<td>559</td>
</tr>
</tbody>
</table>

Notes:
1. America West only
2. United Express only
3. Types other than for America West and United Express only include: AmeriFlight (cargo), ExecJet (NetJets), Executive Jet Management, Global Airways, Bombardier Flexjet, Flight Options, Pacific Jet, Inc., Priester Aviation

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: Aviation Activity Forecast (URS, 2003); URS Analysis
### Table 6-3
**Annual IFR (Local and Itinerant)**

General Aviation Flight Operations for 2009 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival (Day)</th>
<th>Arrival (Evening)</th>
<th>Arrival (Night)</th>
<th>Arrival (Total)</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Jet</td>
<td>CL600</td>
<td>949</td>
<td>74</td>
<td>32</td>
<td>1,055</td>
<td>981</td>
<td>42</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>CNA500</td>
<td>1,661</td>
<td>129</td>
<td>56</td>
<td>1,846</td>
<td>1,716</td>
<td>74</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>474</td>
<td>37</td>
<td>15</td>
<td>526</td>
<td>491</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>FAL20</td>
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<td>264</td>
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<td>11</td>
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<tr>
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<td>GIIIB</td>
<td>238</td>
<td>18</td>
<td>8</td>
<td>264</td>
<td>245</td>
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<td>8</td>
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<tr>
<td></td>
<td>GIV</td>
<td>712</td>
<td>56</td>
<td>24</td>
<td>792</td>
<td>736</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>GV</td>
<td>238</td>
<td>18</td>
<td>8</td>
<td>264</td>
<td>245</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>IA1125</td>
<td>238</td>
<td>18</td>
<td>8</td>
<td>264</td>
<td>245</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>LEAR25</td>
<td>238</td>
<td>18</td>
<td>8</td>
<td>264</td>
<td>245</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>LEAR35</td>
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<td>166</td>
<td>71</td>
<td>2,372</td>
<td>2,207</td>
<td>95</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>1,424</td>
<td>111</td>
<td>47</td>
<td>1,582</td>
<td>1,471</td>
<td>63</td>
<td>47</td>
</tr>
<tr>
<td>Business Jet</td>
<td>CNA441</td>
<td>712</td>
<td>56</td>
<td>24</td>
<td>792</td>
<td>736</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>DHC6</td>
<td>1,186</td>
<td>92</td>
<td>39</td>
<td>1,317</td>
<td>1,225</td>
<td>53</td>
<td>39</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td>BEC58P</td>
<td>2,373</td>
<td>185</td>
<td>79</td>
<td>2,637</td>
<td>2,452</td>
<td>106</td>
<td>79</td>
</tr>
<tr>
<td>Twin Piston Prop</td>
<td>CNA172</td>
<td>3,796</td>
<td>295</td>
<td>127</td>
<td>4,218</td>
<td>3,923</td>
<td>168</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>CNA206</td>
<td>1,898</td>
<td>147</td>
<td>63</td>
<td>2,108</td>
<td>1,961</td>
<td>85</td>
<td>63</td>
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<tr>
<td></td>
<td>GASEPF</td>
<td>2,847</td>
<td>221</td>
<td>95</td>
<td>3,163</td>
<td>2,942</td>
<td>127</td>
<td>95</td>
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<tr>
<td></td>
<td>GASEPV</td>
<td>1,898</td>
<td>147</td>
<td>63</td>
<td>2,108</td>
<td>1,961</td>
<td>85</td>
<td>63</td>
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</table>
### Table 6-3 (continued)
**Annual IFR (Local and Itinerant)**

**General Aviation Flight Operations for 2009 NEM**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
</tr>
<tr>
<td>Helicopter</td>
<td>H500D¹</td>
<td>180</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>H500D²</td>
<td>261</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>H500D³</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>B206L⁴</td>
<td>9</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SA365N⁵</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>H500D⁶</td>
<td>9</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>B222⁷</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA350D⁸</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>23,729</td>
<td>1,843</td>
<td>790</td>
</tr>
</tbody>
</table>

**Notes:**

1. Represents Civic Helicopters’ Robinson R22BII
2. Represents Civic Helicopters’ Schweitzer S300C
3. Represents Civic Helicopters’ MD500D
4. Represents Civic Helicopters’ Bell 206BIII
5. Represents Civic Helicopters’ Eurocopter EC120
6. Represents Civic Helicopters’ future MD900
7. Represents Mercy Flite Bell 222
8. Represents Mercy Flite future Aerospatiale AS350 A-star

*Each closed pattern evolution counted as 2 operations*

- **Day** = 7:00 a.m. to 7:00 p.m.
- **Evening** = 7:00 p.m. to 10:00 p.m.
- **Night** = 10:00 p.m. to 7:00 a.m.

**Source:** Aviation Activity Forecast (URS, 2003); URS Analysis
### Table 6-4
Annual VFR (Local and Itinerant)
General Aviation Flight Operations for 2009 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Touch and Go (closed patterns* )</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>Regional Jet</td>
<td>CL600</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>CNA500</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>FAL20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GIIB</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GIV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GV</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>IA1125</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LEAR25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LEAR35</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Business Jet</td>
<td>CNA4441</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td>DHC6</td>
<td>449</td>
<td>35</td>
<td>15</td>
<td>499</td>
</tr>
<tr>
<td>Twin Piston Prop</td>
<td>BEC58P</td>
<td>449</td>
<td>35</td>
<td>15</td>
<td>499</td>
</tr>
<tr>
<td></td>
<td>CNA172</td>
<td>22,781</td>
<td>1,772</td>
<td>760</td>
<td>25,313</td>
</tr>
<tr>
<td></td>
<td>CNA206</td>
<td>12,267</td>
<td>954</td>
<td>409</td>
<td>13,630</td>
</tr>
<tr>
<td></td>
<td>GASEPF</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GASEPV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Single Prop</td>
<td>H5000D¹</td>
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<td>266</td>
<td>114</td>
<td>3,794</td>
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<tr>
<td></td>
<td>H5000D²</td>
<td>4,943</td>
<td>384</td>
<td>165</td>
<td>5,492</td>
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<tr>
<td></td>
<td>H5000D³</td>
<td>90</td>
<td>7</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>B206L4</td>
<td>180</td>
<td>14</td>
<td>6</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>SA365N²</td>
<td>90</td>
<td>7</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>
### Table 6-4 (continued)

#### Annual VFR (Local and Itinerant)

**General Aviation Flight Operations for 2009 NEM**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Touch and Go (closed patterns*)</th>
<th>Departure (Stage Length 1 (0-500nm))</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>INM Aircraft</td>
<td>H500D[^4]</td>
<td>180</td>
<td>14</td>
<td>6</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>B222[^7]</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA350D[^8]</td>
<td>90</td>
<td>7</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>44,932</td>
<td>3,495</td>
<td>1,499</td>
<td>49,926</td>
</tr>
</tbody>
</table>

**Notes:**

1. Represents Civic Helicopters' Robinson R22BII
2. Represents Civic Helicopters' Schweitzer S300C
3. Represents Civic Helicopters' MD500D
4. Represents Civic Helicopters' Bell 206BIII
5. Represents Civic Helicopters' Eurocopter EC120
6. Represents Civic Helicopters' future MD900
7. Represents Mercy Flite Bell 222
8. Represents Mercy Flite future Aerospatiale AS350 A-star

*Each closed pattern evolution counted as 2 operations

**Day** = 7:00 a.m. to 7:00 p.m.

**Evening** = 7:00 p.m. to 10:00 p.m.

**Night** = 10:00 p.m. to 7:00 a.m.

Source: Aviation Activity Forecast (URS, 2003); URS Analysis
<table>
<thead>
<tr>
<th>Aircraft Group</th>
<th>Representative INM Aircraft Type</th>
<th>Location</th>
<th>Heading (degrees, true North)</th>
<th>Power Setting (% RPM)</th>
<th>Duration (Seconds)</th>
<th>Annual Single-engine Run-up Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>day</td>
</tr>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 06 hold-short</td>
<td>60</td>
<td>100</td>
<td>15.0</td>
<td>99</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td></td>
<td>60</td>
<td>100</td>
<td>15.0</td>
<td>3,200</td>
</tr>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 24 hold-short</td>
<td>210</td>
<td>100</td>
<td>15.0</td>
<td>1,410</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td></td>
<td>240</td>
<td>100</td>
<td>15.0</td>
<td>45,593</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50,302</td>
</tr>
</tbody>
</table>

Table 6-5 
Run-Up Operations for 2009 NEM
6.5 AIRCRAFT NOISE CONTOURS

Figure 6-1 is the 2009 Future Condition NEM. It presents the CNEL contours superimposed over the land use base map. The CNEL contours are only slightly larger than the 2004 NEM representing a 16% overall forecasted increase in operations. The 60 CNEL (and 65 CNEL) contours of the 2009 NEM are wholly contained within the city of Carlsbad.

Similar to the 2004 NEM, the 2009 aircraft noise exposure east of CRQ would be primarily due to Runway 24 arrival/practice approach traffic. Conversely, the aircraft noise exposure west of CRQ would be primarily due to Runway 24 departure traffic. The effect of helicopter operations on the CNEL contours are evidenced by the south-pointing ripples in the contours located near the middle of the airfield.

6.6 LAND USE COMPATIBILITY

Land uses within the 2009 CNEL noise contours are listed in Tables 6-6 and 6-7. Table 6-6 indicates that no residential land uses occur within the 65 or greater CNEL contour. As indicated in Table 6-7, using 2010 population projections, there are no non-compatible land uses within the CY 2009 65 or greater CNEL contours.

Table 6-6
Land Use Acreages for 2009 NEM Noise Contours

<table>
<thead>
<tr>
<th>Land Use</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>Greater than or Equal to 75</th>
<th>Total Within 65 dBA CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>113.9</td>
<td>7.7</td>
<td>0.1</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Industrial</td>
<td>384.5</td>
<td>250.0</td>
<td>76.4</td>
<td>6.2</td>
<td>332.6</td>
</tr>
<tr>
<td>Open Space</td>
<td>233.2</td>
<td>13.0</td>
<td></td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td>Government Services</td>
<td>33.7</td>
<td>51.1</td>
<td>80.3</td>
<td>102.3</td>
<td>233.7</td>
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<tr>
<td>Residential</td>
<td>61.4</td>
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</tr>
<tr>
<td>Unplanned Area</td>
<td>11.5</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>838.2</td>
<td>321.8</td>
<td>156.8</td>
<td>108.5</td>
<td>587.1</td>
</tr>
</tbody>
</table>

Source: SANDAG and URS inventory and analysis, 2004
### Table 6-7
Projected Sensitive Receivers
Within Identified 2009 NEM Noise Contours*

<table>
<thead>
<tr>
<th>Receivers</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-64</td>
</tr>
<tr>
<td>Population*</td>
<td>413</td>
</tr>
<tr>
<td>Residences*</td>
<td>155</td>
</tr>
<tr>
<td>Churches</td>
<td>0</td>
</tr>
<tr>
<td>Schools and Daycare Facilities</td>
<td>0</td>
</tr>
<tr>
<td>Hospitals and other Healthcare Facilities</td>
<td>0</td>
</tr>
<tr>
<td>(including Nursing Homes)</td>
<td>0</td>
</tr>
<tr>
<td>Parks</td>
<td>0</td>
</tr>
</tbody>
</table>

*Using population year 2010 estimates.
Source: SANDAG and URS Inventory and analysis, 2004.
SECTION 7 NOISE EXPOSURE CONTOURS FOR YEAR 2014 (UNMITIGATED)

Sections 7.1 through 7.4 discuss the operational information used to generate the Year 2014 Future Condition NEM, presented in Section 7.5. Section 7.6 concludes the chapter with a quantification of non-compatible land use relative to the 2014 NEM.

7.1 FLIGHT OPERATIONS AND FLEET MIX

Table 7-1 presents a summary of the modeled flight operations, in terms of arrivals, departures and training operations. Table 1.7 of the Forecast contained in Appendix F predicts nearly 260,000 annual flight operations for CY 2013. Extrapolating from CY 2013, approximately 265,000 annual flight operations were modeled for this NEM and are shown in Table 7-1. Consistent with the forecast, Table 7-1 shows an increase in Air Taxi, GA Itinerant, GA Local flight operations by 43%, 27% and 34% relative to 2004, respectively. Relative to 2009, the increase in Air Taxi, GA Itinerant, and GA Local would be 16%, 10% and 13%, respectively. The forecast held Military flight operations at a constant tempo (1,964 flight operations annually). The temporal (day/evening/night) and operational distributions for all aircraft categories are identical to 2004. Therefore, 7% of the flight operations would occur during the evening (7:00 p.m. to 10:00 p.m.) period and 3% would occur during the nighttime (10:00 p.m. to 7:00 a.m.) period.

The fleet mix forecast for 2013, as documented in Table 1.9 of the Forecast of Appendix F, was assumed to apply to 2014. Tables 7-2 through 7-4 detail the 2014 flight operations. Relative to 2004, the fleet mix would be identical except for helicopters, which would have phased out the Bell 222 aircraft and substituted it with the MD 900 and introduced the AS 350. Relative to 2009, the fleet mix for 2014 would be identical.

7.2 RUNWAY AND HELIPAD UTILIZATION, FLIGHT TRACKS AND TRACK UTILIZATION

Relative to existing conditions, no changes are estimated for runway and helipad utilization, flight tracks, and track utilization described in Sections 5.2 and 5.3. The modeling parameters applied to existing helicopter operations would apply to the 2014 helicopter fleet mix.

7.3 RUN-UP OPERATIONS

Corresponding to an increase in flight operations, the run-up operations for 2014 would also increase relative to 2004 conditions. Table 7-5 lists the modeled pre-flight run-up operations that would be identical to 2004 conditions, except for a 29% increase in frequency. Relative to 2009, the increase in frequency would be 11%.

7.4 AIRCRAFT NOISE AND PERFORMANCE

It was conservatively assumed that aircraft noise and performance in 2014 would be identical to existing conditions, although some decrease in noise levels are anticipated by the replacement of aging aircraft with newer stage 3 compliant GA and commercial aircraft. See Sections 2, 5.5 and Appendix E for discussion of flight profiles relevant to this NEM.
## Table 7-1

Summary of Modeled Annual Flight Operations for 2014 NEM

<table>
<thead>
<tr>
<th>Category</th>
<th>IFR or VFR</th>
<th>Departure</th>
<th>Arrival</th>
<th>Touch and Go&lt;sup&gt;1&lt;/sup&gt;</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>Air Carrier</td>
<td>both</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Taxi</td>
<td>both</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GA Itinerant</td>
<td>IFR&lt;sup&gt;*&lt;/sup&gt;</td>
<td>17,874</td>
<td>768</td>
<td>578</td>
</tr>
<tr>
<td></td>
<td>GA Local</td>
<td>IFR&lt;sup&gt;*&lt;/sup&gt;</td>
<td>9,421</td>
<td>403</td>
<td>301</td>
</tr>
<tr>
<td></td>
<td>GA Itinerant</td>
<td>VFR</td>
<td>39,618</td>
<td>1,704</td>
<td>1,279</td>
</tr>
<tr>
<td></td>
<td>GA Local</td>
<td>VFR</td>
<td>11,934</td>
<td>513</td>
<td>385</td>
</tr>
<tr>
<td></td>
<td>Military</td>
<td>both</td>
<td>536</td>
<td>228</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>87,148</td>
<td>4,808</td>
<td>2,955</td>
</tr>
</tbody>
</table>

<sup>1</sup>Touch and Go counted as 2 operations each

Table may not match the detailed table due to rounding

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: Aviation Activity Forecast (URS, 2003); URS Analysis
## Table 7-2
### Annual Air Taxi Flight Operations for 2014 NEM

| Aircraft Category | Representative INM Category<sup>3</sup> | Arrival | | Departure (Stage Length 1 (0-500nm)) | | Grand Total |
|-------------------|----------------------------------------|---------|-----------|---------------------------------------|-----------|
|       |                                       | Day     | Evening   | Night | Total | Day | Evening | Night | Total | Day | Evening | Night | Total |
| Regional Jet | CL600 | 380 | 34 | 13 | 427 | 395 | 20 | 12 | 427 | 775 | 54 | 25 | 854 |
|       | CL601 | 48 | 4 | 2 | 54 | 49 | 3 | 2 | 54 | 97 | 7 | 4 | 108 |
|       | CIT3 | 190 | 17 | 7 | 214 | 197 | 10 | 6 | 213 | 387 | 27 | 13 | 427 |
|       | CNA500 | 190 | 17 | 7 | 214 | 197 | 10 | 6 | 213 | 387 | 27 | 13 | 427 |
|       | CNA750 | 523 | 46 | 18 | 587 | 543 | 28 | 17 | 588 | 1,066 | 74 | 35 | 1,175 |
|       | GIIB | 95 | 8 | 3 | 106 | 99 | 5 | 3 | 107 | 194 | 13 | 6 | 213 |
|       | GIV | 190 | 17 | 7 | 214 | 197 | 10 | 6 | 213 | 387 | 27 | 13 | 427 |
|       | LEAR35 | 1,665 | 147 | 57 | 1,899 | 1,727 | 88 | 54 | 1,869 | 3,392 | 235 | 111 | 3,738 |
|       | MU3001 | 999 | 88 | 34 | 1,121 | 1,036 | 53 | 32 | 1,121 | 2,035 | 141 | 66 | 2,242 |
| Business Jet | DHC6 | 48 | 4 | 2 | 54 | 49 | 3 | 2 | 54 | 97 | 7 | 4 | 108 |
|       | DHC8<sup>1</sup> | 680 | 444 | 1,124 | 606 | 518 | 1,124 | 1,287 | 961 | 2,248 |
|       | EMB120<sup>2</sup> | 2,200 | 221 | 483 | 2,904 | 2,225 | 421 | 258 | 2,904 | 4,425 | 642 | 741 | 5,808 |
| Twin Turboprop | BEC58P | 428 | 38 | 15 | 481 | 444 | 23 | 14 | 481 | 872 | 61 | 29 | 962 |
|       | TOTAL | 7,636 | 1,085 | 648 | 9,369 | 7,765 | 1,192 | 412 | 9,368 | 15,400 | 2,277 | 1,060 | 18,737 |

Notes:
1<sup>1</sup>America West only
2<sup>2</sup>United Express only
3<sup>3</sup>Types other than for America West and United Express only include: AmeriFlight (cargo), ExecJet (NetJets), Executive Jet Management, Global Airways, Bombardier Flexjet, Flight Options, Pacific Jet, Inc., Priester Aviation

Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.

Source: Aviation Activity Forecast (URS, 2003); URS Analysis
### Table 7-3

**Annual IFR (Local and Itinerant)**  
**General Aviation Flight Operations for 2014 NEM**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Departure (Stage Length 1 [0-500nm])</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
</tr>
<tr>
<td>Regional Jet</td>
<td>CL600</td>
<td>1,057</td>
<td>82</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>CNA500</td>
<td>1,849</td>
<td>144</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>528</td>
<td>41</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>FAL20</td>
<td>264</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>G11B</td>
<td>264</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>GIV</td>
<td>793</td>
<td>61</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>GV</td>
<td>264</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>IA1125</td>
<td>264</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>LEAR25</td>
<td>264</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>LEAR35</td>
<td>2,378</td>
<td>185</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>1,585</td>
<td>124</td>
<td>53</td>
</tr>
<tr>
<td>Business Jet</td>
<td>MU3001</td>
<td>1,585</td>
<td>124</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>CNA441</td>
<td>793</td>
<td>61</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>DHC6</td>
<td>1,321</td>
<td>102</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>BEC58P</td>
<td>2,642</td>
<td>206</td>
<td>88</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td>CNA172</td>
<td>4,226</td>
<td>328</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>CNA206</td>
<td>2,113</td>
<td>165</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>GASEPF</td>
<td>3,170</td>
<td>246</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>GASEPV</td>
<td>2,113</td>
<td>165</td>
<td>70</td>
</tr>
</tbody>
</table>
### Table 7-3 (continued)
#### Annual IFR (Local and Itinerant)
General Aviation Flight Operations for 2014 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Departure (Stage Length 1 [0-500nm])</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
</tr>
<tr>
<td>Helicopter</td>
<td>H500D¹</td>
<td>185</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>H500D²</td>
<td>307</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>H500D³</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>B206L⁴</td>
<td>11</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SA365N⁵</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>H500D⁶</td>
<td>11</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>B222⁷</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA350D⁸</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>26,417</td>
<td>2,051</td>
<td>879</td>
</tr>
</tbody>
</table>

**Notes:**
- ¹Represents Civic Helicopters' Robinson R22BII
- ²Represents Civic Helicopters' Schweitzer S300C
- ³Represents Civic Helicopters' MD500D
- ⁴Represents Civic Helicopters' Bell 206BIII
- ⁵Represents Civic Helicopters' Eurocopter EC120
- ⁶Represents Civic Helicopters' future MD900
- ⁷Represents Mercy Flite Bell 222
- ⁸Represents Mercy Flite future Aerospatiale AS350 A-star

*Each closed pattern evolution counted as 2 operations

- Day = 7:00 a.m. to 7:00 p.m.
- Evening = 7:00 p.m. to 10:00 p.m.
- Night = 10:00 p.m. to 7:00 a.m.

Sources: Aviation Activity Forecast (URS, 2003); URS Analysis
### Table 7-4
Annual VFR (Local and Itinerant)
General Aviation Flight Operations for 2014 NEM

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Touch and Go (closed patterns*)</th>
<th>Departure (Stage Length 1 [0-500nm])</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>Regional Jet</td>
<td>CL600</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>CNA500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>CNA750</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>FAL20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GIIB</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GIV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>IA1125</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LEAR25</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td></td>
<td>LEAR35</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>MU3001</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Business Jet</td>
<td>CNA441</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DHC6</td>
<td>498</td>
<td>39</td>
<td>17</td>
<td>554</td>
</tr>
<tr>
<td>Twin Turboprop</td>
<td>CNA172</td>
<td>25,293</td>
<td>1,967</td>
<td>843</td>
<td>28,103</td>
</tr>
<tr>
<td></td>
<td>CNA206</td>
<td>13,620</td>
<td>1,059</td>
<td>454</td>
<td>15,133</td>
</tr>
<tr>
<td>Single Prop</td>
<td>MU3001</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GASEPF</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GASEPV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
## Table 7-4 (continued)
### Annual VFR (Local and Itinerant)

**General Aviation Flight Operations for 2014 NEM**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Representative INM Aircraft Type</th>
<th>Arrival</th>
<th>Touch and Go (closed patterns*)</th>
<th>Departure (Stage Length 1 [0-500nm])</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
<td>Evening</td>
<td>Night</td>
<td>Total</td>
</tr>
<tr>
<td>Helicopter</td>
<td>H500D¹</td>
<td>3,492</td>
<td>272</td>
<td>117</td>
<td>3,880</td>
</tr>
<tr>
<td></td>
<td>H500D²</td>
<td>5,787</td>
<td>450</td>
<td>193</td>
<td>6,430</td>
</tr>
<tr>
<td></td>
<td>H500D³</td>
<td>100</td>
<td>8</td>
<td>3</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>B206L⁴</td>
<td>200</td>
<td>16</td>
<td>7</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>SA365N⁶</td>
<td>100</td>
<td>8</td>
<td>3</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>H500D⁶</td>
<td>200</td>
<td>16</td>
<td>7</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>B222⁷</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA350D⁸</td>
<td>100</td>
<td>8</td>
<td>3</td>
<td>111</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>49,887</td>
<td>3,880</td>
<td>1,664</td>
<td>55,430</td>
</tr>
</tbody>
</table>

Notes:
1Represents Civic Helicopters' Robinson R22BII
2Represents Civic Helicopters' Schweitzer S300C
3Represents Civic Helicopters' MD600D
4Represents Civic Helicopters' Bell 206BIII
5Represents Civic Helicopters' Eurocopter EC120
6Represents Civic Helicopters' future MD900
7Represents Mercy Flite Bell 222
8Represents Mercy Flite future Aerospatiale AS350 A-star
*Each closed pattern evolution counted as 2 operations
Day = 7:00 a.m. to 7:00 p.m.
Evening = 7:00 p.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
Sources: Aviation Activity Forecast (URS, 2003); URS Analysis
## Table 7-5
### Run-Up Operations for 2014 NEM

<table>
<thead>
<tr>
<th>Aircraft Group</th>
<th>Representative INM Aircraft Type</th>
<th>Location</th>
<th>Heading (degrees, re true North)</th>
<th>Power Setting (% RPM)</th>
<th>Duration (Seconds)</th>
<th>Annual Single-engine Run-up Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 06 hold-short</td>
<td>60</td>
<td>100</td>
<td>15.0</td>
<td>Day: 111, Evening: 5, Night: 14, Total: 130</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td>Runway 06 hold-short</td>
<td>60</td>
<td>100</td>
<td>15.0</td>
<td>Day: 3,578, Evening: 158, Night: 105, Total: 3,841</td>
</tr>
<tr>
<td>Multi-Engine Prop</td>
<td>BEC58P</td>
<td>Runway 24 hold-short</td>
<td>210</td>
<td>100</td>
<td>15.0</td>
<td>Day: 1,567, Evening: 67, Night: 202, Total: 1,836</td>
</tr>
<tr>
<td>Single Engine Prop</td>
<td>CNA172</td>
<td>Runway 24 hold-short</td>
<td>240</td>
<td>100</td>
<td>15.0</td>
<td>Day: 50,656, Evening: 2,177, Night: 1,481, Total: 54,314</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Day: 55,912, Evening: 2,407, Night: 1,802, Total: 60,121</td>
</tr>
</tbody>
</table>

Source: URS Analysis
SECTION SEVEN  

Noise Exposure Contours for Year 2014 (Unmitigated)

7.5 AIRCRAFT NOISE CONTOURS

Figure 7-1 is the 2014 NEM. It presents the CNEL contours superimposed over the land use base map. The CNEL contours are only slightly larger than the 2004 NEM representing a 30% overall forecasted increase in operations. All other modeling parameters being equal, a 30% increase in operations would correspond to an increase in noise exposure of 1.1 dBA. The 60 CNEL (and 65 CNEL) contours of the 2014 NEM are wholly contained within the city of Carlsbad.

Similar to the 2004 NEM, the aircraft noise exposure east of CRQ would be primarily due to Runway 24 arrival/practice approach traffic. Conversely, the aircraft noise exposure west of CRQ would be primarily due to Runway 24 departure traffic. The effect of helicopter operations on the CNEL contours are evidenced by the south-pointing ripples in the contours located near the middle of the airfield.

7.6 LAND USE COMPATIBILITY

Land uses within the 2014 CNEL noise contours are listed in Tables 7-6 and 7-7. Table 7-6 indicates that no residential land uses occur within the 65 or greater CNEL contour. As indicated in Table 7-7, using 2020 population projections, there are no non-compatible residential land uses within the year 2014 65 or greater CNEL contours.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>Greater than or Equal to 75</th>
<th>Total Within 65 dBA CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>130.4</td>
<td>8.4</td>
<td>0.2</td>
<td></td>
<td>8.6</td>
</tr>
<tr>
<td>Industrial</td>
<td>394.9</td>
<td>264.0</td>
<td>89.0</td>
<td>8.7</td>
<td>361.7</td>
</tr>
<tr>
<td>Open Space</td>
<td>266.4</td>
<td>22.2</td>
<td></td>
<td></td>
<td>22.2</td>
</tr>
<tr>
<td>Government Services</td>
<td>33.7</td>
<td>50.8</td>
<td>78.4</td>
<td>108.0</td>
<td>237.2</td>
</tr>
<tr>
<td>Residential</td>
<td>85.5</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Unplanned Area</td>
<td>11.5</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>922.4</td>
<td>345.4</td>
<td>167.6</td>
<td>116.7</td>
<td>629.7</td>
</tr>
</tbody>
</table>

Source: SANDAG and URS inventory and analysis, 2004
### Table 7-7
Projected Sensitive Receivers
Within Identified 2014 NEM Noise Contours*

<table>
<thead>
<tr>
<th>Receivers</th>
<th>CNEL (dBA)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-64</td>
<td>65-69</td>
<td>70-74</td>
<td>75 or greater</td>
</tr>
<tr>
<td>Population*</td>
<td>809</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Residences*</td>
<td>295</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Churches</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Schools and Daycare Facilities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hospitals and other Healthcare Facilities (including Nursing Homes)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Parks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Using 2020 population estimates  
Source: SANDAG and URS Inventory and analysis, 2004.
SECTION 8 CONSULTATION WITH PUBLIC, USERS AND OUTSIDE AGENCIES

FAR Part 150, Airport Noise Compatibility Planning, requires that each NEM and NCP must be developed and prepared in consultation with FAA regional officials, the officials of the state, and of any public agencies and planning agencies whose area, or any portion of whose area, of jurisdiction is within the 65 DNL (or CNEL) contour depicted on the NEM, and other Federal officials having local responsibility for land uses depicted on the map. This consultation must include regular aeronautical users of the airport, including air carriers and other aircraft operators.

Prior to and during the development of a program, and prior to submission of the resulting draft program to the FAA, the airport operator shall afford adequate opportunity for the active and direct participation of the states, public agencies and planning agencies in the areas surrounding the airport, aeronautical users of the airport, and the general public to submit their views, data, and comments on the formulation and adequacy of that program.

The County, as owner and operator of CRQ, certifies in the Sponsor’s Certification that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the draft NEMs and descriptions of forecast aircraft operations. Documentation describing the consultation accomplished during the development of the NEMs and the opportunities afforded the public to review and comment are included in this section and associated appendices.

As specified in FAR Part 150, the preparation of a Part 150 Study requires that certain parties must be identified and consulted during development of the associated NEMs and the overall NCP. Based on this requirement, written and verbal correspondence was initiated and continued throughout the study with the following parties to provide input and assistance:

At the start of the Part 150 Study a letter was sent to parties identified below to notify them of the Part 150 Study Update, and to request their participation / input. A copy of the letter is provided in Appendix H.

- Airlines serving CRQ
- Airline Pilots Association (ALPA)
- Aircraft Owners and Pilots Association (AOPA)
- FAA ATC
- FAA ATCT
- Local General Aviation / Private Pilots
- Cities of Carlsbad, Oceanside, San Marcos, Encinitas and Vista
- San Diego County Property Appraiser
- PAAC
- National Business Aircraft Association (NBAA)
- Air Transport Association (ATA)
- California Department of Aeronautics
- All individuals that participated in the Palomar Airport Round Table 2000
8.1 PALOMAR AIRPORT ADVISORY COMMITTEE (PAAC)

The County designated PAAC as the citizens review committee for this study. Committee members are nominated by the Supervisor from the Fifth Supervisory District and appointed by the County Board of Supervisors. Committee members serve a term, which run concurrently with the term of the Supervisor who nominated them to the Committee. A list of the Airport Advisory Committee Members is presented in Appendix G.

The PAAC provided input to the study process and served as a conduit for input from community residents, FBOs, and other interested parties. The PAAC meets the third Thursday of every month at the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California to discuss issues related to CRQ. The meetings are noticed on the Airport website and the Carlsbad information television channel. The public is encouraged to attend and ask questions and comment on the proceedings. The URS Project Manager provided written and oral reports describing the progress of the Part 150 Study and answered questions from Committee members and the public at each PAAC meeting since December 19, 2002. Many topics were discussed including the Part 150 process, existing and future aircraft operations, flight tracks for fixed wing and helicopter aircraft, and NEMs. A Part 150 fact sheet was provided to all interested attendees. Specific PowerPoint presentations were made to the PAAC on December 19, 2002, September 18, 2003, January 15, 2004, and March 18, 2004 as described in Table 8.1. Appendix G contains copies of the agenda for the meeting, as well as a copy of the presentation materials.

8.2 PUBLIC MEETINGS

Two public meetings were conducted during the course of preparing the NEM document that focused on the development and refinement of the NEMs.

The first meeting was to acquaint the public with the Part 150 Study process, present terms and methodologies, and solicit questions and comments on the process. The meeting was held on March 27, 2003, from 7:00 p.m. to 9:00 p.m. at the city of Carlsbad’s Faraday Center. The meeting consisted of an oral/visual presentation followed by a question, comment and answer period. A fact sheet was prepared and made available for meeting attendees. Attendance records indicate that 38 members of the public, airport users, and media reporters attended. Forty-nine written comment letters were submitted, which resulted in 86 individual comments. One hundred individual verbal question/comments were received. The comments are summarized in Appendix H. Copies of the meeting’s presentation, meeting invitation, news release, sign-in sheets, verbal questions and comments, written comments received, and newspaper articles published following the workshop are included in Appendix H.
**SECTION EIGHT**

Consultation with Public, Users, and Outside Agencies

Table 8.1

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Issues Discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 19, 2002</td>
<td>Part 150 Study Kickoff</td>
<td>• Part 150 Study Team&lt;br&gt;• Part 150 Study Process&lt;br&gt;• Schedule&lt;br&gt;• Questions And Answers</td>
</tr>
<tr>
<td>September 18, 2003</td>
<td>Part 150 Study Progress</td>
<td>• Data Collection And Analysis Progress&lt;br&gt;• Next Steps&lt;br&gt;• Questions And Answers</td>
</tr>
<tr>
<td>January 15, 2004</td>
<td>New PAAC Member Part 150 Process</td>
<td>• Part 150 Study Background&lt;br&gt;• Part 150 Study Approach&lt;br&gt;• NEM Development Process&lt;br&gt;• NCP Development Process&lt;br&gt;• Public Participation Process</td>
</tr>
<tr>
<td>March 18, 2004</td>
<td>NEM Presentation NEM Public Meeting Plan</td>
<td>• Study Definition, Goals, Impetus And Requirements&lt;br&gt;• Process And Progress&lt;br&gt;• Representative Flight Operations&lt;br&gt;• Analyzed Tower Counts &amp; GEMS Data&lt;br&gt;• Modeled Average Daily Flight Operations For CY2004&lt;br&gt;• Fleet Mix For CY2004&lt;br&gt;• Flight Track Development &amp; Utilization&lt;br&gt;• Nominal Departure Flight Tracks&lt;br&gt;• Nominal Arrival &amp; Missed Approach Flight Tracks&lt;br&gt;• Nominal Training Flight Tracks&lt;br&gt;• Community Noise Equivalent Level&lt;br&gt;• Draft CNEL Contours For 2004&lt;br&gt;• Forecasting Flight Operations&lt;br&gt;• Draft CNEL Contours For 2009&lt;br&gt;• Draft CNEL Contours For 2014&lt;br&gt;• Schedule For Remainder Of Study Update</td>
</tr>
</tbody>
</table>

The second public meeting was held to present the NEMs on March 29, 2004, from 6:00 p.m. to 9:00 p.m. at the Carlsbad’s Faraday Center. The meeting was structured as an open house with display boards and information posted throughout the room, followed by an oral/visual presentation, and questions and comments period. This format was used to encourage discussions between the study team and members of the general public. In addition to presenting the existing and five-year noise contours, topics addressed at the individual work stations included land use verification, assistance to the public in locating individual homes and/or neighborhoods in relationship to the noise contours, and historical noise and land use compatibility information. Meeting attendees were also encouraged to provide comments on development of the NCP.

Presentation boards on display included the following:

- Part 150 Study Requirements
SECTION EIGHT  Consultation with Public, Users, and Outside Agencies

- Draft Modeled Departure Flight Tracks
- Draft Modeled Arrival and Missed Approach Flight Tracks
- Draft Modeled Training Flight Tracks
- Existing and Forecast Aircraft Operations
- Flight Operation Density Maps
- Draft 2004 NEM vs. 1989 NEM on Land Use and Aerial Map
- Draft 2004 NEM on Land Use and Aerial Map
- Draft 2009 NEM on Land Use and Aerial Map
- Draft 2014 NEM on Land Use and Aerial Map

Verbal comments, comment sheets collected at the workshop and comments submitted via e-mail, regular mail, and fax until April 14, 2004, were used to compile a summary of the public’s comments, which is presented in Appendix H. Attendance records indicate that 32 members of the public, airport users, and media reporters attended. Twenty-four written comment letters were submitted. Approximately 140 individual written and verbal comments/questions were received. Written and verbal comments are summarized in Appendix H. Copies of the presentation, news release, and sign-in sheets, written and verbal comments received, newspaper articles published following the workshop, and workshop photographs are included in Appendix H.

8.3 AIRPORT WORLD WIDE WEB SITE

Relevant information pertaining to the Part 150 Study was posted on a County Website at www.sdcounty.ca.gov/dpw/airports/mcpal.html. Information posted on the Website included the PAAC meeting agenda, the PAAC meeting minutes, the Preliminary Forecast of Aviation Activity, and the presentations from PAAC meetings and the first and second public meetings.

8.4 FAA REVIEW AND ACCEPTANCE

On April 26, 2005, the FAA announced their determination that the Noise Exposure Maps submitted by the County of San Diego for McClellan-Palomar Airport under the provisions of 49 U.S.C. 47501 et. seq. (Aviation Safety and Noise Abatement Act) and 14 CFR Part 150 were in compliance with applicable requirements. The transmittal letter to the FAA and the acceptance letter from the FAA are included in Appendix I. In addition, the FAA published the Noise Exposure Map Notice, McClellan-Palomar Airport in the Federal Register, Vol. 70, No. 89, on May 10, 2005. The Federal Register Notice is also included in Appendix I.

As described in Section 47506(b)(1) of the Aviation Safety and Noise Abatement Act of 1979, a legal notice was advertised in several local newspapers. Following is the list of local newspapers and advertisement dates:
SECTION EIGHT Consultation with Public, Users, and Outside Agencies

- The San Diego Union-Tribune – 3/23/07, 3/26/07, and 4/4/07; and
- North County Times – 3/12/07, 3/21/07, and 3/30/07.

Copies of each advertisement are included in Appendix I.

The legal notice reads as follows:

LEGAL NOTICE

Pursuant to Section 107(a) & (b) [Title 49, United States Code, Section 47506] of the Airport Safety and Noise Abatement Act of 1979, as amended, notice is hereby given that on April 26, 2005, the Federal Aviation Administration completed its evaluation of, and formally accepted the Noise Exposure Maps (NEM) for McClellan-Palomar Airport, located in Carlsbad, California. The NEM were prepared pursuant to Title 14, Code of Federal Regulations, Part 150 (14 CFR Part 150). The completed noise exposure maps and supporting documentation are available to the general public in the reference section of the Carlsbad City Library, 1775 Dove Lane, Carlsbad, California.
SECTION NINE

SECTION 9 REFERENCES


## FAR PART 150
**NOISE EXPOSURE MAP CHECKLIST**

**AIRPORT NAME:** McClellan-Palomar Airport  
**REVIEWER:** __________

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes/No/NA</th>
<th>Page No./Other Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Identification and Submission of Map Document:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Is this submittal appropriately identified as one of the following, submitted under F.A.R. Part 150:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. An NEM only?</td>
<td>Yes</td>
<td>Cover Page and Page 1-2</td>
</tr>
<tr>
<td>2. An NEM and NCP?</td>
<td>No</td>
<td>NCP will be submitted separately</td>
</tr>
<tr>
<td>a. A revision to NEMs that have previously been determined by FAA to be in compliance with Part 150?</td>
<td>Yes</td>
<td>Page 1-3</td>
</tr>
<tr>
<td>B. Is the airport name and the qualified airport operator identified?</td>
<td>Yes</td>
<td>Cover Page and Page 1-2</td>
</tr>
<tr>
<td>C. Is there a dated cover letter from the airport operator that indicates the documents are submitted under Part 150 for appropriate FAA determinations?</td>
<td>Yes</td>
<td>Appendix I</td>
</tr>
<tr>
<td><strong>II. Consultation: (150.21[b], A150.105[a]):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Is there a narrative description of the consultation accomplished, including opportunities for public review and comment during map development?</td>
<td>Yes</td>
<td>Sections 8.1 and 8.2</td>
</tr>
<tr>
<td>B. Identification:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Are the consulted parties identified?</td>
<td>Yes</td>
<td>Section 8</td>
</tr>
<tr>
<td>2. Do they include all those required by 150.21[b] and A150.105[a]?</td>
<td>Yes</td>
<td>Section 8</td>
</tr>
<tr>
<td>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]?</td>
<td>Yes</td>
<td>Sections 8.1, 8.2, and 8.3</td>
</tr>
<tr>
<td>D. Does the document indicate whether written comments were received during consultation and, if there were comments that they are on file with the FAA region?</td>
<td>Yes</td>
<td>Sections 8.1 and 8.2, Appendix H</td>
</tr>
<tr>
<td><strong>III. General Requirements: (150.21)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Are there two maps, each clearly labeled on the face with year (existing condition year and 5-year)?</td>
<td>Yes</td>
<td>Figures 5.4, 6.1 and 7.1</td>
</tr>
<tr>
<td>B. Map currency:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Far Part 150 Noise Exposure Map Checklist

**Airport Name:** McClellan-Palomar Airport  
**Reviewer:** ____________

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes/No/NA</th>
<th>Page No./Other Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the existing condition map year match the year on the</td>
<td>Yes</td>
<td>Existing condition</td>
</tr>
<tr>
<td>airport operator's submittal letter?</td>
<td></td>
<td>map year is 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and year on</td>
</tr>
<tr>
<td></td>
<td></td>
<td>submittal letter is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2004.</td>
</tr>
<tr>
<td>2. Is the 5-year map based on reasonable forecasts and other</td>
<td>Yes</td>
<td>5-year map is for</td>
</tr>
<tr>
<td>planning assumptions and is it for the fifth calendar year after</td>
<td></td>
<td>2009, and is based</td>
</tr>
<tr>
<td>the year of submission?</td>
<td></td>
<td>on FAA-approved forecast.</td>
</tr>
<tr>
<td>3. If the answer to 1 and 2 above is no, has the airport operator</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>verified in writing that data in the documentation are</td>
<td></td>
<td></td>
</tr>
<tr>
<td>representative of existing condition and 5-year forecast conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>as of the date of submission?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. If the NEM and NCP are submitted together:</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>1. Has the airport operator indicated whether the 5-year map is</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>based on 5-year contours without the program vs. contours if the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>program is implemented?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. If the 5-year map is based on program implementation:</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>a. Are the specific program measures reflected on the map</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>identified?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Does the documentation specifically describe how these measures</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>affect land use compatibilities depicted on the map?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. If the 5-year NEM does not incorporate program</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>implementation, has the airport operator included an</td>
<td></td>
<td></td>
</tr>
<tr>
<td>additional NEM for FAA determination after the program is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>approved that shows program implementation conditions and that is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intended to replace the 5-year NEM as the new official 5-year map?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IV. Map Scale Graphics, and Data Requirements: (A150.101, A150.103, A150.105, 150.21[a])

| A. Are the maps of sufficient scale to be clear and readable (they   | Yes       | All maps are 1” to         |
| must not be less than 1” to 8,000’), and is the scale indicated on  |           | 8,000’ or greater         |
| the maps?                                                          |           |                          |
| B. Is the quality of the graphics such that required information is | Yes       |                          |
| clear and readable?                                                |           |                          |
| C. Depiction of the airport and its environs:                      | Yes       |                          |
| 1. Is the following graphically depicted to scale on both the existing | | |
# FAA Part 150 Noise Exposure Map Checklist

## FAR PART 150

### NOISE EXPOSURE MAP CHECKLIST

**AIRPORT NAME:** McClellan-Palomar Airport  
**REVIEWER:** _____________

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes/No/NA</th>
<th>Page No./Other Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>conditions and 5-year maps:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Airport boundaries?</td>
<td>Yes</td>
<td>Figures 2.1, 2.2, 4.1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.2, 4.3, 5.1, 5.2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.3, 5.4, 6.1, and 7.1</td>
</tr>
<tr>
<td>b. Runway configurations with runway end numbers?</td>
<td>Yes</td>
<td>Figures 2.1, 2.2, 4.1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.2, 4.3, 5.1, 5.2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.3, 5.4, 6.1, and 7.1</td>
</tr>
</tbody>
</table>

2. Does the depiction of the off-airport data include:

| a. A land use base map depicting streets and other identifiable    | Yes       | Figure 4.1               |
| geographic features?                                              |           |                          |
| b. The area within the 65 Ldn (or beyond, at local discretion)?   | Yes       | Figures 5.4, 6.1, and    |
|                                                                     |           | 7.1                      |
| c. Clear delineation of geographic boundaries and the names        | Yes       | Figure 4.3               |
| of all jurisdictions with planning and land use control authority  |           |                          |
| within the 65 Ldn (or beyond, at local discretion)?               |           |                          |

### D. Noise Contours

1. Continuous contours for at least the 65, 70, 75 Ldn?               | Yes       | Figures 5.4, 6.1, and    |
|                                                                     |           | 7.1                      |

2. Based on current airport and operational data for the existing    | Yes       | Sections 5.1, 5.2, and   |
| condition year NEM, and forecast data for the 5-year NEM?          |           | 5.3                      |

### E. Flight tracks for the existing condition and 5-year forecast   | Yes       | Figures 5.1, 5.2, and    |
| timeframes (these may be on supplemental graphics which must use the |           | 5.3                      |
| same land use base map as the existing condition and 5-year NEM), |           |                          |
| which are numbered to correspond to accompanying narrative?        |           |                          |

### F. Locations of any noise monitoring sites (these may be on      | NA        | Noise monitoring         |
| supplemental graphics that must use the same land use base map as  |           | was not used.             |
| the official NEMs.                                                 |           |                          |

### G. Noncompatible land use identification:

1. Are noncompatible land uses within at least the 65 Ldn depicted  | Yes       | Figures 5.4, 6.1, and    |
| on the maps?                                                      |           | 7.1                      |

2. Are noise sensitive public buildings identified?                 | Yes       | Figure 2.1               |
# FAA Part 150 Noise Exposure Map Checklist

## FAR PART 150
### NOISE EXPOSURE MAP CHECKLIST

**AIRPORT NAME:** McClellan-Palomar Airport  
**REVIEWER:** ___________

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes/No/NA</th>
<th>Page No./Other Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Are the noncompatible uses and noise sensitive public buildings readily identifiable and explained on the map legend?</td>
<td>No</td>
<td>There are no non-compatible land use and noise sensitive public buildings within 65 Ldn.</td>
</tr>
<tr>
<td>4. Are compatible land uses, which would normally be considered noncompatible, explained in the accompanying narrative?</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

**V. Narrative Support of Map Data:** (150.21[a], A150.1, A150.101, A150.103)

### A. Are the technical data, including data sources, on which the NEMs are based adequately described in the narrative?
- Yes  
  * Sections 5, 6, AND 7 Appendices D, E, and F

### B. Calculation of noise contours:

#### 1. Is the methodology indicated?
- Yes  
  * Section 3

- **a.** Is it FAA approved?
  - Yes  
    * Section 3

- **b.** Was the same model used for both maps?
  - Yes  
    * INM V6.1

- **c.** Has AEE approval been obtained for use of a model other than those that have previous blanket FAA approval?
  - NA  
    * FAA-approved model, INM, was used.

#### 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?
  - Yes  
    * Sections 5.1, 6.1, and 7.1, and Appendix D

- **b.** If so, does this have written approval from AEE?
  - Yes  
    * Appendix D

#### 3. If noise monitoring was used, does the narrative indicate that Part 150 guidelines were followed?
- NA  
  * Noise monitoring was not used.

#### 4. For noise contours below 65 Ldn, does the supporting documentation include explanation of local reasons? (Narrative explanation is highly desirable but not required by the Rule.)
- Yes  
  * Sections 5.7, 6.6, and 7.6

### C. Noncompatible Land Use Information:
# FAR PART 150
## NOISE EXPOSURE MAP CHECKLIST

**AIRPORT NAME:** McClellan-Palomar Airport  
**REVIEWER:** ___________

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes/No/NA</th>
<th>Page No./Other Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>Yes</td>
<td>Tables 5.12, 6.7, and 7.7</td>
</tr>
<tr>
<td>2. Does the documentation indicate whether Table 1 of Part 150 was used by the airport operator?</td>
<td>Yes</td>
<td>Section 4.3 Table 4.1</td>
</tr>
<tr>
<td>a. If a local variation to Table 1 was used:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Does the narrative clearly indicate which adjustments were made and the local reasons for doing so?</td>
<td>NA</td>
<td>Table 1 Of Part 150 Was Used.</td>
</tr>
<tr>
<td>(2) Does the narrative include the airport operators complete substitution for Table 1?</td>
<td>NA</td>
<td>Table 1 of Part 150 was used.</td>
</tr>
<tr>
<td>3. Does the narrative include information on self-generated or ambient noise where compatible/noncompatible land use identification considers non-airport/aircraft sources?</td>
<td>NA</td>
<td>Non-airport/aircraft sources were not considered.</td>
</tr>
<tr>
<td>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?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>5. Does the narrative describe how forecasts will affect land use compatibility?</td>
<td>Yes</td>
<td>Sections 6.6 and 7.6</td>
</tr>
</tbody>
</table>

### VI. Map Certification: (150.21[b], 150.21[e])

A. Has the operator certified in writing the interested persons have been afforded adequate opportunity to submit views, data, and comments concerning the correctness and adequacy of the draft maps and forecasts? | Yes       | Sections 8.1 and 8.2 Appendix H |

B. Has the operator certified in writing that each map and description of consultation and opportunity for public comment are true and complete? | Yes       |                          |
### COMMONLY USED ACOUSTICAL AND AIR TRAFFIC CONTROL TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Carrier</td>
<td>A commercial airline with published schedules operating at least five round trips per week.</td>
</tr>
<tr>
<td>Air Route Traffic Control Center (ARTCC)</td>
<td>A facility providing air traffic control to aircraft on an IFR flight plan within controlled airspace and principally during the enroute phase of flight.</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>Plane that either (1) fly at least five round trips per week between two or more points according to flight schedules that specify the times, days of the week, and places between which such flights are performed, or (2) transport mail pursuant to a current contract with the U.S. Postal Service.</td>
</tr>
<tr>
<td>Air Traffic Control Tower (ATCT)</td>
<td>A central operations tower in the terminal air traffic control system with an associated IFR room (if radar equipped) using air/ground communications and/or radar, visual signaling and other devices to provide safe and expeditious movement of air traffic.</td>
</tr>
<tr>
<td>Airport Influence Area (AIA)</td>
<td>A planning area designated by the ALUC around each airport which is, or reasonably may become, affected by airport related noise, fumes, or other influence, or which is, or may reasonably become, a site for a hazard to aerial navigation.</td>
</tr>
<tr>
<td>Airport Land Use Commission (ALUC)</td>
<td>The Airport Land Use Commission (ALUC) is an agency that is required by state law to exist in counties in which there is a commercial and/or a general aviation airport. The purpose of the ALUC is to protect public health, safety and welfare by ensuring the orderly development of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around public airports, to the extent that these areas are not already devoted to incompatible uses.</td>
</tr>
<tr>
<td>Airport Layout Plan (ALP)</td>
<td>The official FAA approved map of an airports’ facilities.</td>
</tr>
<tr>
<td>Airport Noise And Capacity Act Of 1990</td>
<td>The federal law that mandated the U.S. air fleet convert to Stage 3 aircraft by January 1, 2000 and requires federal approval of an airport’s proposed noise and access restrictions on aircraft.</td>
</tr>
<tr>
<td>Airport Noise Compatibility Program</td>
<td>The program developed and documented in accordance with Appendix B of 14 CFR 150, including the measures proposed or taken by the airport operator to reduce existing non-compatible land uses and to prevent the introduction of additional non-compatible land uses within the area.</td>
</tr>
<tr>
<td>Altitude MSL</td>
<td>The altitude of an aircraft measured in feet above Mean Sea Level.</td>
</tr>
<tr>
<td>Approach Lighting Systems (ALS)</td>
<td>Radiating light beams guiding pilots to the extended centerline of the runway on final approach and landing.</td>
</tr>
<tr>
<td><strong>Arrival Procedure</strong></td>
<td>A series of directions from air traffic control, using fixes and procedures, to guide an aircraft enroute to an airport for landing.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Avionics</strong></td>
<td>Airborne navigation, communications and data display equipment required for operation under specific air traffic control procedures</td>
</tr>
<tr>
<td><strong>California Airport Noise Standards</strong></td>
<td>The rules and regulations codified in Subchapter 6 of Title 21 of the California Code of Regulations, adopted in accordance with the California Public Utilities Code by the California Department of Transportation governing noise problem airports operating under a valid permit to operate.</td>
</tr>
<tr>
<td><strong>CNEL Contour</strong></td>
<td>A line of equal CNEL. A contour is computed with an FAA computer program called the Integrated Noise Model (INM), which calculates noise exposure on a plot grid of points on the ground.</td>
</tr>
<tr>
<td><strong>Community Noise Equivalent Level (CNEL)</strong></td>
<td>Same as DNL, except that it includes a 5 decibel penalty during the hours of 7:00 p.m. to 10:00 p.m. in addition to the 10 decibel nighttime penalty. CNEL using annual average daily operation is required by the State of California and the FAA to describe the noise impacts of airports.</td>
</tr>
<tr>
<td><strong>Compatible Land Use</strong></td>
<td>Land use identified under 14 CFR Part 150 as normally compatible with the outdoor noise at that location (or an adequately attenuated noise level for any indoor activities involved). Areas with noise exposure less than 65 dB DNL are considered &quot;compatible&quot; with residential use; areas at or above 65 dB DNL are designated &quot;incompatible&quot; with residential use.</td>
</tr>
<tr>
<td><strong>Day-Night Average Sound Level (DNL)</strong></td>
<td>A level of noise expressed (in decibels) as a 24-hour decibel average. Nighttime noise, between the hours of 10:00 p.m. and 7:00 a.m. is weighted; that is, given an additional 10 decibels to compensate for sleep interference and other disruptions caused by nighttime noise. DNL using annual average daily operations is required by the FAA to describe airport noise exposure.</td>
</tr>
<tr>
<td><strong>dBA</strong></td>
<td>The A-weighting characteristic modifies the frequency response of a sound measuring instrument to account approximately for the frequency characteristics of the human ear. The A-weighted decibel is a measure of sound pressure level modified by attenuating the low and very high frequencies.</td>
</tr>
<tr>
<td><strong>Decision Height</strong></td>
<td>During a landing, the height at which a decision must be made during an instrument approach either to continue the approach or to execute a missed approach.</td>
</tr>
<tr>
<td><strong>Decibel (dB)</strong></td>
<td>A logarithmic ratio of a measured sound pressure and a reference level, which is normally 0.0002 dynes per square centimeter (about the threshold of hearing). A sound doubles in loudness for every increase of 10 decibels.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Departure Procedure</td>
<td>A published IFR departure procedure describing specific criteria for climb, routing, and communications for a specific runway at an airport.</td>
</tr>
<tr>
<td>Equivalent Noise Level ((L_{eq}))</td>
<td>The average (on an energy basis) noise level (usually A-weighted sound level) integrated over some period of time.</td>
</tr>
<tr>
<td>FAR Part 150</td>
<td>A regulation governing noise and land use compatibility studies and programs for airports.</td>
</tr>
<tr>
<td>FAR Part 161</td>
<td>A regulation governing an airport’s imposition of noise and access restrictions on aircraft that requires FAA approval of any such restrictions.</td>
</tr>
<tr>
<td>FAR Part 36</td>
<td>A regulation defining maximum noise emissions for aircraft.</td>
</tr>
<tr>
<td>FAR Part 91</td>
<td>A regulation governing the phasing out of (noise) Stage 1 and 2 aircraft as defined under FAR Part 36.</td>
</tr>
<tr>
<td>Federal Aviation Administration (FAA)</td>
<td>The U.S. government agency responsible for aircraft safety, movement, and control.</td>
</tr>
<tr>
<td>Federal Aviation Regulation (FAR)</td>
<td>The rules and regulations codified in the Code of Federal Regulations that govern the operation of aircraft, airways, airports, and airmen.</td>
</tr>
<tr>
<td>Fix</td>
<td>A geographical position determined by visual reference to surface features, by reference to one or more Navaids, or by other navigational methods.</td>
</tr>
<tr>
<td>Fleet Mix</td>
<td>The distribution of differing aircraft types operated at a particular airport or by an airline.</td>
</tr>
<tr>
<td>Flight Plan</td>
<td>Specific information related to the intended flight of an aircraft. A flight plan is filed with an FAA Flight Service Station or an Air Traffic Control facility.</td>
</tr>
<tr>
<td>General Aviation (GA)</td>
<td>Civil aviation excluding air carriers, commercial operations, and military aircraft.</td>
</tr>
<tr>
<td>Glide Slope</td>
<td>Generally a 3-degree angle of approach to a runway established by means of airborne instruments used during instrument approaches, or visual ground aids for the visual portion of an instrument approach and landing.</td>
</tr>
<tr>
<td>Ground Power Unit (GPU)</td>
<td>A source of power, generally from the terminals, for aircraft to use while their engines are off.</td>
</tr>
<tr>
<td>Ground Track</td>
<td>The apparent path an aircraft would follow on the ground if its airborne flight path were plotted on the terrain.</td>
</tr>
<tr>
<td>Instrument Approach</td>
<td>A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually.</td>
</tr>
<tr>
<td>Glossary and Abbreviations</td>
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<tr>
<td><strong>Instrument Flight Rules</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(IFR)</strong> Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.</td>
<td></td>
</tr>
<tr>
<td><strong>Instrument Landing System</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(ILS)</strong> A system of precise instrumentation that normally consists of a localizer, glide slope, outer marker, middle marker, and approach lights, which aid the pilots approach to an airport.</td>
<td></td>
</tr>
<tr>
<td><strong>Instrument Meteorological Conditions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(IMC)</strong> Weather conditions expressed in terms of visibility, distance from clouds, and cloud ceilings during which all aircraft are required to operate using instrument flight rules.</td>
<td></td>
</tr>
<tr>
<td><strong>Integrated Noise Model</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(INM)</strong> A noise model developed by the FAA for evaluating aircraft noise impacts in the vicinity of airports. The model utilizes flight track information, aircraft fleet mix, standard and user defined aircraft profiles and terrain as inputs. The model produces noise exposure contours that are used for land use compatibility maps.</td>
<td></td>
</tr>
<tr>
<td><strong>Knots</strong></td>
<td></td>
</tr>
<tr>
<td>A measure of speed used in aviation. One knot is equal to one nautical mile per hour (1.15 knots = 1 mile).</td>
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</tr>
<tr>
<td><strong>Localizer</strong></td>
<td></td>
</tr>
<tr>
<td>A navigational aid that consists of a directional pattern of radio waves modulated by two signals which, when receding with equal intensity, are displayed by compatible airborne equipment as an “on-course” indication, and received in unequal intensity are displayed as an “off-course” indication.</td>
<td></td>
</tr>
<tr>
<td><strong>Localizer Type Directional Aid</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(LDA)</strong> A facility of comparable utility and accuracy to a localizer, but not part of a complete ILS and not aligned with the runway.</td>
<td></td>
</tr>
<tr>
<td><strong>Middle Marker</strong></td>
<td></td>
</tr>
<tr>
<td>A beacon that defines a point along the glide slope of an ILS, normally located at or near the point of decision height.</td>
<td></td>
</tr>
<tr>
<td><strong>Missed Approach Procedure</strong></td>
<td></td>
</tr>
<tr>
<td>A procedure used to redirect a landing aircraft back around to attempt another landing. This may be due to visual contact not established at authorized minimums or instructions from air traffic control, or for training or other reasons.</td>
<td></td>
</tr>
<tr>
<td><strong>National Airspace System</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(NAS)</strong> The common network of US airspace including: air navigation facilities; equipment and services; airports or landing areas; aeronautical charts; information and services; rules, regulations and procedures; technical information; manpower and materials.</td>
<td></td>
</tr>
<tr>
<td><strong>Navigational Aid</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(Navaid)</strong> Any facility used for guiding or controlling flight in the air or during the landing and takeoff of aircraft.</td>
<td></td>
</tr>
<tr>
<td><strong>Noise Impact Notification Area</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(NINA)</strong> The area designated in the 1994 CLUP most impacted by aircraft operations to and from CRQ.</td>
<td></td>
</tr>
<tr>
<td>Glossary and Abbreviations</td>
<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td><strong>Noise Exposure Map</strong> (NEM)</td>
<td>A scaled, geographic depiction of an airport, its noise contours, and surrounding area developed in accordance with section A150.101 of Appendix A of 14 CFR 150, including the accompanying documentation setting forth the required descriptions of forecast aircraft operations at that airport during the fifth calendar year beginning after submission of the map, together with the ways, if any, those operations will affect the map (including noise contours and the forecast land uses).</td>
</tr>
<tr>
<td><strong>Non-Directional Beacon</strong> (NDB)</td>
<td>A signal that can be read by pilots of aircraft with direction finding equipment. Used to determine bearing and can home in or track to or from the desired point.</td>
</tr>
<tr>
<td><strong>Non-Precision Approach Procedure</strong></td>
<td>A standard instrument approach procedure in which no electronic glide slope is provided.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td>An arrival, departure or overflight of an aircraft. Every flight requires at least two operations, a take-off and a landing.</td>
</tr>
<tr>
<td><strong>Outer Marker</strong></td>
<td>An ILS navigation facility located four to seven miles from the runway on the extended centerline indicating the beginning of the final approach to landing.</td>
</tr>
<tr>
<td><strong>Overflight</strong></td>
<td>Aircraft originating or terminating outside the metropolitan area that transit the airspace without landing.</td>
</tr>
<tr>
<td><strong>Run-up</strong></td>
<td>A procedure used to test aircraft engines (typically after maintenance) to ensure safe operation prior to returning the aircraft to service. The power settings tested range from idle to full power and may vary in duration.</td>
</tr>
<tr>
<td><strong>Run-up Location or Areas</strong></td>
<td>Specified areas on the airfield where scheduled engine run-ups may occur. These locations are usually sited so as to produce minimum noise impact in surrounding neighborhoods.</td>
</tr>
<tr>
<td><strong>Single Event Noise Exposure Level</strong> (SENEL)</td>
<td>The noise exposure level of a single aircraft event measured over the time between the initial and final points when the noise level exceeds a predetermined threshold.</td>
</tr>
<tr>
<td><strong>Stage 2 And Stage 3 Aircraft</strong></td>
<td>Commercial jet aircraft currently meet either stage 2 or stage 3 noise standards. Stage 2 engines are older and noisier than stage 3 engines. By the year 2000 most jet engines used in the United States must meet stage 3 noise standards (Airport Noise and Capacity Act of 1990). Stage 3 aircraft incorporate the latest technology for suppressing jet-engine noise and, in general, are 10 dB quieter than stage 2 aircraft. This represents a halving of perceived noise; however, actual noise reduction varies by aircraft.</td>
</tr>
<tr>
<td>Glossary and Abbreviations</td>
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</tr>
<tr>
<td><strong>Terminal Radar Approach Control (TRACON)</strong></td>
<td>An FAA air traffic control facility that controls aircraft arriving and departing or transiting airspace controlled by the facility. The TRACON for all Southern California airports is located in San Diego.</td>
</tr>
<tr>
<td><strong>Visual Approach</strong></td>
<td>An arrival procedure in which an aircraft on an IFR flight plan, operating in VFR conditions under the control of an air traffic facility and having air traffic control authorization, may proceed to the destination airport under VFR.</td>
</tr>
<tr>
<td><strong>Visual Flight Rules (VFR)</strong></td>
<td>Rules that govern the procedures for conducting flight under visual conditions. The term &quot;VFR&quot; is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.</td>
</tr>
</tbody>
</table>
C  AIRCRAFT NOISE AND ITS METRICS

Aircraft noise originates from the engine as well as the airframe (structure) of aircraft. However, the engines are the most significant source of noise. While noise generated by propeller-driven aircraft can be annoying, jet aircraft are commonly the source of disturbing noise at airports. Three basic types of jet engines are operated today – turboprop, turbofan and turbojet engines.

The core of turbofan and turbojet engines consists of a compressor, combustion chambers and a turbine. A turbofan engine also has a front fan. The major sources of noise include the core engine fan streams, the compressor, turbine blades, and exhaust nozzles. As a turbofan-engined aircraft approaches to land on a runway, the front fan is also a major noise source. It has been found in several cases that the sound energy produced by a turbojet engine is greater than that of a turbofan engine with an equivalent thrust rating.

The noise produced by jet aircraft flyovers is characterized by an increase in sound energy as the aircraft approach, up to a maximum level. This sound level begins to lessen as the aircraft pass overhead and then decreases in a series of lesser peaks as the aircraft departs the area.

Noise produced by propeller driven aircraft and helicopters emanates primarily from the propeller blades, rotors, and engine exhaust. There are two components of blade/rotor noise, namely vortex and periodic. Vortex noise is generated by the formation and shedding of vortices in the airflow past the blade. Periodic noise is produced by the oscillating pressure field in the air that results from the passage of air past the blade. Blade slap is an additional source of noise in helicopters. This is high-amplitude periodic noise and highly modulated vortex noise caused by fluctuating forces as one blade cuts through the tip vortices of another.

The concept of decibels and noise metrics are presented in the following sections.

C.1  THE DECIBEL, dB

Sound is a complex physical phenomenon consisting of complex minute vibrations traveling through a medium, such as air. These vibrations are sensed by the human ear as sound pressure. Because of the vast range of sound pressure or intensity detectable by the human ear, sound pressure level (SPL) is represented on a logarithmic scale known as decibels (dB). Decibels are expressed as a logarithm of the ratio of two pressures. The numerator is the pressure of the sound source of interest and the denominator is the reference pressure (the quietest sound we can hear). A sound level of 0 dB is approximately the threshold of human hearing (of a young person with good hearing) and is barely audible under extremely quiet (laboratory-type) listening conditions. A SPL of 120 dB begins to be felt inside the ear as discomfort and pain at approximately 140 dB. Most environmental sounds have SPLs ranging from 30 to 100 dB.

Because decibels are logarithmic, they cannot be added or subtracted directly like other (linear) numbers. For example, if two sound sources each produce 100 dB, when they are operated together they will produce 103 dB, not 200 dB. Four 100 dB sources operating together again double the sound energy, resulting in a total SPL of 106 dB, and so on. In addition, if one source is much louder than another, the two sources operating together will produce the same SPL as if the louder source were operating alone.
For example, a 100 dB source plus an 80 dB source produce 100 dB when operating together. The louder source masks the quieter one.

Two useful rules to remember when comparing SPLs are: 1) most people perceive a 6 to 10 dB increase in SPL between two noise events to be about a doubling of loudness, and 2) changes in SPL of less than about 3 dB between two events are not easily detected outside of a laboratory.

C.1.1 **A-WEIGHTED DECIBEL, dBA**

Frequency, or pitch, is a basic physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 15,000 Hertz (Hz). Because the human ear is more sensitive to middle and high frequencies (i.e., 1000 to 4000 Hz), a frequency weighting called “A” weighting is applied to the measurement of sound. The internationally standardized "A" filter approximates the sensitivity of the human ear and helps in assessing the perceived loudness of various sounds. In this document all sound levels are A-weighted sound levels and the adjective "A-weighted" has been omitted.

Figure Noise1-1 charts common indoor and outdoor sound levels. A quiet rural area at nighttime may be 30 dBA or lower while the operator of a typical gas lawn mower may experience a level of 90 dBA. Similarly, the level in a library may be 30 dBA or lower while the listener at a rock band concert may experience levels near 110 dBA.

C.1.2 **MAXIMUM SOUND LEVEL, L_max**

Sound levels vary with time. For example, the sound increases as an aircraft approaches, then falls and blends into the ambient or background as the aircraft recedes into the distance. Because of this variation, it is often convenient to describe a particular noise "event" by its highest or maximum sound level (L_max). Note L_max describes only one dimension of an event; it provides no information on the cumulative noise exposure generated by a sound source. In fact, two events with identical L_max may produce very different total exposures. One may be of very short duration, while the other may be much longer.

C.1.3 **SOUND EXPOSURE LEVEL, SEL**

The most common measure of noise exposure for a single aircraft flyover is the sound exposure level (SEL). SEL is a summation of the A-weighted sound energy at a particular location over the true duration of a noise event normalized to a fictional duration of one second. The true duration is defined as the amount of time the noise event exceeds background levels. For events lasting more than one second, SEL does not directly represent the sound level heard at any given time, but rather provides a measure of the net impact of the entire acoustic event.

The normalization to the fictional duration of one second enables the comparison of noise events with differing true duration and/or maximum level. Because the SEL is normalized to one second, it will almost always be larger in magnitude than the L_max for the event. In fact, for most aircraft events, the SEL is about 7 to 12 dB higher than the L_max. Additionally, since it is a cumulative measure, a higher SEL can result from either a louder or longer event, or some combination.
As SEL combines an event’s overall sound level along with its duration, SEL provides a comprehensive way to describe noise events for use in modeling and comparing noise environments. Computer noise models, such as the one employed for this document, base their computations on these SELs.

Figure Noise1-2 shows an event’s “time history”, the variation of sound level with time. For typical sound events experienced by a fixed listener, like a person experiencing an aircraft pass-by, the sound level rises as the source (or aircraft) approaches the listener, peaks and then diminishes as the aircraft flies away from the listener. The area under the time history curve represents the overall sound energy of the noise event. The $L_{\text{max}}$ for the event shown in the figure was 93.5 dBA. Compressing the event’s total sound energy into one second to compute its SEL yields 102.7 dBA.

C.1.4 **EQUIVALENT SOUND LEVEL, L\(_{\text{eq}}\)**

Maximum A-weighted levels and SELs are used to measure the noise associated with individual events. The remaining metrics in this section and in the one following apply to longer-term cumulative noise exposure that often includes many events.

The first cumulative noise metric discussed herein, the Equivalent Sound Level (abbreviated L\(_{\text{eq}}\)), is a measure of the exposure resulting from the accumulation of A-weighted sound levels over a particular period of interest (e.g., an hour, an 8-hour school day, nighttime, or a full 24-hour day). However, because the length of the period can be different depending on the time frame of interest, the applicable period should always be identified or clearly understood when discussing the metric. Such durations are often identified through a subscript, for example, L\(_{\text{eq}}(8)\) or L\(_{\text{eq}}(24)\).

Conceptually, L\(_{\text{eq}}\) may be thought of as a constant sound level over the period of interest that contains as much sound energy as the actual time-varying sound level with its normal ‘peaks’ and ‘valleys’. In the context of noise from typical aircraft flight events and as noted earlier for SEL, L\(_{\text{eq}}\) does not represent the sound level heard at any particular time, but rather represents the total sound exposure for the period of interest. Also, it should be noted that the ‘average’ sound level suggested by L\(_{\text{eq}}\) is not an arithmetic value, but a logarithmic, or ‘energy-averaged,’ sound level. Thus, loud events tend to dominate the noise environment described by the L\(_{\text{eq}}\) metric.

As for its application to airport noise issues, L\(_{\text{eq}}\) is often presented for consecutive 1-hour periods to illustrate how the hourly noise dose rises and falls throughout a 24-hour period, as well as how certain hours are significantly affected by a few loud aircraft.
C.1.5. **DAY-NIGHT AVERAGE SOUND LEVEL, DNL, AND COMMUNITY NOISE EQUIVALENT LEVEL, CNEL**

Time-average sound levels are measurements of sound levels averaged over a specified length of time. These levels provide a measure of the average sound energy during the measurement period. For the evaluation of community noise effects, and particularly aircraft noise effects, the Day-Night Average Sound Level (DNL) is often used. DNL (logarithmically) averages aircraft sound levels at a location over a complete 24-hour period, with a 10-decibel adjustment added to those noise events occurring between 10:00 p.m. and 7:00 a.m. (local time) the following morning. The 10:00 p.m. to 7:00 a.m. period is defined as nighttime (or night) and the 7:00 a.m. to 10:00 p.m. period is defined as daytime.

California requires the Community Noise Equivalent Level (CNEL) descriptor. CNEL is identical to DNL except that CNEL’s daytime period is defined from 7:00 a.m. to 7:00 p.m. CNEL has an additional period, called evening, which carries an approximate 5-decibel adjustment added to those events occurring between 7:00 p.m. and 10:00 p.m.

Because of the increased sensitivity to noise during normal sleeping hours and because ambient (without aircraft) sound levels during nighttime are typically about 10 dB lower than during daytime hours, the 10-decibel "penalty" represents the added intrusiveness of sounds occurring during nighttime hours. Similarly, regarding CNEL’s evening period, the approximate 5-decibel penalty represents the added intrusiveness of sounds during the evening period when people are most likely having dinner, watching television, etc.

CNEL and DNL account for the noise levels (in terms of SEL) of all individual aircraft events, the number of times those events occur and the period of day/night in which they occur. Values of DNL and CNEL can be measured with standard monitoring equipment or predicted with computer models. This document utilizes estimates of CNEL with an FAA-approved computer-based noise model. CNEL and DNL are used interchangeably in this section.

Typical DNL values for a variety of noise environments are shown in Figure Noise1-3. DNL values can be approximately 85 dBA outdoors under a flight path within a mile of a major airport and 40 dBA or less outdoors in a rural residential area.

Due to the DNL (or CNEL) descriptor’s close correlation with the degree of community annoyance from aircraft noise (the subject of the next section), DNL has been formally adopted by most federal agencies for measuring and evaluating aircraft noise for land use planning and noise impact assessment. Federal committees such as the Federal Interagency Committee on Urban Noise (FICUN) and the Federal Interagency Committee on Noise (FICON) which include the EPA, FAA, Department of Defense, Department of Housing and Urban Development (HUD), and Veterans Administration (VA), found DNL to be the best metric for land use planning. They also found no new cumulative sound descriptors or metrics of sufficient scientific standing to substitute for DNL. Other cumulative metrics could be used only to supplement, not replace DNL. Furthermore, Part 150 requires that DNL (or CNEL in California) be used in describing cumulative noise exposure and in identifying aircraft noise/land use compatibility issues (EPA, 1974; FICUN, 1980; FICON, 1992; 14 CFR Part 150, 1995).
C.2 THE EFFECTS OF AIRCRAFT NOISE ON PEOPLE

This section addresses three ways humans can be affected by aircraft noise: annoyance, speech interference and sleep disturbance.

The guidelines described below represent a compilation of the results of extensive scientific research into noise-related activity interference and attitudinal response. However, reviewers of CNEL contours should recognize the highly subjective nature of response to noise, and that special circumstances can affect individuals’ tolerances. For example, a high non-aircraft background noise level can reduce the...
significance of aircraft noise (relative to the observer), such as in areas constantly exposed to relatively high levels of traffic noise. Alternatively, residents of areas with unusually low background levels may find relatively low levels of aircraft noise annoying.

Response may also be affected by expectation and experience. People may get used to a level of exposure that guidelines indicate may be unacceptable, and changes in exposure may generate response that is far greater than that which the guidelines might suggest.

### C.2.1 Community Annoyance

The primary potential effect of aircraft noise on exposed communities is one of annoyance. Noise annoyance is defined by the U.S. Environmental Protection Agency (EPA) as any negative subjective reaction on the part of an individual or group (EPA, 1974). Scientific studies and a large number of social/attitudinal surveys have been conducted to appraise people’s annoyance to all types of environmental noise, especially aircraft events. These studies and surveys have found the DNL to be the best measure of this annoyance (EPA, 1974; FICUN, 1980; FICON, 1992; ANSI, 1980; ANSI, 1988; Schultz, 1978; Fidell, et. al., 1991).

The relationship between annoyance and DNL determined by the scientific community and endorsed by many federal agencies, including the FAA, is shown in Figure Noise 1-4. For a DNL of 65 dBA, approximately 13% of the exposed population would be highly-annoyed. The figure also shows at very low values of DNL, such as 45 dB or less, 1% or less of the exposed population would be highly annoyed. At very high values of DNL, such as 90 dBA, more than 80% of the exposed population would be highly annoyed.

The use of DNL (or CNEL) has been criticized as not accurately representing community annoyance and land use compatibility with aircraft noise. One frequent criticism is based on the inherent feeling that people react more to single noise events and not as much to ‘meaningless’ time-average sound levels. In fact, a time-average noise metric, such as CNEL, takes into account both the noise levels of all individual events which occur during a 24-hour period and the number of times those events occur. As described briefly above, the logarithmic nature of the decibel unit causes the noise levels of the loudest events to control the 24-hour average.

As a simple example of this characteristic, consider a case in which only one aircraft overflight occurs in daytime hours during a 24-hour period, creating a (real time, measured) sound level of 100 dBA L eq for 30 seconds. During the remaining 24 hours, 59 minutes and 30 seconds of the day, the ambient sound level is 50 dBA. The CNEL for this example 24-hour period is 66.0 dBA. As a second example, assume that 10 such 30-second overflights (of 100 dBA L eq each) occur in daytime hours during the next 24-hour period, with the same ambient sound level of 50 dBA during the remaining 23 hours and 55 minutes of the day. The CNEL for this second 24-hour period is 75.5 dBA. Clearly, the average of noise over a 24-hour period does not ignore the louder single events and tends to emphasize both the sound levels and number of those events. This is the basic concept of a time-average sound metric, and, specifically, the CNEL.
It is often suggested a lower DNL, such as 60 or 55 dB, be adopted as the threshold of community noise annoyance for FAA environmental analysis documents. While there is no technical reason why a lower level cannot be measured or calculated for comparison purposes, a DNL of 65 dB:

1. Provides a valid basis for comparing and assessing community noise effects.
2. Represents a noise exposure level normally dominated by aircraft noise and not other community or nearby highway noise sources.
3. Reflects the FAA’s threshold for grant-in-aid funding of airport noise mitigation projects.
4. HUD also established a DNL standard of 65 dBA for eligibility for federally guaranteed home loans.

For this Part 150, CNEL equal to or greater than 65 dB were used for assessing community noise impact.

**Figure Noise1-4**

Relationship Between Annoyance And Day-Night Average Sound Level

Source: Federal Interagency Committee on Noise (FICON), "Federal Agency Review of Selected Airport Noise Analysis Issues", August 1992, p. 3-6, Figure 3.1, USAF (Finegold et. al. 1992) curve based on 400 points.

C.2.2 SPEECH INTERFERENCE

A primary effect of aircraft noise is its tendency to drown out or "mask" speech, making it difficult to carry on a normal conversation. As an aircraft approaches and its sound level increases, speech becomes harder to hear. As the ambient level increases, the talker must raise his/her voice, or the individuals must get closer together to continue talking.
For typical communication distances of 3 or 4 feet (1 to 1.5 meters), acceptable outdoor conversations can be carried on in a normal voice as long as the ambient noise outdoors is less than about 65 dBA (FICON, 1992). If the noise exceeds this level, intelligibility would be lost unless vocal effort was increased or communication distance was decreased.

Indoor speech interference can be expressed as a percentage of sentence intelligibility between two people speaking in relaxed conversation approximately one meter apart in a typical living room or bedroom (EPA, 1974). As shown in Figure Noise1-5, the percentage of sentence intelligibility is a non-linear function of the (steady) indoor ambient or background sound level. Indoor sentence intelligibility is 100 percent for background levels below 57 dBA and less than 10 percent for background levels above 73 dBA. In the same document from which Figure Noise 1-5 was taken, the EPA established an indoor criterion of 45 dBA DNL as requisite to protect against speech interference indoors (EPA, 1974).

![Figure Noise1-5 Percent Sentence Intelligibility For Indoor Speech](image)


### C.2.3 Sleep Disturbance

Research on sleep disruption from noise has led to widely varying observations. In part, this is because: (1) sleep can be disturbed without causing awakening, (2) the deeper the sleep the more noise it takes to cause arousal, (3) the tendency to awaken increases with age, and other factors. The U.S. Environmental Protection Agency identified an indoor DNL of 45 dB as necessary to protect against sleep interference (EPA, 1974). Assuming a conservative structural noise insulation of 20 dB for typical dwellings with
windows closed, an indoor DNL of 45 dB corresponds to an outdoor DNL of 65 dB as minimizing sleep interference.

In June 1997, the Federal Interagency Committee on Aviation Noise (FICAN) reviewed the sleep disturbance issue and presented a sleep disturbance dose-response prediction curve (FICAN, 1997) as the recommended tool for analysis of potential sleep disturbance for residential areas. The FICAN curve, shown in Figure Noise1-6, was based on data from field studies of major civilian and military airports. For an indoor SEL of 60 dBA, Figure Noise1-6 predicts a maximum of approximately 5 percent of the exposed residential population would be behaviorally awakened. FICAN cautions that this curve should only be applied to long-term adult residents. Furthermore, the relationship between SEL and awakenings presented herein is for each event, not a cumulative percent awakening for all nighttime events.

It should be noted that the FICAN curve shown in the figure is conservative as it is aligned with the upper bounds of the field studies. If the field data was curve-fitted (Fidell, et. al, 2000), the maximum percent awakenings would be less than the upper bound depicted by the FICAN curve. In a range of indoor SEL from 50 dBA to 90 dBA, the curve-fit methodology would yield from 1% to approximately 7% less awakenings than the FICAN curve.

Source: FICAN, 1997; Fidell, et. al, 2000;
APPENDIX D

Modeling Support Data and Flight Operations Density Maps

D.1 MODELING SUPPORT DATA

Table D-1 describes all of the representative INM types used in this study. Table D-2 shows the representative INM aircraft associated with each of the Flight Progress Strips database’s aircraft types.

D.2 FLIGHT OPERATIONS DENSITY MAPS

The Airport’s Global Environment Management System (GEMS) records the position as a function of time of most aircraft as they fly in the vicinity of the airport. With built-in algorithms, GEMS determines the type of operation (departure, arrival, training, flyover or unknown) and the runway (06, 24, or unknown). With the flight’s time stamp, time of day relative to the CNEL metric (daytime, evening or nighttime) can also be ascertained. As the flight passes over a set of user-defined grid area, GEMS counts the number of passes for each grid point in a user-defined gridded area. Knowing the total number of flights for each grid point allows a map of flight density to be created.

GEMS’s flight density mapping function was used to generate grids of flight densities for most airport operations for all of CY2002. The gridded area was a rectangle encompassing the County’s Noise Impact Notification Area (NINA) for CRQ with grid points spaced 100 meters in north-south and east-west directions. The gridded area included approximately 32,000 grid points. Flight tracks with points up to 10,000 ft altitude re MSL were included.

Grids for 35 combinations of runway, operation type and time period were computed. Table D-1 shows the inventory of computed grids. One combination not obtained or plotted was daytime flyovers (with unknown runway). These would be non-airport operations and would not be included in the Part 150 study would have been for informational purposes only. There was insufficient time available to have GEMS compute this particular combination. Nearly 239,000 flights are represented by the combinations shown in Table D-3.

Of the 35 computed grids, 30 were plotted and are shown in Figures D-1 through D-30. After consultation with the Airport and FAA Air Traffic Control Tower staff, these flight track density plots were the basis of the modeled runway use, ‘nominal’ flight tracks and track use and, therefore, the basis for the NEMs.
## Table D-1
Description of INM Aircraft Types

<table>
<thead>
<tr>
<th>INM ID</th>
<th>Description</th>
<th>Fixed or Rotary-Wing</th>
<th>Engine Type</th>
<th>Number of Engines</th>
<th>Civilian Jet FAR36 Noise Stage</th>
<th>Maximum Gross Takeoff Weight (lbs)</th>
<th>Maximum Gross Landing Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B206L</td>
<td>Bell 206L</td>
<td>Rotary</td>
<td>Ts</td>
<td>1</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>B222</td>
<td>Bell 222</td>
<td>Rotary</td>
<td>Ts</td>
<td>2</td>
<td>NA</td>
<td>6,100</td>
<td>6,100</td>
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<tr>
<td>BEC58P</td>
<td>BARON 58P/TS10-520-L</td>
<td>Fixed</td>
<td>P</td>
<td>2</td>
<td>NA</td>
<td>121,000</td>
<td>110,000</td>
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<tr>
<td>C12</td>
<td>C-12 Huron</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>12,500</td>
<td>12,500</td>
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<tr>
<td>C9A</td>
<td>C-9 Nightingale (similar to civilian DC-9)</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>NA</td>
<td>121,000</td>
<td>110,000</td>
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<td>CIT3</td>
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<td>3</td>
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<td>17,000</td>
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<tr>
<td>CL600</td>
<td>Challenger CL600/ALF502L</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
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<td>33,000</td>
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<td>CL601</td>
<td>Challenger CL601/CF34-8A</td>
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<td>Cessna 172R / Lycoming O-360-L2A</td>
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<tr>
<td>CNA206</td>
<td>Cessna 206H / Lycoming O-540-AC</td>
<td>Fixed</td>
<td>P</td>
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<td>NA</td>
<td>3,600</td>
<td>3,600</td>
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<tr>
<td>CNA441</td>
<td>Cessna Conquest I/TPE331-8</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>9,900</td>
<td>9,400</td>
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<tr>
<td>CNA500</td>
<td>Cessna Citation 2JT15D-4</td>
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<td>J</td>
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<td>3</td>
<td>14,700</td>
<td>14,000</td>
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<tr>
<td>CNA750</td>
<td>Cessna Citation X / Rolls Royce Allison AE3007C</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
<td>35,700</td>
<td>31,800</td>
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<tr>
<td>CVR580</td>
<td>Convair 580</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>58,000</td>
<td>52,000</td>
</tr>
<tr>
<td>DHC6</td>
<td>DeHavilland Dash 6PT6A-27</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>12,500</td>
<td>12,300</td>
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<tr>
<td>DHC8</td>
<td>DeHavilland Dash 8-100/PW121</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>34,500</td>
<td>33,900</td>
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<tr>
<td>EMB120</td>
<td>Embraer 120 ER/ Pratt &amp; Whitney PW118</td>
<td>Fixed</td>
<td>T</td>
<td>2</td>
<td>NA</td>
<td>26,433</td>
<td>25,794</td>
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<tr>
<td>FAL20</td>
<td>Falcon 20/CF700-2D-2</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>2</td>
<td>28,700</td>
<td>27,300</td>
</tr>
<tr>
<td>GASEPF</td>
<td>Generic 1985 Single-engine fixed-pitch propeller-driven</td>
<td>Fixed</td>
<td>P</td>
<td>1</td>
<td>NA</td>
<td>2,200</td>
<td>2,200</td>
</tr>
<tr>
<td>GASEPV</td>
<td>Generic 1985 Single-engine variable-pitch propeller-driven</td>
<td>Fixed</td>
<td>P</td>
<td>1</td>
<td>NA</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>GIIB</td>
<td>Gulfstream GIIB/SPEY Mk511-8</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>2</td>
<td>69,700</td>
<td>58,500</td>
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</table>
Table D-1 (continued)
Description of INM Aircraft Types

<table>
<thead>
<tr>
<th>INM ID</th>
<th>Description</th>
<th>Fixed or Rotary-Wing</th>
<th>Engine Type</th>
<th>Number of Engines</th>
<th>Civilian Jet FAR36 Noise Stage</th>
<th>Maximum Gross Takeoff Weight (lbs)</th>
<th>Maximum Gross Landing Weight (lbs)</th>
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<tbody>
<tr>
<td>GIV</td>
<td>Gulfstream GIV/TAY 611</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
<td>74,600</td>
<td>66,000</td>
</tr>
<tr>
<td>GV</td>
<td>Gulfstream GV/BR 710</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
<td>90,500</td>
<td>75,300</td>
</tr>
<tr>
<td>H500D</td>
<td>McDonnell Douglas Model 500D</td>
<td>Rotary</td>
<td>Ts</td>
<td>1</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>IA1125</td>
<td>Israeli Industries Astra 1125/TFE731-3A</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
<td>23,500</td>
<td>20,700</td>
</tr>
<tr>
<td>LEAR25</td>
<td>Lear 25/CJ610-8</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>2</td>
<td>15,000</td>
<td>13,500</td>
</tr>
<tr>
<td>LEAR35</td>
<td>Lear 36/TFE731-2</td>
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<td>J</td>
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<td>3</td>
<td>18,300</td>
<td>15,300</td>
</tr>
<tr>
<td>MU3001</td>
<td>Mitsubishi MU300-10/JT15D-4</td>
<td>Fixed</td>
<td>J</td>
<td>2</td>
<td>3</td>
<td>14,100</td>
<td>13,200</td>
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<tr>
<td>SA350D</td>
<td>Aerospatiale AS350 A-Star</td>
<td>Rotary</td>
<td>Ts</td>
<td>1</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>SA365N</td>
<td>Aerospatiale SA.365 Dauphin 2</td>
<td>Rotary</td>
<td>Ts</td>
<td>2</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

* J=Jet; T=Turboprop; P=Piston; Ts=Turboshaft; NA = not applicable
# Appendix D

## Modeling Support Data and Flight Operations Density Maps

**Table D-2**

**INM Aircraft Types Associated With Flight Progress Strips Aircraft Types**

<table>
<thead>
<tr>
<th>Aircraft Type (No Slants)</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Number &amp; Type Engines</th>
<th>Weight Class</th>
<th>INM V6.1 Type</th>
<th>FAA Substitute</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA5</td>
<td>Grumman Aerospace Corp.</td>
<td>Cheetah AA-5, Traveller, Tiger</td>
<td>1P</td>
<td>S</td>
<td>GASEPF</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>AC11</td>
<td>Rockwell International Corp.</td>
<td>Commander 112/114</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td>Per CRQ</td>
</tr>
<tr>
<td>AC12</td>
<td>Rockwell International Corp.</td>
<td>Aero Commander 112</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td>Per CRQ</td>
</tr>
<tr>
<td>AC69</td>
<td>Rockwell International Corp.</td>
<td>Jet Prop Commander</td>
<td>2T</td>
<td>S</td>
<td>CNA441</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>AEST</td>
<td>Piper Aircraft Corp.</td>
<td>Aero Star 600/700</td>
<td>2P</td>
<td>S</td>
<td>BEC58P</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>ASTR</td>
<td>Israel Aircraft Industries &amp; Astra Jet</td>
<td>Astra 1125</td>
<td>2J</td>
<td>S</td>
<td>IA1125</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>B190</td>
<td>Beech Aircraft Company</td>
<td>Beech 1900/C-123</td>
<td>2T</td>
<td>S</td>
<td>DHC6</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>B222</td>
<td>Bell Helicopter Textron</td>
<td>Model 222, 230, 430</td>
<td>2T</td>
<td>S</td>
<td>Helo8222</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>B35</td>
<td>Beech</td>
<td>Bonanza</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>BE20</td>
<td>Beech Aircraft Company</td>
<td>Super King Air 200, 1300</td>
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<td>S</td>
<td>DHC6</td>
<td>Y</td>
<td>SD330 Or DHC6</td>
</tr>
<tr>
<td>BE23</td>
<td>Beech Aircraft Company</td>
<td>Sundowner 23, Musketeer 23</td>
<td>1P</td>
<td>S</td>
<td>GASEPF</td>
<td>Y</td>
<td></td>
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<tr>
<td>BE24</td>
<td>Beech Aircraft Company</td>
<td>Sierra 24, Musketeer Super</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>BE30</td>
<td>Beech Aircraft Company</td>
<td>Super King Air 300/300LW</td>
<td>2T</td>
<td>S</td>
<td>DHC6</td>
<td>Y</td>
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<tr>
<td>BE33</td>
<td>Beech Aircraft Company</td>
<td>Bonanza 33, Debonair (E-24)</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
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<tr>
<td>BE35</td>
<td>Beech Aircraft Company</td>
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<td>1P</td>
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<td>BE36</td>
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<td>S</td>
<td>GASEPV</td>
<td>Y</td>
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<tr>
<td>BE40</td>
<td>Beech Aircraft Company</td>
<td>Beechjet 400/T-1 Jayhawk</td>
<td>2J</td>
<td>S</td>
<td>LEAR35</td>
<td>Y</td>
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</tr>
<tr>
<td>BE55</td>
<td>Beech Aircraft Company</td>
<td>Baron 55/Chochise</td>
<td>2P</td>
<td>S</td>
<td>BEC58P</td>
<td>Y</td>
<td></td>
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<tr>
<td>BE58</td>
<td>Beech Aircraft Company</td>
<td>Baron 58, Foxstar</td>
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<td>S</td>
<td>BEC58P</td>
<td>Y</td>
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<td>BE76</td>
<td>Beech Aircraft Company</td>
<td>Duchess 76</td>
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<td>BEC58P</td>
<td>Y</td>
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<td>Beech</td>
<td>King Air C90, E90</td>
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<td>S</td>
<td>CNA441</td>
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<tr>
<td>BE9L</td>
<td>Beech Aircraft Company</td>
<td>King Air 90, A90 To E90 (T-44, V-C6), Taurus 90</td>
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<td>S</td>
<td>CNA441</td>
<td>Y</td>
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<tr>
<td>Bl-wing</td>
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<td>Bi-plane (Travelair)</td>
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<td>S</td>
<td>GASEPF</td>
<td>Y</td>
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<td>BL17</td>
<td>Bellanca Aircraft</td>
<td>Super Viking, Turbo Viking</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td>Per CRQ</td>
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<td>BL26</td>
<td>Bellanca Aircraft</td>
<td>Bellanca Model 17-30A, Super Viking 300A</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td>Per CRQ</td>
</tr>
<tr>
<td>BSR20</td>
<td>Cirrus</td>
<td>SR20</td>
<td>1P</td>
<td>S</td>
<td>GASEPV</td>
<td>Y</td>
<td>Per CRQ</td>
</tr>
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<td>C12</td>
<td>Beech</td>
<td>King Air</td>
<td>2T</td>
<td>S</td>
<td>C12</td>
<td>Y</td>
<td></td>
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<td>C150</td>
<td>Cessna Aircraft Company</td>
<td>Cessna 150</td>
<td>1P</td>
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<td>Cessna 152</td>
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<td>S</td>
<td>CNA172</td>
<td>Y</td>
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<td>S</td>
<td>CNA172</td>
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## Table D-2 (continued)
**INM Aircraft Types Associated With Flight Progress Strips Aircraft Types**

<table>
<thead>
<tr>
<th>Aircraft Type (No Slants)</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Number &amp; Type Engines</th>
<th>Weight Class</th>
<th>INM V6.1 Type</th>
<th>FAA Substitute</th>
<th>Comment</th>
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<tbody>
<tr>
<td>C172</td>
<td>Cessna Aircraft Company</td>
<td>Skyhawk 172/Cutlass/Mescalero</td>
<td>1P</td>
<td>S</td>
<td>CNA172</td>
<td>Y</td>
<td></td>
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<tr>
<td>C175</td>
<td>Cessna Aircraft Company</td>
<td>Skylark 175</td>
<td>1P</td>
<td>S</td>
<td>GASEPF</td>
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<td>C177</td>
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<td>Cardinal 177</td>
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<td>S</td>
<td>CNA172</td>
<td>Y</td>
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<td>Cessna Aircraft Company</td>
<td>Skywagon 180 (U-17C)</td>
<td>1P</td>
<td>S</td>
<td>CNA206</td>
<td>Y</td>
<td></td>
</tr>
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## Table D-2 (continued)
INM Aircraft Types Associated With Flight Progress Strips Aircraft Types

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<th>Model</th>
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<th>Weight Class</th>
<th>INM V6.1 Type</th>
<th>FAA Substitute</th>
<th>Comment</th>
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<td>Helo</td>
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<td>HELICOPTER</td>
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## Modeling Support Data and Flight Operations Density Maps

### Table D-2 (continued)
INM Aircraft Types Associated With Flight Progress Strips Aircraft Types

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<th>Aircraft Type (No Slants)</th>
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<th>Model</th>
<th>Number &amp; Type Engines</th>
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# Appendix D

## Modeling Support Data and Flight Operations Density Maps

### Table D-2 (continued)

**INM Aircraft Types Associated With Flight Progress Strips Aircraft Types**

<table>
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<tr>
<th>Aircraft Type (No Slants)</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Number &amp; Type Engines</th>
<th>Weight Class</th>
<th>INM V6.1 Type</th>
<th>FAA Substitute</th>
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**Notes:**
- All files span CY2002
- dep=departure
- arr=arrival
- tng=Touch-and-Go
- fly=flyover (supposedly not an airport operation)
- day=daytime (0700-1859)
- eve=evening (1900-2159)
- nit=nighttime (2200-0659)
- n/a=not applicable
- * density not computed as only a few flights were airport operations
- ** inspection of flight tracks revealed non-airport operations
MCCLELLAN-PALOMAR AIRPORT
FAR PART 150 STUDY UPDATE

NOISE EXPOSURE MAPS
VOLUME 2 OF 2

PREPARED FOR:
MCCLELLAN-PALOMAR AIRPORT

URS PROJECT NO. 27653003.01301

ACCEPTED BY FAA ON
APRIL 26, 2005
McCLELLAN-PALOMAR AIRPORT
FAR PART 150 STUDY UPDATE

NOISE EXPOSURE MAPS
VOLUME 2 OF 2

Prepared for

McClellan-Palomar Airport
2198 Palomar Airport Road
Carlsbad, CA 92008-4814

URS Project No.27653003.01301

Accepted by FAA on April 26, 2005

URS

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- Preliminary Forecast of Aviation Activity
- FAA Comments on Forecast of Aviation Activity
- Response to FAA Comments on Forecast of Aviation Activity

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- Palomar Airport Advisory Committee Members
- Palomar Airport Advisory Committee Presentations
- Palomar Airport Advisory Committee Meeting Minutes

## Appendix H  First Public Meeting
- Public Notification
- March 27, 2003 Meeting
- Public Comments

## Appendix I  Second Public Meeting
- Public Notification
- March 29, 2004 Meeting
- Public Comments
This appendix provides the document submitted to the FAA regarding user-defined flight profiles developed for the Mc Clellan-Palomar Airport Part 150 Noise Compatibility Study Update. The appendix also contains the URS response to the FAA comments and associated errata pages for the submitted document.
MCCLELLAN-PALOMAR AIRPORT

FAR PART 150 STUDY UPDATE
FAA PROFILE REVIEW

Prepared for

McCLELLAN-PALOMAR AIRPORT
2198 PALOMAR AIRPORT ROAD
CARLSBAD, CA 92008-4814

AND

FEDERAL AVIATION ADMINISTRATION
OFFICE OF ENVIRONMENT AND ENERGY
NOISE DIVISION (AEE-100)

URS Project No. 27653003
Revised December 3, 2003

URS

1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108-4314
619-294-9400 Fax: 619-293-7920
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## Figures

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(continued)

**Figures (continued)**

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SECTION 1 – BACKGROUND

The County of San Diego, as owner and operator of McClellan-Palomar Airport (CRQ), is preparing an update to its FAR Part 150 Noise Compatibility Program. Noise-exposure maps (NEMs) being prepared for Federal Aviation Administration (FAA) review represent a revision to the NEMs determined by FAA to comply with Part 150 on December 20, 1991. User-defined profiles described herein will be used in the revision of the NEMs.

This document addresses the aircraft and operation types listed in Table 1. The fixed-wing aircraft are transient military types, whereas the rotary-wing aircraft are primarily based helicopters.

This document follows the FAA Profile Review Checklist found in Appendix B of the Integrated Noise Model (INM) User’s Guide. Section 2 provides a statement of benefit, Section 3 shows an analysis demonstrating the benefit of the user-defined profiles (for applicable aircraft), Section 4 describes how aircraft performance data were obtained, Section 5 contains a certification of the new profile parameters, and Section 6 contains a graphical and tabular display (and/or comparison for applicable aircraft) of the profile data.
### Table 1
Required User-Defined Profiles and Aircraft Substitution

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<th>Class</th>
<th>Category</th>
<th>Aircraft Type</th>
<th>Operation Type(s)</th>
<th>Modeled Type</th>
<th>Comment Regarding Modeled Type and/or Noise Data</th>
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**Notes:**

(1) Departure, arrival, and touch-and-go.

(2) Departure and arrival only; do not conduct touch-and-go typically.

NOTAR = no tail rotor
SECTION 2 – STATEMENT OF BENEFIT

Military fixed- and rotary-wing aircraft, based at nearby air stations, practice approaches at CRQ regularly, albeit infrequently. The aircraft listed in Table 1 with the “practice approaches” operation type do not land at or takeoff from CRQ, so use of standard arrival and departure profiles does not represent accurately the way these aircraft operate at CRQ. Furthermore, because practice-approach profiles do not exist in the standard INM database, user-defined profiles had to be developed to model their operations in the INM.

Transient military C-12 aircraft (fixed-wing) land, depart, and conduct touch-and-go operations at CRQ; INM’s generic standard profiles for arrival and departure operations were used accordingly. Because touch-and-go profiles do not exist in the INM database, user-defined profiles based on information obtained from C-12 operators had to be developed to model their operations in the INM.

INM does not contain standard profiles for rotary-wing aircraft. To model their operations in the INM, user-defined profiles had to be developed. Profile information was obtained from operators of each aircraft type.
SECTION 3 – ANALYSIS DEMONSTRATING BENEFIT

This section primarily addresses the C9A and C2 aircraft because they are the only aircraft for which user-defined profiles are used in place of generic standard INM profiles for arrival and departure operations. The following graphics provide sound-exposure level (SEL) contours comparing standard arrival and departure profiles to the user-defined profiles. Graphics comparing the contours produced by the standard and user-defined profiles for helicopter operations and C12 touch-and-go operations are not provided, because there are no standard INM profiles for helicopter or C12 touch-and-go operations.

The SEL contours of Figures 1 and 2 illustrate points along the flight track where the user-defined profile generates less noise than the INM standard profile and more noise than the INM standard profile. Tables 2 and 3 compare SEL values for grid points spaced 0.5 nautical miles apart underneath the flight track, beginning at the rightmost point. In general, the figures and tables show that the user-defined profiles produce higher SEL along the approach portions and lower SEL along the departure portions.

User-defined profiles presented thus far represent the way transient military fixed-wing aircraft operate at CRQ. Therefore, the proposed benefit associated with their use (in lieu of standard INM profiles) represents more accurately the actual noise exposure resulting from their operation at CRQ. These user-defined profiles are exclusive to the CRQ Part 150 Study Update.

The user-defined profiles for the helicopters and C12 touch-and-go operations represent the way these aircraft operations are conducted at CRQ. Therefore, the proposed benefit associated with their use represents more accurately the actual noise exposure resulting from said operations at CRQ. These user-defined profiles are also exclusive to the CRQ Part 150 Study Update.

A compact disk containing INM files needed to perform the above analyses is included with this submittal.
SEL 95 dB Contours

- C9A Standard INM Arrival and Departure
- C9A User-Defined Overflight
- Grid Location

Figure 1
# Table 2

**C9A Grid Point Comparison**

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<th>USER-DEFINED PROFILE</th>
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SEL 80 dB Contours

- CVR580 Standard INM Arrival and Departure
- C2 User-Defined Overflight
- Grid Location

Figure 2
### Table 3
C2 Grid Point Comparison

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</table>
SECTION 4 – CONCURRENCE ON AIRCRAFT PERFORMANCE

The user-defined overflight profile for the C9A included in this submittal was developed using data from the Department of Defense’s (DoD) NOISEMAP computer model.

The user-defined overflight profile for the C2 included in this submittal was developed using data from CVR580 standard INM arrival and departure profiles.

The user-defined C-12 touch-and-go and user-defined helicopter profiles included in this submittal were developed from data collected from operators of these aircraft. Data collected from operators specific to CRQ is the best available and preferred information to use in the INM. Where necessary, the helicopter information was supplemented with data from the INM database for the Bell 212 default profile.

Because INM does not contain every make and type of aircraft, representative-modeled aircraft types were assigned to each specific aircraft type; the assignments are shown in Table 1. In most cases, the FAA-approved substitutions (via the FAA-imported data from its Helicopter Noise Model [HNM]) were employed. The INM Convair 580 (CVR580) was the URS Corporation (URS)-assumed substitution for the C-2 Greyhound. Although the CVR580 and Greyhound share a similar engine (output), the CVR580 is a conservative choice because it is longer and generally heavier (thus noisier) than the Greyhound. The INM/HNM H500D was the URS-assumed substitution for the Robinson R22BII, Schweizer S300C, EC120, and the future MD900 helicopters.

Reference noise-power-distance (NPD) data exist in the INM for all modeled aircraft types in Table 1 except the CH-53E Super Stallion. NPD data were extracted from the DoD’s NOISEMAP computer model for the CH-53E.
SECTION 5 – CERTIFICATION OF NEW PARAMETERS

Aircraft performance characteristics extracted from NOISEMAP and INM have been translated correctly into the INM formatted profile.

For user-defined profiles provided in terms of profile points:

• Altitude is above field elevation in feet.
• Speed is true airspeed in knots.
• Thrust setting is in units that match units of the thrust-setting parameter used in the aircraft’s associated NPD curves.
SECTION 6 – GRAPHICAL AND TABULAR COMPARISON

Figures 3 and 4 compare graphically user-defined arrival, departure, and practice approach ("overflight") profiles and generic standard INM arrival and departure profiles for the C9A and C2 aircraft, respectively, in terms of:

- Altitude versus distance.
- Speed versus distance.
- Thrust (or power) versus distance.

Figures 3 and 4 were generated in an external graphing program so that user-defined profiles and standard INM 6.1 arrival and departure profiles could be plotted together on the same graph at the same scale. Tables 4 and 5 list the profile points upon which Figures 3 and 4 are based.

The C12 (user-defined) touch-and-go profile points and user-defined profile points for helicopter operations for representative flight tracks are presented in Figures 5 through 23. Tables 6 through 16 list the profile points upon which Figures 5 through 23 are based. Comparison to standard INM profiles is not applicable, because standard INM profiles do not exist for these aircraft/operation-type combinations. The graphics of Figures 5 through 23 were generated by the INM and plotted three to a page.
Figure 3
C9A Profile Graphs

C9A Flight Profiles

- User-defined
- Standard Arrival
- Standard Departure

Altitude (Above Field Elevation, ft)

Ground Speed (kts)

Power (EPR)

Distance Along Ground Track Relative to Runway 24 Threshold (ft, positive west)
## Table 4
### C9A Profile Points

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Source: URS Corporation, 2003

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
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C12 Touch-and-Go Profile Graphs
Figure 6
C12 Circuit Profile Graphs
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C12 Profile Points

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 7
CH-53E Practice Approach ("Overflight") Profile Graphs

[Graphs showing various flight parameters over distance]
Table 7
CH-53E Profile Points

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<th>Distance (feet)</th>
<th>Altitude (feet, AFE)</th>
<th>Ground Speed (knots)</th>
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.

**Thrust setting 1 is 90% QBPA; 2 is 56%QBPA.
Figure 8
OH-58 (SA341G) Practice Approach ("Overflight") Profile Graphs
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<th>Ground Speed (knots)</th>
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 9
H-60 (S70) Practice Approach ("Overflight") Profile Graphs
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**H-60 (S70) Profile Points**

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.*
Figure 10
R22BII, S300C, MD500D, and MD900 (H500D) Departure Profile Graphs

Distance (1000 ft)

Airspeed (kt)

Distance (1000 ft)

Altitude (1000 ft)

Corrected Net Thrust per Engine
Figure 11
R22BII, S300C, MD500D, and MD900 (H500D) Arrival Profile Graphs
Figure 12
R22BII, S300C, MD500D, and MD900 (H500D) Touch-and-Go Profile Graphs
Figure 13
R22BII, S300C, MD500D, and MD900 (H500D) Circuit Profile Graphs
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
### Table 11
MD500D (H500D) Profile Points

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 14
Bell 206BIII (B206L) Departure Profile Graphs
Figure 15
Bell 206BIII (B206L) Arrival Profile Graphs
Figure 16
Bell 206BIII (B206L) Touch-and-Go Profile Graphs
Figure 17
Bell 206BIII (B206L) Circuit Profile Graphs

[Graphs showing changes in altitude, airspeed, corrected net thrust per engine (other), and distance over time]
Table 13
Bell 206BIII (B206L) Profile Points

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
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EC120 (SA365N) Departure Profile Graphs
Figure 19
EC120 (SA365N) Arrival Profile Graphs
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 20
Bell 222 (B222) Departure Profile Graphs
Figure 21
Bell 222 (B222) Arrival Profile Graphs

Distance (1000 ft)

Airspeed (kt)

Distance (1000 ft)

Altitude (1000 ft)

Corrected Net Thrust per Engine (lbf)

Distance (1000 ft)
## Table 15
Bell 222 (B222) Profile Points

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 22
AS350 (SA350D) Departure Profile Graphs
Figure 23
AS350 (SA350D) Arrival Profile Graphs

Graph 1: Arrival Airspeed vs. Distance
- Y-axis: Airspeed (kt)
- X-axis: Distance (1000 ft)
- Graph shows the relationship between airspeed and distance.

Graph 2: Altitude vs. Distance
- Y-axis: Altitude (1000 ft)
- X-axis: Distance (1000 ft)
- Graph shows the decrease in altitude as distance increases.

Graph 3: Corrected Net Thrust per Engine vs. Distance
- Y-axis: Corrected Net Thrust per Engine (lbf)
- X-axis: Distance (1000 ft)
- Graph shows the corrected net thrust per engine against distance.
Table 16
AS350 (SA350D) Profile Points

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</table>

Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Mr. Jeffrey L. Fuller  
URS Corporation  
1615 Murray Canyon Road  
San Diego, CA 92108

Dear Mr. Fuller:

The Office of Environment and Energy has reviewed the profiles submitted for our review for use in the 14 CFR Part 150 Update for McClellan-Palomar Airport (CRQ). This submission requests review of profiles for helicopter and some military aircraft. Helicopters aircraft do not have standard profiles and most of this submission serves to document that inputs are consistent and that an appropriate amount of survey work was completed.

Our office approves the use of the modified profiles for use in the 14 CFR Part 150 Update for McClellan-Palomar. This approval is based on assurance that the comments received by URS by email on January 6 concerning the C9A, C2 and C12 profiles have been addressed. Those comments are attached for reference. Also note the inconsistency between Figure 2 and Table 3 for the C2 User-Defined profile. It is also recommended that the Part 150 expand on Section 4 of this submission to explain the data collection for helicopters used to justify the profiles contained in this submittal.

Please understand that this approval for use of the modified departure profiles is limited to this particular 14 CFR Part 150 Update for CRQ. Any additional projects or non-standard INM input for CRQ will require separate approval as will use of these profiles for another site.

Sincerely,

John Gulding  
Noise Division  
Office of Environment and Energy

Enclosure
URS Part 150 Study Profile Review:

C9A Overflight Profile:
- The initial climb segment of the user-defined C9A Overflight profile does not match the aircraft performance demonstrated by the NOISEMAP departure profile from a force-balance perspective. To maintain consistency with NOISEMAP recommend the following. The user-defined initial climb segment utilizes the same amount of thrust as the initial climb segment of the NOISEMAP profile yet it has a lower climb rate and lower acceleration. The distance value for the acceleration segment endpoint should be reduced by 4300 ft. This will also bring the user-defined segment’s climb rate more in line with that of the NOISEMAP segment. The distance values for all subsequent points in the profile should also be reduced by 4300 ft so that they continue to match the NOISEMAP profile.
- The first three points in the user-defined Overflight profile should use the Approach operational mode rather than the Departure operational mode. These three points represent the Approach part of the profile and should have their noise levels calculated using the Approach NPD curves rather than the Departure NPD curves.
- It is not stated why the profile begins its Approach at an altitude of 2310 ft rather than the INM standard 6000 ft and ends its Departure at an altitude of 2818 ft rather than the INM standard 10,000 ft. Depending on the circumstances of the study, noise from aircraft using this profile may be incorrectly unaccounted for because the aircraft appear and disappear from the model at such low altitudes.
- The thrust setting of the first profile point of the user-defined profile should be interpolated from the thrust settings of the two closest standard Approach profile points in the same manner that the speed and altitude values were obtained for that point. The current thrust setting for that point seems too low.

C2 Overflight Profile:
- The operational mode for point number 4 of the user-defined Overflight profile should be changed from Departure to Approach, and the operational mode for step number 5 should be changed from Approach to Departure. This change will make the thrust values, speed changes, and altitude changes for those points consistent with the operational mode even though it will not change the resulting noise contours because the Approach and Departure NPD curves are identical for this aircraft.
- The altitude, speed and thrust values for many of the points in the user-defined Overflight profile have been taken directly from the standard Approach and Departure procedures, but for some reason the thrust values have been rounded off while the altitude and speed values have not. For those points taken directly form the standard profiles it is better to use the exact thrust values to maintain consistency with the standard profiles.
- As with the C9A profile above, the initial approach altitude and the final departure altitude are lower than those normally used in standard INM profiles.

C12 Circuit Profile:
- The operational mode for point number 1 of the user-defined Circuit profile should be changed from Approach to Departure, and the operational modes for points 5, 6 and 7 should be changed from Departure to Approach. It is important to maintain consistency between the nature of the profile step, the thrust value of the profile step, and the operational mode so that the INM references the correct NPD curves when calculating noise.
- It is usually not appropriate for an aircraft to start its takeoff roll at 111 knots as dictated by point number 1 of the user-defined Circuit profile. The speed value for this point should be changed to 0 knots.
- A Circuit profile in the INM is usually defined as a combined takeoff and landing. There is no landing roll defined in the user-defined Circuit profile, and thrust increases when the airplane first touches down. Some explanation should be made as to why the Approach section of the Circuit profile has been defined in this manner.

C12 TGO Profile:
- The operational mode for point number 1, 2, 8, and 9 of the user-defined Touch-and-Go profile should be changed from Departure to Approach. The operational mode for point number 5 should be changed from Approach to Departure.
Response to FAA Comments on

McClellan-Palomar Airport FAR Part 150 Study Update

FAA Profile Review, Revised December 3, 2003

(Original FAA comments recreated verbatim)

1) Comment, Cover letter, 2nd paragraph:
“Also note the inconsistency between Figure 2 and Table 3 for the C2 User-Defined profile.”

Response: *C2 user-defined profile has been modified and the figure and table are now consistent. Please see Errata, pages 4 and 5.*

2) Comment, Page 1, C9A Overflight Profile:
   a. The initial climb segment of the user-defined C9A Overflight profile does not match the aircraft performance demonstrated by the NOISEMAP departure profile from a force-balance perspective. To maintain consistency with NOISEMAP recommend the following. The user-defined initial climb segment utilizes the same amount of thrust as the initial climb segment of the NOISEMAP profile yet it has a lower climb rate and lower acceleration. The distance value for the acceleration segment endpoint should be reduced by 4300 ft. This will also bring the user-defined segment’s climb rate more in line with that of the NOISEMAP segment. The distance values for all subsequent points in the profile should also be reduced by 4300 ft so that they continue to match the NOISEMAP profile.

   b. The first three points in the user-defined Overflight profile should use the Approach operational mode rather than the Departure operational mode. These three points represent the Approach part of the profile and should have their noise levels calculated using the Approach NPD curves rather than the Departure NPD curves.

   c. It is not stated why the profile begins its Approach at an altitude of 2310 ft rather than the INM standard 6000 ft and ends its Departure at an altitude of 2818 ft rather than the INM standard 10,000 ft. Depending on the circumstances of the study, noise from aircraft using this profile may be incorrectly unaccounted for because the aircraft appear and disappear from the model at such low altitudes.

   d. The thrust setting of the first profile point of the user-defined profile should be interpolated from the thrust settings of the two closest standard Approach profile points in the same manner that the speed and altitude
values were obtained for that point. The current thrust setting for that
to point seems too low.

Response: Concur on all points. The C9A user-defined flight profile has been
amended and is shown in the Errata section.

3) Comment, page 1, C2 Overflight Profile
   a. The operational mode for point number 4 of the user-defined Overflight
      profile should be changed from Departure to Approach, and the
      operational mode for step number 5 should be changed from Approach to
      Departure. This change will make the thrust values, speed changes, and
      altitude changes for those points consistent with the operational mode
      even though it will not change the resulting noise contours because the
      Approach and Departure NPD curves are identical for this aircraft.
   
   b. The altitude, speed and thrust values for many of the points in the user-
      defined Overflight profile have been taken directly from the standard
      Approach and Departure procedures, but for some reason the thrust
      values have been rounded off while the altitude and speed values have
      not. For those points taken directly from the standard profiles it is better to
      use the exact thrust values to maintain consistency with the standard
      profiles.
   
   c. As with the C9A profile above, the initial approach altitude and the final
      departure altitude are lower than those normally used in standard INM
      profiles.

Response:
   a. Concur
   b. Thrust values from INM's standard approach and departure procedures
      were not rounded in Table 5. The data shown is consistent with what INM
      accepts.
   
   c. Concur. The C2 user-defined flight profile has been amended and is
      shown in the Errata section.

4) Comment, page 2, C12 Circuit Profile
   a. The operational mode for point number 1 of the user-defined Circuit profile
      should be changed from Approach to Departure, and the operational
      modes for points 5, 6 and 7 should be changed from Departure to
      Approach. It is important to maintain consistency between the nature of
      the profile step, the thrust value of the profile step, and the operational
      mode so that the INM references the correct NPD curves when calculating
      noise.
b. It is usually not appropriate for an aircraft to start its takeoff roll at 111 knots as dictated by point number 1 of the user-defined Circuit profile. The speed value for this point should be changed to 0 knots.

c. A Circuit profile in the INM is usually defined as a combined takeoff and landing. There is no landing roll defined in the user-defined Circuit profile, and thrust increases when the airplane first touches down. Some explanation should be made as to why the Approach section of the Circuit profile has been defined in this manner.

Response: Concur on all points. A landing roll has been added. The C12 user-defined flight profile has been amended and is shown in the Errata section.

5) Comment, page 2, C12 TGO Profile: The operational mode for point number 1, 2, 8, and 9 of the user-defined Touch-and-Go profile should be changed from Departure to Approach. The operational mode for point number 5 should be changed from Approach to Departure.

Response: Concur. The C12 user-defined flight profile has been amended and is shown in the Errata section.
Errata for McClellan-Palomar Airport FAR Part 150 Study Update

FAA Profile Review, Revised December 3, 2003

1) Table 1, CH-53E, Comment column: Replace “noise map” with “Noisemap”.
2) Table 1, note 2: Replace “…do not conduct touch-and-go.” with “does not typically conduct touch-and-go.”
3) Page 4, 1st paragraph, 3rd line: Replace “…sound-exposure level…” with “…Sound Exposure Level…”
4) Figure 1: Update with corrected user-defined profile. See attached.
5) Table 2: Update with corrected user-defined profile (and difference) data. See attached.
6) Figure 2: Update with corrected user-defined profile. See attached.
7) Table 3: Update with corrected user-defined profile (and difference) data. See attached.
8) Page 9, paragraph 3, 2nd sentence: Insert the following text:
“For the C-12, H-60 and OH-58, the 140th Aviation Brigade from Los Alamitos Army Airfield, Los Alamitos, CA were queried. For the civilian helicopters, two operators were contacted: Civic Helicopters and Mercy Air. For the CH-53E, the Community Plans and Liaison office representing Marine Corps Air Station Miramar was contacted. These contacts were provided a map(s) of the CRQ vicinity and were requested to sketch their typical flight paths and provide altitude, speed and power setting at points along the flight path where said parameters change.”
9) Figure 3: Update with corrected user-defined profile data. See attached.
10) Table 4: Update with corrected user-defined profile data. See attached.
11) Figure 4: Update with corrected user-defined profile data. See attached.
12) Table 5: Update with corrected user-defined profile data. See attached.
13) Figure 6: Update with corrected user-defined profile data. See attached.
14) Table 6: Update with corrected user-defined profile data. See attached.
### Table 2
C9A Grid Point Comparison

<table>
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<th>GRID POINT</th>
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<th>Y_COORD</th>
<th>STANDARD PROFILE</th>
<th>USER-DEFINED PROFILE</th>
<th>DIFFERENCE (Standard minus User-Defined, dBA)</th>
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Title:
Figure 2 – 80 dBA SEL Contours for C-2 Standard and User-Defined Flight Profiles

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   a. Legend: C2 User-defined Overflight (Practice Approach) Flight Profile
   b. Solid Line
2. SEL95_std.SHP
   a. Legend: CVR580 Standard INM Arrival and Departure Flight Profiles
   b. Dashed Line
3. Grid-Points.shp
   a. Legend: Grid Location
   b. Label per ID
4. Airport-Runways.shp
   a. Legend: Runway 06/24
5. Base map = aerial, airport property, streets, north arrow, etc.
6. Scale: Fit all 23 grid points plus a small buffer distance; use same scale as Figure 1
7. Put a dimension alongside two of the grid points showing that each grid point is spaced 0.5 nautical mile apart.
# Table 3
## C2 Grid Point Comparison

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<th>USER-DEFINED PROFILE</th>
<th>DIFFERENCE (Standard minus User-Defined, dBA)</th>
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</table>
Figure 3
C9A Profile Graphs

C9A Flight Profiles

- User-defined
- Standard Arrival
- Standard Departure

Altitude (Above Field Elevation, ft)

Ground Speed (kts)

Distance Along Ground Track Relative to Runway 24 Threshold (ft, positive west)

Power (EPR)
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 4
C2 (CVR580) Profile Graphs

C-2 (CVR580) Flight Profiles

- Altitude (Above Field Elevation, ft)
- Ground Speed (kts)
- Power (% RPM)

Distance Along Ground Track Relative to Runway 24 Threshold (ft, positive west)

User-defined
Standard Arrival
Standard Departure
# Table 5

## C2 (CVR580) Profile Points

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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
Figure 6
C12 Circuit Profile Graphs

Graph 1: Airspeed (kt) vs. Distance (1000 ft)

Graph 2: Altitude (1000 ft) vs. Distance (1000 ft)

Graph 3: Corrected Net Thrust (percent) vs. Distance (1000 ft)
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Source: URS Corporation, 2003

*Stage length for departures; arrival group (glide slope), if applicable.
This appendix provides the document submitted to the FAA regarding the aviation activity forecast developed for the McClellan-Palomar Airport Part 150 Noise Compatibility Study Update. The appendix also contains the URS response to the FAA comments and associated errata pages for the submitted document.
Charters/Hangars/Tiedowns; Commercial Airlines; FBO'S; and Flight Schools Contacted
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<th>Type</th>
<th>Contact Person</th>
<th>Address</th>
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| Jet Source Charter, Inc.| FBO          | Shaun Monegan, Frank Milan | 2036 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 804-1500  
|                         |              |                    |                                | (888) 700-4538         |
| Magellan Aviation       | FBO; mostly based a/c | Martha Greenlaw | 2006 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 438-7603       |
| Schubach Aviation       | charter       | Henry Schubach    | 2006 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 929-0307  
|                         |              |                    |                                | (800) 214-8215        |
| Western Flight          | FBO          | Ginna Reyes       | 2210 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 438-6800  
|                         |              |                    |                                | (800) 523-4038        |
| Elite Jet               | fractional   | Scott Walker      | 5962 La Place Ct, Carlsbad, CA 92008 | (760) 438-7245       |
| America West Express    | Airline      | Treena Smith      | 2198 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 438-3517       |
| United Express (Skywest)| Airline      | Donald Graham     | 2198 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 438-2329       |
| Flying Samaritan Group  | charter       | Ken Zirda         | 5208 Sand Dollar Ct, San Diego, CA 92130 | (858) 350-9666       |
| Exclusive Charter Services | charter | Lason Brown      | 3753 John Montgomery Dr, San Diego, CA 92123 | (858) 874-6532       |
| Federal Aviation Adminstration | FAA | Sandy Detherage (male) | 2200 Palomar Airport Road, Carlsbad, CA 92008 | (760) 438-4969  
|                         |              |                    |                                | (619) 299-0677 (LF)  |
| Civic Helicopters       | School, charter | Chim Tu           | 2192-H Palomar Airport Rd, Carlsbad, CA 92008 | (760) 438-8424       |
| Grey Eagle Aviation     | school       | Mel Holmes        | 2186 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 804-8670       |
| Pinnacle Aviation Academy | school     | George McJimsey   | 2016 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 929-1009       |
| San Diego Flight Services | FAA         | Rose Sardisco     | 4302 Ponderosa Avenue, San Diego, CA 92123 | (858) 277-0503       |
| Eastridge Group         | not flight-related | Misty Pawlowski | 5650 El Camino Real, Suite 101, Carlsbad, CA 92008 | (760) 438-4202       |
| Aviation                | unknown      | Jack Williams     | 6714 Bambool Place, Carlsbad, CA 92009 | (760) 603-6323       |
| South Seas              | private      | Wayne Dauber      | P.O. Box 5035, Rancho Santa Fe, CA 92067 | (760) 749-6085  
|                         |              |                    |                                | (760) 809-6698        |
| Aviation Resource Group | private      | Greg Hein         | 2210 Palomar Airport Rd, Valley Center, CA 92082 | (760) 751-2194       |
| Palomar Airport Fuels   | also "Palomar Airport Center"; fuel seller | Nelson Carrick | 2006 Palomar Airport Rd, Carlsbad, CA 92008 | (760) 803-8877       |
| Orion Aviation          | school       | Theresa Terrel    | 2138-B Palomar Airport Road, Carlsbad, CA 92008 | (760) 476-9028       |
REPORT

McCLELLAN-PALOMAR AIRPORT
FAR PART 150 STUDY UPDATE

PRELIMINARY FORECAST OF
AVIATION ACTIVITY

PREPARED FOR
McCLELLAN-PALOMAR AIRPORT

URS PROJECT No. 27653003-01301

REVISED NOVEMBER 5, 2003
REPORT

McCLELLAN-PALOMAR AIRPORT
FAR PART 150 STUDY UPDATE

PRELIMINARY FORECAST OF
AVIATION ACTIVITY

Prepared for
McClellan-Palomar Airport
2198 Palomar Airport Road
Carlsbad, CA 92008-4814

URS Project No. 27653003.01301

Revised November 5, 2003

URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108-4314
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1.1 INTRODUCTION

This section presents forecasts of aviation demand at McClellan-Palomar Airport (CRQ) through the year 2013. These forecasts provide the basis for estimating future aircraft operational levels and their associated noise impacts to the land uses surrounding the airport. The forecasts presented in this section were prepared based on historical annual activity through December.

It should be noted that aviation forecasting consists of educated estimates regarding future activity levels. Although past trends and current industry events provide clues regarding future levels of activity, the actual level of aircraft operations that will occur at CRQ are unknown. Thus, the forecasts presented on the following pages should be reviewed with this fact in mind.

1.2 OVERVIEW OF ECONOMIC AND WORLD EVENTS AND INDUSTRY TRENDS

The challenges currently facing the aviation industry are unprecedented, and most experts agree that the industry is in a crisis. Several major carriers are currently in, or very close to, bankruptcy. Passenger enplanements are significantly lower than recent years in every category of traffic, and prospects for the near-term future are uncertain. Reasons for the dismal state of affairs include the 2001 economic recession, September 11 terrorist attacks, war in Iraq, and a number of other issues. All of these factors could affect future passenger demand and aircraft activity levels at CRQ. A brief summary of these issues is presented in the following paragraphs.

1.2.1 Economic and World Events

1.2.1.1 Economic Recession

The U.S. entered its tenth economic recession since World War II in the first quarter of 2001; the recession lasted through the third quarter of the same year. Economic growth since the recession has been erratic, with growth of Gross Domestic Product (GDP) ranging from a high of 5 percent in the first quarter of 2002 to a low of 1.3 percent in the second quarter of 2002. For the calendar year 2002, GDP growth was 2.4 percent, compared to 0.3 percent in 2001 and 3.8 percent in 2000. The present state of the U.S. economy is uncertain. With reported upturns in certain key economic sectors, the short-term outlook is clouded by national and worldwide political turmoil.

1.2.1.2 September 11 Terrorist Attacks

The aftermath of the September 11, 2001, terrorist attacks with respect to the aviation industry has decreased passenger demand and increased costs to the airlines significantly. Aircraft activity levels have not yet rebounded to the levels experienced prior to the attacks, and the latest Federal Aviation Administration (FAA) projections indicate that aircraft activity levels will not return to pre-September 11 levels until 2004/2005. Security-related costs have imposed significant new costs on airlines, including mandates for the installation of new cockpit doors. These costs, along with higher labor and fuel costs, have resulted in severe financial losses for most major U.S. airlines. Because of the lower passenger levels and higher costs, many airlines have reduced their schedules and in many instances substituted service by their code share regional partners for mainline service.
1.2.1.3 Middle East Hostilities

As of September 2003, U.S. military involvement in Iraq is continuing and has had a broad effect across the aviation industry. Nearly all airlines have experienced decreases in passengers and have cut capacity in response. The Air Transport Association (ATA) described the impact of the war as follows in a March 26, 2003, press release:

“In the week preceding the war, traffic moderated slightly. Following the March 16 Azores Summit (between U.S. President Bush and British Prime Minister Tony Blair), however, demand dropped at a pace not seen since the aftermath of the September 11 attacks. Traffic for the week ended March 23 fell 10 percent, led by a 25 percent drop in the Atlantic, a 13 percent drop in the Pacific, and an 8 percent drop in Latin markets. Domestic traffic also fell 7 percent.

Advance bookings for the next 60 to 90 days suggest no relief in sight. Domestic bookings are down more than 20 percent, Atlantic down more than 40 percent, Latin off more than 15 percent, and Pacific more than 30 percent. Airlines have reported that on some days cancellations are exceeding bookings.”

Obviously, the Middle East military efforts will have an effect on passenger enplanements for calendar year 2003. The duration and intensity of the military involvement will determine the magnitude of effect. However, data for the period following the 1991 Gulf War suggests that passenger levels may rebound to pre-war levels within six months of the end of hostilities.

1.2.2 Industry Trends

Because of and in response to recent world and economic events, the aviation industry is undergoing numerous changes. These changes include the continued growth of low-cost carriers, expanded use of regional jets, continued use of the hub and spoke system, and expansion of security procedures. These issues are explored briefly in the following paragraphs, and their ability to positively or adversely affect future activity levels at CRQ is discussed.

1.2.2.1 Growth of Low-Cost Carriers

Low-cost airlines such as Southwest Airlines, JetBlue Airlines, Air Trans, and American Trans Air have continued to gain market share in recent years as business travelers seek less-expensive alternatives. Low-cost carrier service is available at nearby markets such as Los Angeles, San Diego, Long Beach, and Burbank. The proportion of travelers in the McClellan-Palomar market using low-cost air carriers at these surrounding markets instead of service at CRQ is unknown. However, based on data at similar markets, there is a high potential for significant diversion of air passengers in the McClellan-Palomar market.

This factor would tend to indicate slower growth in future years as low-cost carriers in surrounding markets capture a greater share of the market. However, this may be mitigated somewhat because traditional mainline carriers seek to reduce airfares to stimulate passenger demand.
1.2.2.2 Introduction of Regional Jets

Regional jets are defined as jet aircraft accommodating 35 to 100 passengers. These aircraft have been acquired by commuter airlines to replace their turboprop aircraft, typically providing connecting service to mainline carriers at hub airports. The significance of these aircraft to a market such as McClellan-Palomar is that these aircraft provide a superior level of customer service and convenience in comparison to the turboprop aircraft that they replace. Passengers typically rank regional jet aircraft much higher in terms of comfort because of their low noise and vibration levels in the cabin, as well as the fact that many of these aircraft are boarded via loading bridges, whereas the turboprop aircraft they are replacing are boarded via the ramp. Thus, the passenger is provided with weather protection while boarding the aircraft.

Because of this higher comfort and convenience level, airlines are finding regional jet aircraft are stimulating traffic in markets previously only served by turboprop aircraft. Certain passengers prefer to drive to the connecting hub airport rather than use turboprop aircraft.

1.2.2.3 Continued Use of Hub and Spoke Networks

Nearly all major airlines in the United States use a hub and spoke route network whereby aircraft from various destinations (the spokes) are flown to a single airport (the hub) to transfer passengers with common destinations to an outbound aircraft. Aircraft arrive and depart the hub airport at a similar time to enable passengers to transfer from one aircraft to another. This type of route network enables passengers from a market such as McClellan-Palomar to reach a greater number of destinations at a greater frequency than would be possible without such a network.

Although airlines are currently experiencing severe financial distress, none have indicated, to date, that the prevailing hub and spoke network will be dismantled. Some airlines, such as American, have instituted hub reforms seeking to improve the efficiency of their hubs by spreading out demand, but the basic structure of the hub and spoke network remains unchanged.

This means that future air service patterns at CRQ are likely to continue to consist of commuter airlines providing connections to nearby major hubs such as Phoenix and Los Angeles. Service to independent locations is unlikely to generate sufficient passengers to be viable economically. This factor indicates that there are few opportunities for additional passenger service in the McClellan-Palomar market.

1.2.2.4 Increased Security Procedures

In the aftermath of September 11, the FAA implemented stricter security procedures, thereby increasing the amount of time required for passenger screening. Consequently, passengers needed to allow additional time before scheduled departure time for passing through security. This additional time was a significant factor for short trips because travel by car became an even more viable alternative.

In addition to the time factor, certain parties complained of the “hassle factor” associated with commercial air transportation, especially when secondary gate screening was being conducted. However, many of these complaints have since subsided, and security delays no longer appear to be a significant issue with regard to decreasing travel demand. Although aviation security has been and
continues to be a major issue in the aviation industry, passenger screening does not appear to have a
negative effect on passenger levels as in the months following the September 11 terrorist attacks.

1.2.2.5 Changing Role of the Regional Commuter Market

Beyond the effects of low-cost carriers, the regional commuter market is also experiencing dynamic
changes to more adequately serve its shifting price-sensitive customer base and to better use its current
fleet of aircraft. Such changes and their effects will most likely be more pronounced at CRQ. One current
example is the recent reallocation of aircraft by a commuter airline serving CRQ to another larger airport
within an expanding market. Changes in the economy, increases in fares, and lack of market leverage
present increased pressure on each commuter airline serving CRQ to maintain adequate and viable load
factors and profit margins. That said, CRQ may experience unilateral decisions by commuters to limit
flight and city-pair offerings, or in the most extreme cases, discontinue service altogether.

1.3 HISTORICAL AVIATION ACTIVITY

A key factor in attempting to predict future trends affecting aircraft operations at CRQ is understanding
and analyzing current and past trends at the airport. Therefore, this section examines and documents
those trends and provides the basis for the forecasts presented in the following section. Historical data
were obtained from airport management records and air traffic control records from the FAA. An
assessment of aircraft operations is presented first, followed by an assessment of aircraft fleet mix.

1.3.1 Historical Annual Aircraft Operations

The FAA defines an aircraft operation as either an arrival or a departure. Under this definition, an
aircraft “touch and go” is considered two operations because the aircraft conducts a landing and
takeoff during the maneuver. This section includes a distribution of the historical operations.

Historical aircraft operations at CRQ have been recorded in the FAA Terminal Area Forecast (TAF),
and FAA Air Traffic Activity Data System (ATADS). Both of these data sources reflect the same
historical trend for aircraft operations at CRQ. Historical data documented by the FAA TAF
were used for this review for 1980 through 1989, and the FAA ATADS were used for 1990 through
2002. When logging this data, the TAF and the ATADS separate the annual operations into the
following six categories:

- Itinerant Air Carrier (none since 1999)
- Itinerant Commuter/Air Taxi
- Itinerant General Aviation
- Itinerant Military
- Local General Aviation
- Local Military

Table 1.1 and Figure 1.1 present historical total aircraft operations for CRQ from 1980 through 2002.
Aircraft operations at CRQ have shown a slight negative trend since 1980, decreasing approximately
14 percent since 1980 and almost 30 percent since 1999. Table 1.2 presents annual local and itinerant
aircraft operations, by operational categories, for 1980 through 2002.
### Table 1.1
HISTORICAL TOTAL AIRCRAFT OPERATIONS

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<th>Year</th>
<th>Number of Operations</th>
<th>Percent Change</th>
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<td>237,390</td>
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<td>1981</td>
<td>211,829</td>
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<tr>
<td>1982</td>
<td>175,740</td>
<td>-17%</td>
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<tr>
<td>1983</td>
<td>195,299</td>
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</tr>
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<td>1984</td>
<td>195,237</td>
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<td>183,513</td>
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<td>1990</td>
<td>255,369</td>
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</tr>
<tr>
<td>1991</td>
<td>220,621</td>
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<tr>
<td>1992</td>
<td>225,041</td>
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<td>1995</td>
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<tr>
<td>1996</td>
<td>227,764</td>
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<td>1997</td>
<td>245,092</td>
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<td>255,096</td>
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<tr>
<td>2001</td>
<td>221,898</td>
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<tr>
<td>2002</td>
<td>204,155</td>
<td>-8%</td>
</tr>
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</table>

**Sources**
CRQ FAA ATADS, for 1990 to 2001.
URS/CRQ for 2002.

**Note**
TAF data is presented in FAA fiscal years (October through September). Other records are presented in calendar years.
Figure 1.1
HISTORICAL AIRCRAFT OPERATIONS

Operational Counts

Year

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
1.3.2 Air Carrier Operations

For traffic-count purposes, an air carrier aircraft is defined as having a maximum passenger seating capacity of more than 60. Since 2000, all scheduled passenger service at CRQ has been provided by commuter aircraft of fewer than 60 seats.

1.3.3 Commuter Operations

Commuter operations at CRQ consist of service by America West to Phoenix-Sky Harbor International Airport, and United Express to Los Angeles International Airport. Commuter operations have increased approximately 148 percent since 1980, an average annual increase of almost 4.2 percent. The airport experienced its highest level of commuter operations in 2000, with 16,545 commuter operations. Historical commuter operations are presented in Table 1.2 and Figure 1.2.

1.3.4 General Aviation Operations

General aviation includes all segments of the aviation industry except for commercial air service and military operations. Typical general aviation activities include pilot training, corporate, and pleasure flying. Operations at the airport are conducted by single- and multi-engine piston aircraft, turboprop and turbojet aircraft, and helicopters.

General aviation operations are recorded as local or itinerant. Local operations, primarily arrivals or departures performed by aircraft remaining in the airport traffic pattern or local training area, are most often associated with training activity and flight instruction. Itinerant operations are arrivals or departures other than local operations performed by either based or transient aircraft.

Table 1.2 and Figure 1.3 present historical general aviation operations separated into itinerant and local operations. On average, since 1980 itinerant general aviation operations have accounted for 59 percent of general aviation activity at CRQ. General aviation activity generally increased from the early 1980s through 1999. Since then, operations have experienced a downward trend beginning in 2000. The reduction of recent general aviation activity at the airport is a direct reflection of the economic downturn. Based on historical trends, local and itinerant general aviation activity will most likely rebound to previous levels mirroring increased economic activity, leading to increased business-related and personal pleasure flight activity.

1.3.5 Military Operations

Military operations at CRQ have fluctuated since 1980, with a high in 1999 of 12,617 operations and a low in 1997 of 1,364 operations. According to air traffic control personnel, military operations at CRQ consist primarily of aircraft performing training operations. Military aircraft using CRQ consist primarily of transport aircraft, such as the C-2, C-9, and C-12, and rotary-wing aircraft, such as the OH-58, CH-53, and SH-60. Historical military operations are presented in Table 1.2.
### Table 1.2
**HISTORICAL AIRCRAFT OPERATIONS BY OPERATIONAL CATEGORY**

<table>
<thead>
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<th>Year</th>
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<tr>
<td>2000</td>
<td>0</td>
<td>16,545</td>
<td>152,184</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>15,176</td>
<td>131,284</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>13,140</td>
<td>126,277</td>
</tr>
</tbody>
</table>

**Sources:**
McClellan-Palomar FAA ATADS, for years 1990 to 2001.

**Notes:**
TAF data is presented in FAA fiscal years. Other records are presented in calendar years.
GA = General Aviation
*CRQ has never had commercial air carrier service (aircraft of 60 seats or more). According to the FAA tower staff, it is likely that nearly all of previous years' counts of air carrier operations were mistakenly classified as air carrier ops and should have been classified as air taxi operations.*
Figure 1.2
HISTORICAL COMMERCIAL OPERATIONS
Figure 1.3
HISTORICAL GENERAL AVIATION OPERATIONS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
1.3.6 Aviation Forecasts

This section presents forecasts of aircraft operations and aircraft operational fleet mix. Forecasts from other studies and independent sources are also presented to provide a point of reference from which to compare the updated forecasts.

1.3.7 Forecasting Methodologies

Methodologies commonly used for forecasting include trend analysis and market share analysis. All such methodologies are based on the premise that historical trends or relationships can be used to predict future activity levels. A description of each methodology is provided as follows:

- **Trend Analysis.** This type of analysis is one of the simplest forecasting techniques. The method fits growth lines to historical data and extends them into the future. This methodology assumes that the same factors affecting aviation activity in the past will continue to do so in the future.

- **Market Share Analysis.** This analytical tool involves review of historical activity levels at the airport as a percentage share of a larger market. For instance, the number of aircraft operations at the airport is compared to the total number of aircraft operations in the region, state, or nation. This relative share factor is then held as a constant and increased in direct proportion to the projected growth within the region, state, or nation to determine likely future activity levels at the airport.

These two analytical techniques assume that previous relationships will continue to exist in the future. Consequently, these methods do not consider the effects of more-aggressive marketing, increased service levels, or other changes occurring independently of past relationships. To supplement this type of analysis, the complimentary approach of forecasting involves professional judgment. During this phase, decisions about the validity of forecasts resulting from the analytical analyses are made. Intangible factors are then considered when developing a preferred forecast.

1.3.8 Aircraft Operations

This section addresses forecasts of aircraft operations. These forecasts provide the basis for estimating future aircraft operational levels and their associated noise impacts to the land uses surrounding the airport.

1.3.8.1 Previous Forecasts of Aircraft Operations

Independent forecasts of aircraft operations obtained and reviewed are described below:

- **McClellan-Palomar Airport Master Plan (1997).** The forecast of aviation activity as published for the 1997 McClellan-Palomar Airport Master Plan developed by Coffman Associates, Inc., was reviewed and analyzed. The forecast presented projections of aircraft operational levels, passenger enplanements, and based aircraft counts for the forecast years 2000, 2005, 2010, and 2015. The aircraft operational forecast for commercial, air taxi, general aviation, and military operations is shown in Table 1.3.
Table 1.3
1997 MASTER PLAN FORECAST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Itinerant Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>6,534</td>
<td>8,182</td>
<td>9,650</td>
<td>10,484</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>12,683</td>
<td>14,546</td>
<td>15,745</td>
<td>15,726</td>
</tr>
<tr>
<td>General Aviation</td>
<td>150,800</td>
<td>159,800</td>
<td>170,400</td>
<td>182,000</td>
</tr>
<tr>
<td>Military</td>
<td>2,800</td>
<td>2,800</td>
<td>2,800</td>
<td>2,800</td>
</tr>
<tr>
<td><strong>Annual Local Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Aviation</td>
<td>74,200</td>
<td>75,200</td>
<td>76,600</td>
<td>78,000</td>
</tr>
<tr>
<td>Military</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Annual Operations</strong></td>
<td>247,117</td>
<td>260,628</td>
<td>275,295</td>
<td>289,110</td>
</tr>
</tbody>
</table>

**SOURCE**
1997 McClellan-Palomar Airport Master Plan, Coffman Associates, Inc.

Over the 15-year forecast period of 2000 through 2015, the average annual compound growth rate of all aircraft operations was reported to be 1.05 percent. Projected average annualized compound growth rates for commercial operations of aircraft having 60 seats or more was 3.20 percent and air taxi operations was reported to be 1.44 percent for the same period. Local general aviation operations were projected to increase at a rate of approximately 1 percent, whereas itinerant general aviation operations were projected to increase at a rate of approximately 1.3 percent annually. In keeping with standard practices of forecasting military operations at civilian airports, local and itinerant military operations were held constant throughout the entire forecast period.

Based on this review, it is apparent that the Master Plan’s forecast of commercial operations does not adequately reflect current market conditions, the adverse effects of September 11, or other factors. Likewise, variations in growth characteristics of local and itinerant general aviation and military aircraft operations, as well as the evolving air taxi market, would suggest that a revised and updated forecast of aircraft operations is currently warranted. That said, overall annualized operations levels for all aircraft appear to fall within 5 to 13 percent of current projects as listed in the TAF for the airport.

- **FAA Terminal Area Forecast.** The TAF projects aircraft operations at CRQ to increase to approximately 297,000 in 2020 from their current level of approximately 204,000 operations in 2002. The average annual growth rate associated with this forecast is approximately 2.1 percent.

- **FAA Aerospace Forecasts, FY 2003-2014 (March 2003):** Using the FAA’s Aerospace Forecast for Fiscal Years (FY) 2003-2014, average annual compound growth rate projections of commuter/air taxi operations and general aviation operations were developed for the forecast period (2002-2013). These FAA growth rates were applied to the actual respective activity levels for 2002 and have grown outward to 2013.
1.3.8.2 Updated Forecast of Commercial Operations

Commercial operations at CRQ consist of scheduled service performed by commuter aircraft of fewer than 60 seats. Table 1.4 and Figure 1.4 present forecasts of commercial operations developed using typical aviation activity forecasting techniques along with the FAA’s TAF. These forecasts consist of a market share of commuter/air taxi operations to national, state, and market-specific state operational levels, a 10-year trend line, and a forecast based on growth rates presented in the FAA Aerospace Forecasts for Fiscal Years 2003-2014.

When comparing and analyzing the various forecast extrapolations shown in Table 1.4 and Figure 1.4, it is apparent that use of the market share approach to project future aircraft operations yields a consistent estimate of future commercial operational levels. These forecasts, however, had wide variations when comparing average annual compound growth rates. Because of such variations, the market share forecasting technique was not considered a reliable forecasting tool for this forecasting effort.

When inspecting the TAF for the airport, the FAA’s assumed quick recovery between 2002 and 2003 is most evident. This single event would yield a single-year increase rate of almost 36 percent. As history has shown, perhaps because of the extended economic recession or military operations overseas, the recovery did not occur. Further, the projected 2002 annual total of commercial operations at the airport as listed in the TAF was higher than the actual levels recorded. If, however, this single year-over-year increase is discounted, the average annual compounded projected rate for the 10-year period covering 2003–2013 is reduced to a more conservative 2.3 percent. This estimate is similar to the FAA’s National Aerospace forecast of similar commercial operations of 2.78 percent for the same period.

Table 1.4

<table>
<thead>
<tr>
<th>Year</th>
<th>CRQ TAF Forecast¹</th>
<th>U.S. Market Share</th>
<th>California Market Share</th>
<th>California Primary Market Share</th>
<th>California Non-Primary Market Share</th>
<th>CRQ 10-Year Trend Line²</th>
<th>FAA Aerospace Forecast 2003³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>13,209</td>
<td>13,140</td>
<td>13,140</td>
<td>13,140</td>
<td>13,140</td>
<td>13,139</td>
<td>13,140</td>
</tr>
<tr>
<td>2003</td>
<td>17,964</td>
<td>13,740</td>
<td>13,803</td>
<td>13,921</td>
<td>13,628</td>
<td>15,326</td>
<td>13,469</td>
</tr>
<tr>
<td>2008</td>
<td>20,226</td>
<td>15,013</td>
<td>14,995</td>
<td>15,317</td>
<td>14,097</td>
<td>17,101</td>
<td>15,543</td>
</tr>
<tr>
<td>2013</td>
<td>22,488</td>
<td>16,258</td>
<td>16,053</td>
<td>16,548</td>
<td>14,566</td>
<td>18,877</td>
<td>17,701</td>
</tr>
</tbody>
</table>

Average Annual Compound Growth Rate

| Year | 2002-2013 | 4.96% | 1.95% | 1.84% | 2.12% | 0.94% | 3.35% | 2.75% |

Sources
Figure 1.4
COMMERCIAL OPERATIONS FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
Further comparison of the two remaining FAA-TAF and FAA Aerospace forecasts of future commercial activity at the airport for 2003 through 2013 reveals similar average annual growth rates of 2.27 and 2.76 percent, respectively. Examining the extrapolation of future commercial activity levels using the 10-year linear trend line technique yielded a similar average annual compound growth rate of 2.10 percent.

Based on current and near-term economic outlook for the airline industry and the absence of any known plans to expand the existing passenger terminal facility, an average annual growth rate of 3.0 percent was selected as the preferred forecast of commercial operations at the airport for the entire forecasting period of 2003 through 2013. This straight-line forecast, however, does not consider the potential effect of higher rates of commercial operation activity that may be generated by a new airline entrant or the potential for increased service by carriers currently serving the airport.

1.3.8.3 Updated Forecasts of General Aviation

General aviation operations consist of arrivals and departures (and touch-and-go evolutions) by aircraft not classified as commercial or military.

Table 1.5 and Figures 1.5 and 1.6 present itinerant and local general aviation operations forecasts using typical aviation activity forecasting techniques along with the FAA’s TAF. These forecasts consist of a market share of general aviation operations to national, state, and market-specific state operational levels, application of FAA Aerospace Forecast predicted growth rates, and a 10-year trend line for both itinerant and local operational levels.

As the table and figures indicate, the various forecast techniques result in widely disparate results that appear to have little correlation. An alternative approach was also used to examine factors currently affecting general aviation activity at CRQ, California, and the U.S. as a whole using professional judgment regarding how these factors may influence future activity levels at CRQ. A review of historical levels of local and itinerant operations revealed two general trends. The first trend is one of declining operations through the early 1990s. The second trend is one of stabilization, then a general growth trend that lasted until 1999. From 2000 through 2002, activity levels again began to decline in concert with issues discussed previously.

When examining the projections of future itinerant and local general aviation activity levels using national, state, primary and non-primary market share methodologies, the annualized growth rates fall in the range of 0.72 to 1.36 percent. This is somewhat validated by the fact that on a national level, the FAA’s 2003-2014 Aerospace Forecast anticipates that all general aviation operational activity will increase at an annualized rate of 1.3 percent. Inspection of the FAA’s TAF for similar activity at this airport reveals predictions of continued activity growth for 2003 through 2013 in the range of 1.8 percent for itinerant operations and 2.5 percent for local operations. When examining the 10-year linear extrapolated trend line of past operations that have occurred at the airport yields a much higher growth rate of 2.4 percent. This extrapolated trend assumption is more in line with the FAA’s anticipated growth rates for this sector on a regional and national level.
## Table 1.5
### GENERAL AVIATION OPERATIONS FORECASTS

<table>
<thead>
<tr>
<th>Year</th>
<th>CRQ TAF¹</th>
<th>U.S. Market Share</th>
<th>California Market Share</th>
<th>California Primary Market Share</th>
<th>California Non-Primary Market Share</th>
<th>CRQ 10-Year Trend Line²</th>
<th>FAA Aerospace Forecast 2003³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>129,102</td>
<td>126,277</td>
<td>126,277</td>
<td>126,277</td>
<td>126,277</td>
<td>126,266</td>
<td>126,277</td>
</tr>
<tr>
<td>2003</td>
<td>131,664</td>
<td>127,520</td>
<td>127,638</td>
<td>128,114</td>
<td>127,518</td>
<td>147,988</td>
<td>125,898</td>
</tr>
<tr>
<td>2008</td>
<td>144,356</td>
<td>133,484</td>
<td>134,434</td>
<td>137,312</td>
<td>133,703</td>
<td>151,150</td>
<td>135,358</td>
</tr>
<tr>
<td>2013</td>
<td>157,068</td>
<td>139,454</td>
<td>141,231</td>
<td>146,516</td>
<td>139,889</td>
<td>154,311</td>
<td>144,388</td>
</tr>
</tbody>
</table>

**Average Annual Compound Growth Rate**

- **2002-13:** 1.80% 0.91% 1.02% 1.36% 0.93% 1.84% 1.23%

### Local General Aviation Operations Forecasts

<table>
<thead>
<tr>
<th>Year</th>
<th>CRQ TAF¹</th>
<th>U.S. Market Share</th>
<th>California Market Share</th>
<th>California Primary Market Share</th>
<th>California Non-Primary Market Share</th>
<th>CRQ 10-Year Trend Line²</th>
<th>FAA Aerospace Forecast 2003³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>62,816</td>
<td>62,774</td>
<td>62,774</td>
<td>62,774</td>
<td>62,918</td>
<td>62,774</td>
<td>62,774</td>
</tr>
<tr>
<td>2003</td>
<td>64,618</td>
<td>63,195</td>
<td>63,283</td>
<td>63,562</td>
<td>63,247</td>
<td>74,914</td>
<td>62,962</td>
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<tr>
<td>2008</td>
<td>73,629</td>
<td>65,570</td>
<td>65,804</td>
<td>67,505</td>
<td>65,581</td>
<td>78,239</td>
<td>67,627</td>
</tr>
<tr>
<td>2013</td>
<td>82,640</td>
<td>67,947</td>
<td>68,326</td>
<td>71,448</td>
<td>67,916</td>
<td>81,563</td>
<td>72,138</td>
</tr>
</tbody>
</table>

**Average Annual Compound Growth Rate**

- **2002-13:** 2.52% 0.72% 0.77% 1.18% 0.72% 2.39% 1.27%

### Sources

1. FAA TAF, 2002 Scenario, March 2003, FY.

### Notes

These various forecasts, however, do not consider potential dynamics or paradigm shifts of general aviation activity that may be influenced by but not limited to the following actions or developments:

- Increased levels of based aircraft at the airport.
- Loss of based aircraft to other nearby airports.
- Development of amenities and related services for larger corporate jets.
- Competitive fuel pricing.
- Escalation of the price of aviation fuel.
- Unforeseen changes in the economy.
- Development of one or more locally based corporate jet fleets.
- Increased runway length.
Figure 1.5
ITINERANT GENERAL AVIATION FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
Figure 1.6
LOCAL GENERAL AVIATION OPERATIONS FORECAST

Sources:
CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
The potential for general aviation operations at CRQ to increase in future years will most likely depend on the operating decisions of specific businesses at the airport, as well as development decisions of the owner/operator of the airport, the County of San Diego.

For the express purposes of this FAR Part 150 aircraft activity forecast, annualized growth rates of 2.0 percent for itinerant general aviation operations and 2.5 percent for local general aviation operations were selected as the preferred forecasts of general aviation operations at CRQ for the entire forecasting period of 2003 through 2013.

1.3.8.4 Updated Forecast of Military Operations

The number of operations conducted by military aircraft usually depends on training requirements of the units using CRQ. Consequently, the level of operations varies from year to year with little predictability. Therefore, the FAA usually projects military operations at an airport to remain flat or near the most recent historical level throughout the forecasting period. This is also the recommended method to project military aircraft operations at CRQ. The recommended forecast of military aircraft operations at CRQ throughout the forecast period is 1,892 itinerant and 72 local operations.

1.3.8.5 Resultant Average Annualized Growth Rates

To develop a complete synopsis of anticipated levels of aircraft operational activity at the airport, a wide variety of aviation activity forecasts previously developed by others was collected, compiled, and reviewed. Such forecasts included projections developed as part of the FAA’s national, state, and airport-specific TAFs, the FAA’s FY 2003-2014 Aerospace Forecasts, and CRQ’s 1997 Master Plan.

As part of reviewing the FAA’s TAF projections for California, two sub-categories of the aircraft operations projections for the state were compiled based on the FAA’s National Plan of Integrated Airport Systems (NPIAS) airport classifications system of Primary and Non-Primary airports. The latest NPIAS lists CRQ as a Primary Airport. Using the state, Primary, and Non-Primary classifications, separate summations of TAF operational projections for the respective airports were created to examine market-share projections of future aircraft operations at CRQ. A 10-year trend analysis using linear projection techniques was also used for further comparison to all other forecasts.

A comparison of the various projected average annual compounded growth rates for each respective forecast is presented in Table 1.6.

1.3.8.6 Forecast of Total Operations

Applying varying average annualized growth rates to the 2002 aircraft operational totals, a preferred forecast of aviation activity for the CRQ FAR Part 150 Study Update was developed for the 10-year forecast period of 2003 through 2013. For this forecast, itinerant commuter operations through the forecast period were projected to increase at an average annual growth rate of 3.0 percent. Itinerant and local general aviation operations were projected similarly using growth rates of 2.0 and 2.5 percent, respectively.

The preferred FAR Part 150 forecast for total aircraft operations, including scheduled passenger airlines, general aviation, and military, is presented in Table 1.7.
Table 1.6
AVerage Annual
Compound Growth Rates
2003-2013

<table>
<thead>
<tr>
<th>Forecasts</th>
<th>Commercial Operations</th>
<th>Itinerant General Aviation Operations</th>
<th>Local General Aviation Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>URS Preferred</td>
<td>3.00%</td>
<td>2.00%</td>
<td>2.50%</td>
</tr>
<tr>
<td>CRQ TAF</td>
<td>2.27%</td>
<td>1.78%</td>
<td>2.49%</td>
</tr>
<tr>
<td>10-Year Trend Analysis</td>
<td>2.10%</td>
<td>0.41%</td>
<td>0.85%</td>
</tr>
<tr>
<td>FAA Aerospace Forecasts</td>
<td>2.77%</td>
<td>1.37%</td>
<td>1.36%</td>
</tr>
<tr>
<td>1997 Master Plan Update</td>
<td>1.44%</td>
<td>1.26%</td>
<td>0.33%</td>
</tr>
</tbody>
</table>

TAF Market Share Forecasts

<table>
<thead>
<tr>
<th></th>
<th>All US Airports</th>
<th>All CA Airports</th>
<th>CA Primary Airports</th>
<th>CA Non Primary Airports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.70%</td>
<td>1.52%</td>
<td>1.74%</td>
<td>0.66%</td>
</tr>
<tr>
<td></td>
<td>0.90%</td>
<td>1.02%</td>
<td>1.35%</td>
<td>0.93%</td>
</tr>
<tr>
<td></td>
<td>0.73%</td>
<td>0.77%</td>
<td>1.18%</td>
<td>0.71%</td>
</tr>
</tbody>
</table>

Source
URS Corporation, 2003

Table 1.7
Aircraft Operations Preferred Forecast

<table>
<thead>
<tr>
<th>Year</th>
<th>Itinerant Aircraft Operations</th>
<th>Local Aircraft Operations</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commuter</td>
<td>General Aviation</td>
<td>Military</td>
</tr>
<tr>
<td>2002</td>
<td>13,140</td>
<td>126,277</td>
<td>1,892</td>
</tr>
<tr>
<td>2003</td>
<td>13,534</td>
<td>128,803</td>
<td>1,892</td>
</tr>
<tr>
<td>2008</td>
<td>15,690</td>
<td>142,208</td>
<td>1,892</td>
</tr>
<tr>
<td>2013</td>
<td>18,189</td>
<td>157,010</td>
<td>1,892</td>
</tr>
</tbody>
</table>

Average Annual Compound Growth Rate

| Year    | 3.0% | 2.0% | 0.0% | 2.1% | 2.5% | 0.0% | 2.5% | 2.2% |

Source
URS Corporation, 2003

1.4 COMPARISON OF FORECASTS

When developing a forecast, it is helpful to compare the preferred forecast to the FAA’s TAF forecast published specifically for the airport. As presented in Table 1.8 and Figure 1.7, the preferred
forecast is approximately 20 percent below the TAF forecast of commercial operations at CRQ and over 10 percent lower than the TAF forecast of itinerant and local general aviation operations.

1.4.1 Commercial Operations

Inspection of the FAA’s TAF for CRQ reveals that the largest projected increase in commercial (commuter) operations was to occur between 2002 and 2003. Referencing the FAA’s ATAD data for the first six months of 2003, it is evident that the year-over-year annualized growth rate of 35 percent for commercial operations has not materialized. In fact, commercial operations at CRQ have increased at a moderate rate of only 5 percent. This TAF projection anomaly will have the direct effect of projecting higher operational levels for the 10-year period of 2003 through 2013 and is therefore considered unrealistic for this forecasting effort.

The comparison of the preferred 3.0 percent average annual growth rate of commercial operations growth to that of the CRQ TAF is shown in Table 1.8. As illustrated, the projections of commercial operations throughout the 10-year forecast period vary by as much as 19.0 percent.

1.4.2 General Aviation Operations

Similar to the FAA’s TAF for general aviation operations at CRQ, the projected increase in local and itinerant general aviation operations was projected to occur between 2002 and 2003. The FAA’s ATAD data for the first six months of 2003 indicate that these general aviation operations decreased by approximately 9.0 percent. Although operations are down approximately 9.0 percent, the preferred annualized forecast yields operational levels are similar to the FAA’s TAF general aviation operational forecast for the same period.

The comparison of the preferred 2.5 and 2.0 percent average annual growth rate for local and itinerant general aviation operations at CRQ TAF is shown in Table 1.8 and Figures 1.8 and 1.9. As illustrated, the projections of local and itinerant general aviation operations throughout the 10-year forecast period yield similar results and vary by as little as 0.04 percent.

1.5 FLEET MIX FORECAST

Currently, neither America West nor United Express, CRQ’s two scheduled carriers, are operating regional jet flights at CRQ. It is anticipated that both will shift to regional jet aircraft in the future. However, the likelihood of regional jet operations at this airport will be dependent primarily on overcoming existing runway length constraints while satisfying FAA-mandated runway safety area design requirements. At its current length of 4,900 feet, use of larger regional jet aircraft having higher approach speeds and wider wingspans may require modifications of current FAA design standards and/or limiting the operational weight of the aircraft on departure.
Table 1.8
COMPARISON TO FAA TAF AND URS ADJUSTED TAF FORECAST

<table>
<thead>
<tr>
<th>Year</th>
<th>Itinerant Commercial Operations</th>
<th>URS Forecast Difference Compared to TAF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>URS*</td>
<td>TAF</td>
</tr>
<tr>
<td>2002</td>
<td>13,140</td>
<td>13,209</td>
</tr>
<tr>
<td>2003</td>
<td>13,534</td>
<td>17,964</td>
</tr>
<tr>
<td>2008</td>
<td>15,690</td>
<td>20,226</td>
</tr>
<tr>
<td>2013</td>
<td>18,189</td>
<td>22,488</td>
</tr>
</tbody>
</table>

Average Annual Compound Growth Rate

<table>
<thead>
<tr>
<th>Period</th>
<th>URS Forecast</th>
<th>TAF Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2003</td>
<td>3.00 %</td>
<td>6.34 %</td>
</tr>
<tr>
<td>2003-2008</td>
<td>3.00 %</td>
<td>2.40 %</td>
</tr>
<tr>
<td>2008-2013</td>
<td>3.00 %</td>
<td>0.97 %</td>
</tr>
<tr>
<td>2002-2013</td>
<td>3.00 %</td>
<td>4.96 %</td>
</tr>
</tbody>
</table>

Itinerant General Aviation Operations

<table>
<thead>
<tr>
<th>Year</th>
<th>URS Forecast</th>
<th>TAF Forecast</th>
<th>URS Forecast Difference Compared to TAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>126,277</td>
<td>129,102</td>
<td>-2.19 %</td>
</tr>
<tr>
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<td>128,803</td>
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Average Annual Compound Growth Rate

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<th>TAF Forecast</th>
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<td>2002-2003</td>
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Local General Aviation Operations

<table>
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<tr>
<th>Year</th>
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<th>TAF Forecast</th>
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<tr>
<td>2013</td>
<td>82,365</td>
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<td>-0.34 %</td>
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Average Annual Compound Growth Rate

<table>
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<tr>
<th>Period</th>
<th>URS Forecast</th>
<th>TAF Forecast</th>
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<tbody>
<tr>
<td>2002-2003</td>
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<tr>
<td>2002-2013</td>
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<td>2.50 %</td>
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</table>

Source
URS Corporation, 2003

Note
*2002 actual commercial operations.
Figure 1.7
PREFERRED COMMERCIAL OPERATIONS FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
Figure 1.8
PREFERRED ITINERANT GENERAL AVIATION OPERATIONS FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
Figure 1.9
PREFERRED LOCAL GENERAL AVIATION OPERATIONS FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
CRQ has addressed existing non-standard runway safety area issues by using declared distance criteria and applying slight increases in published landing visibility minimums for its only precision instrument approach to the runway.

If the runway was extended to accommodate the full landing and takeoff runway length requirements for today’s regional jets (a minimum of 5,500 to 6,000 feet) while satisfying FAA runway safety area requirements, introduction of regional jets at CRQ would then offer additional city-pair opportunities while increasing the level of service to air travelers using CRQ.

Assuming that there are no imminent plans to extend the runway or to modify CRQ’s existing geometric design as necessary to accommodate sustained operations by larger aircraft having Airplane Design Group C-II operational requirements, the commercial commuter fleet mix for the two future forecast years was left unchanged. This projected general aviation fleet mix may change, however, if one or more of the following events occurred:

- Increase of based corporate jets.
- Migration of light single- and multi-engine based aircraft to other nearby airports.
- Increase of the airfield geometry (runway centerline-to-taxiway centerline separation).
- Provision of fully compliant runway safety areas.

Projections of fleet mix at CRQ are presented in Table 1.9.

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<tr>
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<td>2003</td>
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## FLEET MIX FORECAST (continued)

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Table 1.9  
FLEET MIX FORECAST  
(continued)

<table>
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<th>INM Aircraft Type</th>
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<th>2008</th>
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</table>

**Source**  

**Note**  
*Runway and Safety Area improvements may lead to commuter fleet conversion to regional jets.*
December 5, 2003

Peter Drinkwater
Director, County Airports
1900 Joe Crossen Drive
Gillespie Field Admin Building
El Cajon, CA 92020-1236

Dear Mr. Drinkwater:

McClellan-Palomar Airport
Preliminary Forecast of Aviation Activity

The Federal Aviation Administration (FAA) has reviewed the McClellan-Palomar Airport FAR Part 150 Study Update Preliminary Forecast of Aviation Activity, Revised November 5 2003. The Aircraft Operations Preferred Forecast presented in Table 1.7 of the document is acceptable to FAA and is approved for use in the Part 150 Update.

The forecast differs from the FAA Terminal Area Forecasts (TAF) by more than 10% in some respects. However, this difference does not affect the timing or scale of a proposed airport development project and does not affect the National Plan of Integrated Airport Systems (NPIAS) role of the airport. Under these circumstances, the locally developed operations forecast is considered to be consistent with the TAF.

Our specific comments regarding the forecast are enclosed. If you have any questions regarding forecast issues, I can be reached at (310) 725-3613.

Sincerely,

ORIGINAL SIGNED BY
RICHARD P. DYKAS

Richard P. Dykas
Supervisor, Capacity Section

Enclosure

cc: Floyd Best, Airport Manager
URS, Project Consultant
FAA Comments on.
McClellan-Palomar Airport FAR Part 150 Study Update Preliminary Forecast of Aviation Activity, Revised November 5 2003

Page 1-3, Section 1.2.2.3:

It's probably more the presence of San Diego International, rather than the hub and spoke system that limits opportunities for significant air service expansion at CRQ.

Page 1-3, Section 1.3.1:

FYI note. It is our experience that there is no difference between historic aircraft operations as reflected in TAF versus ATADS. ATADS is the source of TAF operations data for FAA towered airports. TAF historic operations numbers are reflected on federal fiscal year basis. ATADS data can be queried on either a fiscal or calendar year basis.

Page 1-7, Section 1.3.3:

It would be helpful to the layperson that might an interest in the Part 150 study (and by extension this forecast) to state the number of daily arrivals/departure currently performed by America West and United and to translate that into a hard number of annual operations, rather than talking in terms of percentages. The text is misleading in regards to the 16,545 commuter operations presented in Table 1.2 and figure 1.2. These operations do not all represent scheduled passenger operations performed by America West and United (Mesa Airlines and Sky West). A significant number (probably the majority) of the 16,545 "commuter" operations were actually performed by Air Taxi operators. The text should explain the difference between the two classes of commercial operators and explain that they are combined in FAA operations counts.

Page 1-8, Table 1.2

We recommend changing the header of the "Commuter" column to more accurately reflect that these operation numbers include the combination of "Commuter and Air Taxi" operations.

Page 1-12, Section 1.3.8.1:

We have not reviewed the 1997 master plan. Is the statement that the master plan projected a 3.2 percent by aircraft with 60 seats or more correct? We would have anticipated 60 seats or less.

The reference to FAA Aerospace forecast suggests FAA develops growth rate projections for "commuter/air taxi" operations. We have not reviewed the FAA Aerospace forecasts lately, but our recollection is that the document provides separate projections for commuter and air taxi, but does not reflect any type of combined "commuter/air taxi" growth rate.
Pages 1-22 and 1-27, Section 1.5:

We recommend a clear statement of the forecast assumptions regarding RJ use at CRQ as they relate to current airport sponsor plans for runway development. The statement on page 1-27, which begins, "Assuming that there are no imminent plans to extend the runway..." is ambiguous. The statement gives the impression that the consultant does not know what the airport sponsor's plans are. Does the airport sponsor plan to extend the runway by 2008 or not?

The statement on page 1-22 suggests RJ operations might be accommodated on the 4,900 foot runway by reducing useful aircraft loads, yet page 1-27 indicates a minimum 5,500 to 6,000 foot-long runway is required for RJ operations. It would generally be up to the air carriers to determine whether they wanted to serve the airport despite non-standard safety areas. FAA would not likely prohibit RJ operations if the carriers determined they could physically and economically operate on the existing 4,900-foot runway. Wider wingspans should not be an issue because the operations would still remain within Design Group II.

Establishment of the fleet mix is one of the more important aspects of the Part 150 update. Recommend providing an explanation detailing how the existing fleet mix was established. If there is a rationale for assuming the fleet mix will not change appreciably over the forecast period, recommend stating the assumptions. We doubt changes to either runway-taxiway separation or runway safety areas would have a measurable effect on GA activity levels.
Response to FAA Comments on
McClellan-Palomar Airport FAR Part 150 Study Update
Preliminary Forecast of Aviation Activity, Revised November 5, 2003

(Original FAA comments recreated verbatim)

1) Comment, Page 1-3, Section 1.2.2.3:
It’s probably more the presence of San Diego International, rather than the hub and spoke system that limits the opportunities for significant air service expansion at CRQ.

Response: Non-concur. Although San Diego is closer than Phoenix and Los Angeles, the major point of the discussion was that commuter airlines would most likely continue to offer service to and from those respective hubs when operating from CRQ.

2) Comment, Page 1-3, Section 1.3.1:
FYI note. It is our experience that there is no difference between historic aircraft operations as reflected in TAF versus ATADS. ATADS is the source of TAF operations data for FAA Towered airports. TAF historic operations numbers are reflected on federal fiscal year basis. ATADS data can be queried on either fiscal or calendar year basis.

Response: Concur. Comment noted and accepted as provided.

3) Comment, Page 1-7, Section 1.3.3:
It would be helpful to the layperson that might an interest in the Part 150 study (and by extension this forecast) to state the number of daily arrivals/departures currently performed by America West and United and to translate that into a hard number of annual operations, rather than talking in terms of percentages. The text is misleading in regards to the 16,545 commuter operations presented in Table 1.2 and figure 1.2. These operations do not all represent scheduled passenger operations performed by America West and United (Mesa Airlines and Sky West). A significant number (probably the majority) of the 16,545 “commuter” operations were actually performed by Air Taxi operators. The text should explain the difference between the two classes of commercial operators and explain that they are combined in FAA operations counts.

Response: Concur. The text will be modified to reflect the assumption that not all operations listed in the column labeled "commuter" represent traditional scheduled commuter operations. New text will be added to reflect the assumption that these annual totals more likely represent a combined count of
schedule commuter, on-demand air taxi and corporate flight activity having a filed flight plan designation of "Tango". Please see Errata pages attached.

4) Comment, Page 1-8, Table 1.2:
We recommend changing the header of the “Commuter” column to more accurately reflect that these operation numbers include the combination of “Commuter and Air Taxi” operations.

Response: Concur. The column title will be modified as suggested. Please see Errata pages attached.

5) Comment, Page 1-12, Section 1.3.8.1:
   a) We have not reviewed the 1997 master plan. Is the statement that the master plan projected a 3.2 percent by aircraft with 60 seats or more correct? We would have anticipated 60 seats or less.
   b) The reference to FAA Aerospace forecast suggests FAA develops growth rate projections for “commuter/air taxi” operations. We have not reviewed the FAA Aerospace forecasts lately, but our recollection is that the document provides separate projections for commuter and air taxi, but does not reflect and type of combined “commuter/air taxi” growth rate.

Response:
   a) Correction. The reference to "60 seats or more" was not cited in the 1997 Master Plan and was simply a misstatement and should read as: "60 seats or less". The text will be modified accordingly. Please see Errata pages attached.
   b) Non-concur. The Part 150 forecast text references data found in Table 1-7 of the Executive Summary for the FAA Aerospace Forecasts - Fiscal Year 2003-2014. This table lists projections of "Commuter/Air Taxi" operations. Accordingly, the text in the document is appropriate.

6) Comment, Pages 1-22 and 1-27, Section 1.5:
   a) We recommend a clear statement of the forecast assumptions regarding RJ use at CRQ as they relate to current airport sponsor plan for runway development. The statement on page 1-27, which begins, "assuming that there are no imminent plans to extend the runway...." is ambiguous. The statement gives the impression that the consultant does not know what the airport sponsor’s plans are. Does the airport sponsor plan to extend the runway by 2008 or not?

   The statement on page 1-22 suggest RJ operations might be accommodated on 4,900 foot runway by reducing useful aircraft loads, yet page 1-27 indicates a maximum 5,500 to 6,000 foot-long runway is required for RJ operations. It would generally be up to the air carriers to

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1 URS divided the comment into parts a and b.
2 URS divided the comment into parts a through d.
determine whether they wanted to serve the airport despite non-standard safety areas. FAA would not likely prohibit RJ operations if the carriers determined they could physically and economically operate on the existing 4,900-foot runway. Wider wingspans should not be an issue because the operations would still remain within Design Group II.

b) Establishment of the fleet mix is one of the more important aspects of the Part 150 update. Recommend providing an explanation detailing how the existing fleet mix was established.

c) If there is a rationale for assuming the fleet mix will not change appreciably over the forecast period, recommend stating the assumptions. We doubt changes to either runway-taxiway separation on runway safety areas would have a measurable effect on GA activity levels.

Response:
The section will be revised to:

a) Clarify airport sponsor plans and assumptions regarding future RJ operations,

b) Refer the reader to the appropriate sections of the document describing the development of the existing fleet mix,

c) State rationale and assumptions for the future fleet mix.

Please see Errata pages attached.
Errata for McClellan-Palomar Airport FAR Part 150 Study Update

Preliminary Forecast of Aviation Activity, Revised November 5, 2003

1) Table of Contents re Section 1.5: See item #7 and attached replacement page.
2) Page 1-7, section 1.3.3: Replace with:
   “Historical commuter operations are presented in Table 1.2 and Figure 1.2. Commuter operations at CRQ primarily consist of service by America West to Phoenix-Sky Harbor International Airport, and United Express to Los Angeles International Airport. For the purposes of this Part 150 forecast, it was assumed that these recorded annual total more operations of “commuter” activity most likely represent a combined count of schedule commuter, on-demand air taxi and corporate flight activity having a filed flight plan designation of “Tango”. Commuter operations have increased approximately 148 percent since 1980, an average annual increase of almost 4.2 percent. The airport experienced its highest level of commuter operations in 2000, with 16,545 commuter operations.”
3) Table 1.2 (page 1-8): Clarify column heading of “Commuter”. See attached.
4) Page 1-12, 1st paragraph, 3rd line: Replace “…60 seats or more…” with “…60 seats or less...”. See attached.
5) Figure 1.4 (page 1-14): Modify legend to avoid truncation of line label. See attached.
6) Page 1-22: Move Section 1.5 to a new page. See attached.
7) Section 1.5: Replace to reflect the response to FAA comment #6 and provide conclusions regarding future general aviation and military fleet mixes. See attached.
8) Table 1.9 (pages 1-27 through 1-29):
   a. Clarify presentation of overall helicopter percentages and specific helicopter fleet percentages
   b. Fix page breaks.

See attached.
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1.3.2 Air Carrier Operations

For traffic-count purposes, an air carrier aircraft is defined as having a maximum passenger seating capacity of more than 60. Since 2000, all scheduled passenger service at CRQ has been provided by commuter aircraft of fewer than 60 seats.

1.3.3 Commuter Operations

Historical commuter operations are presented in Table 1.2 and Figure 1.2. Commuter operations at CRQ primarily consist of service by America West to Phoenix-Sky Harbor International Airport, and United Express to Los Angeles International Airport. For the purposes of this Part 150 forecast, it was assumed that these recorded annual total more operations of "commuter" activity most likely represent a combined count of schedule commuter, on-demand air taxi and corporate flight activity having a filed flight plan designation of "Tango". Commuter operations have increased approximately 148 percent since 1980, an average annual increase of almost 4.2 percent. The airport experienced its highest level of commuter operations in 2000, with 16,545 commuter operations.

1.3.4 General Aviation Operations

General aviation includes all segments of the aviation industry except for commercial air service and military operations. Typical general aviation activities include pilot training, corporate, and pleasure flying. Operations at the airport are conducted by single- and multi-engine piston aircraft, turboprop and turbojet aircraft, and helicopters.

General aviation operations are recorded as local or itinerant. Local operations, primarily arrivals or departures performed by aircraft remaining in the airport traffic pattern or local training area, are most often associated with training activity and flight instruction. Itinerant operations are arrivals or departures other than local operations performed by either based or transient aircraft.

Table 1.2 and Figure 1.3 present historical general aviation operations separated into itinerant and local operations. On average, since 1980 itinerant general aviation operations have accounted for 59 percent of general aviation activity at CRQ. General aviation activity generally increased from the early 1980s through 1999. Since then, operations have experienced a downward trend beginning in 2000. The reduction of recent general aviation activity at the airport is a direct reflection of the economic downturn. Based on historical trends, local and itinerant general aviation activity will most likely rebound to previous levels mirroring increased economic activity, leading to increased business-related and personal pleasure flight activity.

1.3.5 Military Operations

Military operations at CRQ have fluctuated since 1980, with a high in 1999 of 12,617 operations and a low in 1997 of 1,364 operations. According to air traffic control personnel, military operations at CRQ consist primarily of aircraft performing training operations. Military aircraft using CRQ consist primarily of transport aircraft, such as the C-2, C-9, and C-12, and rotary-wing aircraft, such as the OH-58, CH-53, and SH-60. Historical military operations are presented in Table 1.2.
### Table 1.2

#### HISTORICAL AIRCRAFT OPERATIONS

<table>
<thead>
<tr>
<th>Year</th>
<th>Itinerant Operations</th>
<th>Local Operations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Air Carrier*</td>
<td>Commuter**</td>
<td>GA</td>
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<tr>
<td>1980</td>
<td>0</td>
<td>5,305</td>
<td>117,383</td>
</tr>
<tr>
<td>1981</td>
<td>0</td>
<td>3,369</td>
<td>106,700</td>
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<tr>
<td>1982</td>
<td>0</td>
<td>5,122</td>
<td>85,072</td>
</tr>
<tr>
<td>1983</td>
<td>31</td>
<td>8,862</td>
<td>93,756</td>
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<tr>
<td>1984</td>
<td>0</td>
<td>6,327</td>
<td>103,433</td>
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<tr>
<td>1985</td>
<td>0</td>
<td>7,283</td>
<td>109,750</td>
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<tr>
<td>1986</td>
<td>0</td>
<td>6,476</td>
<td>116,339</td>
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<tr>
<td>1987</td>
<td>3,596</td>
<td>7,380</td>
<td>120,127</td>
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<tr>
<td>1988</td>
<td>0</td>
<td>9,416</td>
<td>127,741</td>
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<tr>
<td>1989</td>
<td>0</td>
<td>7,402</td>
<td>143,186</td>
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<tr>
<td>1990</td>
<td>38</td>
<td>10,457</td>
<td>154,806</td>
</tr>
<tr>
<td>1991</td>
<td>0</td>
<td>11,646</td>
<td>139,129</td>
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<tr>
<td>1992</td>
<td>0</td>
<td>11,525</td>
<td>135,897</td>
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<tr>
<td>1993</td>
<td>0</td>
<td>11,435</td>
<td>134,155</td>
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<tr>
<td>1994</td>
<td>0</td>
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<tr>
<td>1995</td>
<td>1</td>
<td>14,152</td>
<td>131,289</td>
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<tr>
<td>1996</td>
<td>14</td>
<td>14,414</td>
<td>144,149</td>
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<tr>
<td>1997</td>
<td>58</td>
<td>10,625</td>
<td>159,362</td>
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<tr>
<td>1998</td>
<td>4</td>
<td>12,067</td>
<td>150,988</td>
</tr>
<tr>
<td>1999</td>
<td>12</td>
<td>14,951</td>
<td>180,069</td>
</tr>
<tr>
<td>2000</td>
<td>0</td>
<td>16,545</td>
<td>152,184</td>
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<td>2001</td>
<td>0</td>
<td>15,176</td>
<td>131,284</td>
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<td>2002</td>
<td>0</td>
<td>13,140</td>
<td>126,277</td>
</tr>
</tbody>
</table>

**Sources**
FAA TAF 2002 Scenario, March 2003, for years 1980 to 1989; McClellan-Palomar FAA ATADS, for years 1990 to 2001.

**Notes**
TAF data is presented in FAA fiscal years. Other records are presented in calendar years.

GA = General Aviation

*CRQ has never had commercial air carrier service (aircraft of 60 seats or more). According to the FAA tower staff, it is likely that nearly all of previous years' counts of air carrier operations were mistakenly classified as air carrier ops and should have been classified as air taxi (commuter) operations.

** includes scheduled commuter operators as well as on-demand air taxi and corporate flight activity having filed a flight plan designation of “Tango”.
Table 1.3
1997 MASTER PLAN FORECAST

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Annual Itinerant Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>6,534</td>
<td>8,182</td>
<td>9,650</td>
<td>10,484</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>12,683</td>
<td>14,546</td>
<td>15,745</td>
<td>15,726</td>
</tr>
<tr>
<td>General Aviation</td>
<td>150,800</td>
<td>159,800</td>
<td>170,400</td>
<td>182,000</td>
</tr>
<tr>
<td>Military</td>
<td>2,800</td>
<td>2,800</td>
<td>2,800</td>
<td>2,800</td>
</tr>
<tr>
<td><strong>Annual Local Operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Aviation</td>
<td>74,200</td>
<td>75,200</td>
<td>76,600</td>
<td>78,000</td>
</tr>
<tr>
<td>Military</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Annual Operations</strong></td>
<td>247,117</td>
<td>260,628</td>
<td>275,295</td>
<td>289,110</td>
</tr>
</tbody>
</table>

**SOURCE**
1997 McClellan-Palomar Airport Master Plan, Coffman Associates, Inc.

Over the 15-year forecast period of 2000 through 2015, the average annual compound growth rate of all aircraft operations was reported to be 1.05 percent. Projected average annualized compound growth rates for commercial operations of aircraft having 60 seats or less was 3.20 percent and air taxi operations was reported to be 1.44 percent for the same period. Local general aviation operations were projected to increase at a rate of approximately 1 percent, whereas itinerant general aviation operations were projected to increase at a rate of approximately 1.3 percent annually. In keeping with standard practices of forecasting military operations at civilian airports, local and itinerant military operations were held constant throughout the entire forecast period.

Based on this review, it is apparent that the Master Plan’s forecast of commercial operations does not adequately reflect current market conditions, the adverse effects of September 11, or other factors. Likewise, variations in growth characteristics of local and itinerant general aviation and military aircraft operations, as well as the evolving air taxi market, would suggest that a revised and updated forecast of aircraft operations is currently warranted. That said, overall annualized operations levels for all aircraft appear to fall within 5 to 13 percent of current projects as listed in the TAF for the airport.

- **FAA Terminal Area Forecast.** The TAF projects aircraft operations at CRQ to increase to approximately 297,000 in 2020 from their current level of approximately 204,000 operations in 2002. The average annual growth rate associated with this forecast is approximately 2.1 percent.

- **FAA Aerospace Forecasts, FY 2003-2014 (March 2003):** Using the FAA’s Aerospace Forecast for Fiscal Years (FY) 2003-2014, average annual compound growth rate projections of commuter/air taxi operations and general aviation operations were developed for the forecast period (2002-2013). These FAA growth rates were applied to the actual respective activity levels for 2002 and have grown outward to 2013.
Figure 1.4
COMMERCIAL OPERATIONS FORECASTS

CRQ FAA ATADS for years 1990 to 2001.
URS/CRQ for 2002.
forecast is approximately 20 percent below the TAF forecast of commercial operations at CRQ and over 10 percent lower than the TAF forecast of itinerant and local general aviation operations.

1.4.1 Commercial Operations

Inspection of the FAA’s TAF for CRQ reveals that the largest projected increase in commercial (commuter) operations was to occur between 2002 and 2003. Referencing the FAA’s ATAD data for the first six months of 2003, it is evident that the year-over-year annualized growth rate of 35 percent for commercial operations has not materialized. In fact, commercial operations at CRQ have increased at a moderate rate of only 5 percent. This TAF projection anomaly will have the direct effect of projecting higher operational levels for the 10-year period of 2003 through 2013 and is therefore considered unrealistic for this forecasting effort.

The comparison of the preferred 3.0 percent average annual growth rate of commercial operations growth to that of the CRQ TAF is shown in Table 1.8. As illustrated, the projections of commercial operations throughout the 10-year forecast period vary by as much as 19.0 percent.

1.4.2 General Aviation Operations

Similar to the FAA’s TAF for general aviation operations at CRQ, the projected increase in local and itinerant general aviation operations was projected to occur between 2002 and 2003. The FAA’s ATAD data for the first six months of 2003 indicate that these general aviation operations decreased by approximately 9.0 percent. Although operations are down approximately 9.0 percent, the preferred annualized forecast yields operational levels are similar to the FAA’s TAF general aviation operational forecast for the same period.

The comparison of the preferred 2.5 and 2.0 percent average annual growth rate for local and itinerant general aviation operations at CRQ TAF is shown in Table 1.8 and Figures 1.8 and 1.9. As illustrated, the projections of local and itinerant general aviation operations throughout the 10-year forecast period yield similar results and vary by as little as 0.04 percent.
1.5 FLEET MIX – EXISTING AND FORECAST

The existing and projected future fleet mixes at CRQ are presented in Table 1.9 and discussed in the following two subsections. Table 1.9 shows the fleet mixes by representative Integrated Noise Model (INM) aircraft type. The INM is the FAA’s computer program for modeling noise exposure around airports. Representative INM types are described in Appendix D of the Noise Exposure Map document.

1.5.1 Existing Fleet Mix

The derivation of the existing fleet mix is described in detail in Section 5 of the Noise Exposure Map document. In summary, the existing fleet mix was based on data from multiple sources including interviews of America West and United Express, analysis of FlightVue data provided by a CRQ fixed-base operator, interviews of CRQ management and Air Traffic Control Tower personnel and analysis of FAA Flight Progress Strips.

1.5.2 Future Fleet Mix

Airport representatives indicated that a runway extension within the 5-year and 10-year forecast periods of the Part 150 study is unlikely. Furthermore, CRQ does not anticipate any other changes to the airport that may induce or allow changes to the current fleet mix.

Currently, neither America West nor United Express, CRQ’s two scheduled carriers, are operating regional jet (RJ) flights at CRQ. On a national scale, it is anticipated that both will shift to RJ aircraft in the future. Introduction of RJs at CRQ would offer additional city-pair opportunities while increasing the level of service to air travelers using CRQ. However, the likelihood of RJ operations specifically at CRQ will be dependent primarily on the carriers’ determination of operational and economic feasibility to operate RJ aircraft. Feasibility considerations include:

- sufficient runway length to accommodate higher approach speeds and
- sufficient runway length to accommodate increased departure weights or sufficient runway/taxiway strengths to accommodate increased departure weights (or limits to departure weights – less fuel and/or passengers and/or less range).

Wider wingspans of current RJs should not be an issue because their operations would still remain with the aircraft group to which the airport was designed (Design Group II).

CRQ has addressed existing non-standard runway safety area issues by using declared distance criteria and applying slight increases in published landing visibility minimums for its only precision instrument approach to the runway.

As of the date of this forecast, CRQ has not received any documented intentions by the scheduled operators to shift to RJ aircraft. This coupled with CRQ not having any documented plans of extending the runway or making any other changes to the airport to induce or allow changes to the current fleet mix in the next 10 years, the commercial commuter fleet mix for the two future forecast years was left unchanged. In other words, RJ growth, or its forecasted lack of growth, was
predicated on CRQ maintaining the existing 4,900-foot runway and the associated operational/economic ramifications of the existing runway to non-stop haul length, runway takeoff and landing length minimums.

This projected general aviation fleet mix may change, however, if one or more of the following events occurred:

- Increase of based corporate jets.
- Migration of light single- and multi-engine based aircraft to other nearby airports.
- Increase of the airfield geometry (runway centerline-to-taxiway centerline separation).
- Provision of fully compliant runway safety areas.

These events would be influenced by:

- Changes in the local and national economy,
- Perceptions of personal wealth and
- Unforeseen changes to airfield geometry that would allow operation of larger more demanding aircraft such as business-class jets.

As these events and their influencing factors are difficult, if not impossible, to predict the general aviation fleet mix was left unchanged for the two forecast periods except for the civilian helicopter fleet. Civic Helicopters and Mercy Flite, via interview, provided planned changes to their fleets as shown in Table 1.9

The Military fleet mix was left unchanged for the two forecast periods.
Table 1.9

FLEET MIX FORECAST

<table>
<thead>
<tr>
<th>Representative INM Aircraft Type</th>
<th>Forecast Year</th>
<th>2003</th>
<th>2008</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Itinerant</td>
<td>Local</td>
<td>Touch and Go</td>
</tr>
<tr>
<td>Commuter/Air Taxi Fleet Mix</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAR35</td>
<td></td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>MU3001</td>
<td></td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>CNA750</td>
<td></td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>CL600</td>
<td></td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>CNA500</td>
<td></td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>CIT3</td>
<td></td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>GIV</td>
<td></td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>GIIB</td>
<td></td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>CL601</td>
<td></td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
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<td>12%</td>
<td>12%</td>
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<td>EMB120*</td>
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<td>31%</td>
<td>31%</td>
<td>31%</td>
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<td>DHC6</td>
<td></td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>BEC58P</td>
<td></td>
<td>5%</td>
<td>5%</td>
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## Table 1.9
### FLEET MIX FORECAST
(continued)

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<tr>
<th>Representative INM Aircraft Type</th>
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<th>2008</th>
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<td>20%</td>
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<td>CNA441</td>
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<tr>
<td>Helicopter (overall)</td>
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<td>20%</td>
<td>30%</td>
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### General Aviation Helicopter Fleet Mix

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<td>R22BII</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
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<td>54%</td>
<td>54%</td>
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<tr>
<td>MD500D</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Bell206</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
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<td>EC120</td>
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<tr>
<td>AS350</td>
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<td>0%</td>
<td>0%</td>
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<tr>
<td>Bell222</td>
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</tr>
<tr>
<td>MD902</td>
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### Table 1.9

**FLEET MIX FORECAST**

(continued)

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<th>Representative INM Aircraft Type</th>
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</tr>
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<td></td>
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</tr>
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<td>C-12</td>
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<td>100%</td>
<td></td>
</tr>
<tr>
<td>CH-53E</td>
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<td>19%</td>
<td></td>
</tr>
<tr>
<td>OH-58</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-60</td>
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**Military Fleet Mix**

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<th>Aircraft Type</th>
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<th>2008</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-9</td>
<td>9%</td>
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<tr>
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<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-12</td>
<td>45%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>CH-53E</td>
<td>19%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>OH-58</td>
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</tr>
<tr>
<td>H-60</td>
<td>9%</td>
<td></td>
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</tr>
</tbody>
</table>

**Source**


**Note**

*Increases in available runway length and improvements to existing nonstandard Runway Safety Areas may facilitate operations by larger, more demanding jet aircraft (i.e., Regional Jets) at CRQ.*
## PALOMAR AIRPORT ADVISORY COMMITTEE (PAAC) MEMBERS

<table>
<thead>
<tr>
<th>NAME</th>
<th>Seat</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Christensen</td>
<td>City of Oceanside</td>
</tr>
<tr>
<td>Chuck Collins</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Council Member Ramona Finnila (Chairperson)</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Robert Fuselier</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Tim Hutter (Co-Chairperson)</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Bob Gates</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Hugh Lyttleton</td>
<td>General Public District 5</td>
</tr>
<tr>
<td>Ginna Reyes</td>
<td>City of Carlsbad</td>
</tr>
<tr>
<td>Tom Ricotta</td>
<td>City of Vista</td>
</tr>
<tr>
<td>Howard Williams</td>
<td>General Public District 5</td>
</tr>
<tr>
<td><strong>Open Seat</strong></td>
<td>City of San Marcos</td>
</tr>
</tbody>
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Source: CRQ, 2004
McClellan-Palomar Airport
Part 150 Noise Compatibility Study
Update
Palomar Airport Advisory Committee
Meeting
October 16, 2003

Agenda
- Summary of Preliminary Forecast
  - Past Activity
  - Existing Forecasts
  - Recent Events
  - URS methods and ‘preferred’ forecast
  - Fleet Mix Considerations
- Next Steps

Past Activity
- Economic recession
- September 11th
- Middle East hostilities
- Industry trends

Existing Forecasts

Recent Events

URS Forecast Methods
- Trend
- Market Share
- Professional Judgment
- Separate Commercial and General Aviation
Preferred Forecast

Fleet Mix Forecast

- Commercial
  - No changes documented
  - Runway length constraint or FAA design standards modification needed
- General Aviation
  - No changes for fixed-wing fleet
  - Minor changes in helicopter fleet
- Military
  - No changes

Next Steps

- FAA is reviewing the forecast
- Flight Profiles Submittal to FAA
- Generate NEM for Existing Operations
- Generate NEMs for Forecasts
Public Meeting Format

- Open House (6-6:30)
- Introductions and Opening Remarks (6:30-6:35)
- Presentation (6:35-7:20)
- Break and Boards (7:20-8)
- Your Comments on NEMs and Input on NCP (8-9)

Presentation Outline

- Study Definition, Goals, Impetus and Requirements
- Process and Progress
- Analysis and Noise Exposure Maps
- Schedule for Remainder of Study Update

Process and Progress

- Conducted Kick-off Meeting (March 2003)
- Airport website and monthly PAAC meetings
- Data Collection and Analysis (ongoing)
- Forecast Approval (November 2003)
- Develop Noise Exposure Maps (NEM)
- NEM Review and Approval
- Develop Noise Compatibility Program
- Prepare Draft Study
- Study Review and Approval

www.co.san-diego.ca.us/dpw/airports

Next Milestone

- Comments on NEMs due 14 April

Representative Flight Operations (CY2002)

- Contacted Operators/Tenants
- Analyzed Tower counts & GEMS data

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Air Carrier</td>
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<td>Air Taxi</td>
<td>13,140</td>
<td>6%</td>
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<td>GA IFR</td>
<td>45,410</td>
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<td>GA VFR</td>
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<td>71%</td>
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**Modeled Average Daily Flight Operations for CY2004**

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<th>Period</th>
<th>Departure</th>
<th>Arrival</th>
<th>Training</th>
<th>Missed Approach</th>
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<td></td>
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<td>Morning</td>
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<td>3.1</td>
<td>4.1</td>
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<td><strong>SUMMARY</strong></td>
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<td>127.8</td>
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**Notes:**
1) Daytime = 7am - 7pm; Evening = 7pm - 10pm; Nighttime = 10pm - 7am
2) Each Missed Approach counted as two operations
3) Each Touch and Go counted as two operations

**Fleet Mix for CY2004**

<table>
<thead>
<tr>
<th>Operation Type</th>
<th>Jet</th>
<th>Twin Turboprop</th>
<th>Twin Piston</th>
<th>Single</th>
<th>Helicopter</th>
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<tr>
<td><strong>Grand Total</strong></td>
<td>61%</td>
<td>18%</td>
<td>11%</td>
<td>4%</td>
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**Flight Track Development & Utilization**

**Nominal Departure Flight Tracks**

**Nominal Arrival & Missed Approach Flight Tracks**

**Nominal Training Flight Tracks**
Other Factors

- FAA-approved flight profiles
- Run-ups
  - Hold Short areas
  - Props
- Weather
  - 61° Fahrenheit
  - 71% RH
  - Wind: 212 deg at 4 kts
- Terrain

Community Noise Equivalent Level (CNEL)

- Expressed in A-weighted decibels
- Accounts for noise from single specific aircraft type events
- Penalizes evening and nighttime events
- Utilizes annual average daily operations
- Contours of overall aircraft sound exposure
- Specified by CCR Title 21

Draft Noise Exposure Map for 2004

Community Noise Equivalent Level (CNEL)

Draft Noise Exposure Map for 2009

Forecasting Flight Operations

- Recent Events
- Forecast Methods
  - Trend
  - Market Share
  - Professional Judgment
  - Separate Commercial and General Aviation
  - FAA Approval
Chairperson Ramona Finnila called the meeting to order at 7:05 p.m. on November 21, 2002, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

**MEMBERS PRESENT**
- Ramona Finnila, Chairperson
- Thomas Ricotta, Vice Chairperson
- Bill Bradford
- Robert Gates
- Tim Hutter
- Hugh Lyttleton
- Ginna Reyes
- Howard Williams

**MEMBERS ABSENT**
- Warren Deem
- Brad Lunn
- Carol McCauley

Members present did represent a quorum.

**COUNTY STAFF PRESENT**
- Chandra Wallar
- Rick Jenkins
- Roger Griffiths
- Russ Couchman
- Dee Dee Phillips
- Darlene Haslett-Kitchen
- Larry Simon
- John Christensen

**ROLL CALL AND INTRODUCTIONS**

Ms. Finnila will speak with the City of Oceanside to find out if Carol McCauley will be replaced. She hopes to have the answer by the next meeting.
Ms. Finnila introduced Mr. Roger Griffiths as McClellan-Palomar Airports new Assistant Manager. Ms. Finnila also introduced Ms. Chandra Wallar DPW’s Assistant Director.

APPROVAL OF MINUTES

Minutes for the months of September and October were approved. Ms. Finnila, Mr. Ricotta, Mr. Bradford, and Mr. Williams abstained from voting on the October minutes.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

Martha Greenlaw of Magellan Aviation invited all to attend their annual Christmas Party. It will be held Wednesday December 18, 2002 from 4-8pm at Magellan.

Ms. Greenlaw serving as a member of the Carlsbad Airport Task Force, stated that along with the Carlsbad Chamber of Commerce an e-mail survey of all Chamber members was conducted. The survey asked how McClellan-Palomar Airport could better serve North County. Ms. Greenlaw requested that the results of the survey be put on the next PAAC agenda.

CITY COUNCIL REPORTS

No report given.

RECOMMENDATION FOR PALOMAR AIRPORT CENTER LLC NEW LEASES

Ms. Wallar addressed the PAAC members, she stated that the PAC, LLC lease is wonderful for the airport. It is a great opportunity to take the current leasehold and turn it into something more functional. County staff, Palomar Airport Center and the Palomar Airport Pilot’s Association worked together cooperatively on this lease agreement. The FAA is happy with this project as well and agree that it will enhance the airports functionality.

Mr. Jenkins spoke of the impact this proposed lease plan would have on the airport and how it fits in with the master plan. Mr. Jenkins stated that the existing east/west and north/south taxiway are located on the PAC, LLC lease. The taxiways create an island effect making security very difficult. This issue was specifically addressed in this lease proposal. Mr. Jenkins stated that the goal was to provide public taxiway access to Jetsource hangar 1, improve taxiway access to the proposed new commuter terminal, and to increase security. This lease proposal allows access to businesses without having to go onto the airside of the airport.

Mr. Hutter questioned Mr. Jenkins in regards to the proposed terminal. Mr. Jenkins responded by stating that this is only a proposal and the feasibility studies have yet to be conducted. The County will not move forward with the proposed terminal until the Transportation Security Administration has completed their regulations in regards to terminal security and safety.
Mr. Lyttelton asked if the proposal for new public parking facilities is considered airport expansion, and if so would it have to be voted for by the residents of Carlsbad? Ms. Finnila responded by stating that the interpretation of airport expansion differs, and the final decision would go before the County Board of Supervisors.

Ms. Reyes asked when the master plan would reflect these proposals. Mr. Jenkins responded by stating that the process takes roughly five years, and a new master plan has yet to be considered.

Ms. Haslett-Kitchen presented the Palomar Airport Center LLC amended lease proposal.

**History:**
- Approval of lease with Burrows Southcoast, Inc. November 6, 1990
- Boundary issues resulted in settlement agreement in December 20, 1993
  - Amended from Burrows to Palomar Airport Center, LLC April 21, 1998
  - Includes provision for right of first refusal
- Negotiations ongoing for past three years

**Project Goals:**
- Redevelop center of Palomar Airport
- Provide for operational needs of airport
- Address safety and security issues
- Provide long term home for portable hangars

**Many Challenges:**
- Maximize development on non-landfill impacted area
- Define landfill area, existing utilities, easements
- Completion of landfill remediation project
- Build in flexibility for future landfill remediation project
- Address recent security issues
- Satisfy conditions of settlement agreement
- Accommodate portable hangars
- Plan for future utilization of airport
- Expand taxiway/maneuver area around terminal
- Provide maximum flexibility for parking

**Solutions:**
- 5 Separate leases
  - Address landfill vs. non-landfill areas
  - Provide flexibility for parking, tie downs
  - Provide relocation area for portable hangars in future landfill remediation
  - Allow maximum development
- Restaurant MOU
  - Short term solution-temporary location
  - Long term solution-first right of refusal
- Redefine leasehold boundaries
  - Returns 1+ acre to County control
  - Provides 150’ taxiway area to satisfy terminal needs
Adds landfill impacted area to satisfy parking requirements, accommodate portable hangars, and provide space for future landfill remediation needs

**Description of Lease 1**
+ Lease 1 Fuel island only
  - Lessee-Palomar Airport Fuel, LLC
  - .48 acres of non-landfill impacted area
  - Lease commences June, 2003
  - Rent commences June, 2003 @$1,450 per acre
  - Improvements completed

*Lease 1*
+ Fuel island
+ .48 acres
+ Capital improvements complete
+ Non-landfill area

**Description of Lease 2**
+ Lease 2 non-landfill impacted area
  - Lessee-Palomar Airport Center, LLC (PAC)
  - 6.06 acres of non-landfill impacted area
  - Lease commences June, 2003
  - Rent commences June, 2006 @ new appraised rate-deferred in recognition of boundary adjustment to return 1+ acre to County
  - Redevelopment complete in 36 months
  - If redevelopment complete in 24 months, 2 year extension added to leases

*Lease 2*
+ 6.06 acres
+ Complete redevelopment
+ Non-landfill area
+ Boundary may be adjusted if extent of landfill changes

**Description of Lease 3**
+ Lease 3 Landfill impacted area
  - Lessee-Pac, LLC
  - 3.09 acres will provide staging area for redevelopment of Lease 2, then tie downs
  - Rent begins June, 2006 @ new appraised rate
  - Lessee may decide to remediate landfill in future on this area providing room for more redevelopment-will require additional negotiations

*Lease 3*
+ 3.09 acres
+ Landfill area
+ Possible remediation in future
+ Boundary may require adjustment in future

**Description of Lease 4**
+ Lease 4 landfill area reserved for home of existing portable hangars
  - Lessee-PAC, LLC
- Lease commences January, 2003
- Rent commences January, 2003 @ $1,100 per acre
- 3.37 acres subleased to PAPA, the Palomar Airport Pilots Association, owners of portable hangars, for 30 years, with built in rent cap

**Lease 4**
+ 3.37 acres
+ Landfill area
+ Location of portable hangars
+ Sublease w/PAPA
+ May need remediation in future

**Description of Lease 5**
Lease 5 landfill flex area currently used for parking
- Lessee-PAC, LLC
- Lease commences June, 2003
- Rent commences June, 2003 on part of area needed for parking for lessee @ $1,100 per acre
- 1.82 acre area reserved for public parking
- Airports Director has discretion for use
  *Parking, tie downs or landfill remediation

**Lease 5**
+ 1.82 acres
+ Flexible area
+ Currently used for parking
+ Can be aviation tie down area or location for landfill remediation moves

**Resources available**
+ The following firms, in association with PAC, have been working closely with County staff to arrive at the proposal before you:
  - Foley and Lardner-legal
  - Reeves Associates, Inc.-architects
  - URS-soils and landfill
  - Project Design Consultants- civil
  - Butsco Utility Design, Inc.-utilities

Ms. Haslett-Kitchen stated that questions concerning the proposal can be directed to the appropriate firm, most of which are present here tonight. Ms. Haslett-Kitchen asked that PAAC move to approve the County recommendation for presentation to the County Board of Supervisors on December 11.

Mr. Ricotta asked if the adjustment to the taxiway increased or decreased the amount of land leased. Ms. Haslett-Kitchen responded by stating that yes the amount of land increased by 3 to 4 additional acres, most of which is landfill impacted. Ms. Haslett-Kitchen stated that the proposal called for temporary relocation of a modular restaurant to the grassy knoll adjacent to Western Flight. A relocation would be very costly, and all fees would be paid by PAC, LLC.
Ms. Finnila asked for the location of the utilities that go into the airport. Ms. Haslett-Kitchen stated that the utilities are left of the terminal and follow the taxilane on the east/west area between PAC, LLC and Jetsource hangar 1, which is on the PAC, LLC leasehold.

Mr. Ricotta asked if there was an actual blueprint for the proposal. Ms. Haslett-Kitchen responded that there will be five large hangars, an administration area, and pilot’s quarters. Mr. Ricotta asked where the location of the tie downs will be. Ms. Haslett-Kitchen responded by stating that the area adjacent to the north/south taxiway will remain available for tie downs. The Airport Director will also have the discretion to ensure the availability of tie down space.

Mr. Sax, a principal to the lease agreement, stated that there will be 80,800’ of hangar space and 17,000’ of office space.

Mr. Hutter asked what actions were taken during the six years between negotiations and the actual settlement. Ms. Haslett-Kitchen responded by stating that the landfill and solid waste remediation caused a considerable delay.

Mr. Gates asked how this proposal relates to the master plan. Ms. Haslett-Kitchen stated that acquiring the additional 150’ of taxiway is the only item that does appear in the master plan and that this project is within the current master plan confine.

Mr. Lyttleton asked if parking and anticipated growth of the airport has been considered. Mr. Jenkins responded that it is suggested that lots 29, 30, and 31 be used for public parking.

Mr. Hutter asked about access to the west-end businesses during the project should the access road become blocked. Mr. Jenkins stated that accommodations will be made, so that access will always be available to the west-end businesses.

Mr. Gates asked if the proposal in relation to the master plan is a move to accommodate larger planes as opposed to smaller general aviation planes. Mr. Jenkins responded that the leaseholder decides what types of planes and businesses they choose to accommodate. The master plan in no way dictates what accommodations are to be made on any leasehold.

Mr. Sax stated that this proposal would replace old dilapidated hangar and office space with new larger hangars to accommodate all sizes of aircraft and many more businesses. Behind the five larger G-5 capable hangars, there will be smaller hangars ranging from 70 x 70 to 50 x 50. These small hangars will accommodate multiple small general aviation planes or turbo prop small planes. These smaller hangars will be located on lease 3. Work on lease 3 cannot be considered until there is landfill remediation and delineation. Many businesses will be displaced during this phase of the project so it would be inadvisable to start this phase prior to the completion of the
landfill remediation. The 150’ concession PAC, LLC is making to the County will serve as a temporary home for smaller general aviation planes during lease 3 construction. The 150’ concession will probably not be utilized by the County for a new terminal for anywhere from five to ten years. During this time PAC, LLC can proceed with their lease 3 project.

Mr. Sax stated that completion of phase 1(five hangars) would meet the County’s three year minimum requirement for redevelopment completion. This dollar amount exceeds the bond requirement of $1.3 million; the first phase of the project alone is estimated to exceed $15 million. Mr. Sax also stated that current tenants on the PAC, LLC leasehold will be accommodated.

Mr. Ricotta asked what number of general aviation aircraft would be housed on the leasehold once the project is completed, and exactly how many hangars there would be. Mr. Sax responded by stating that roughly 35 larger hangars will be constructed. The number of general aviation aircraft housed could vary depending on the demand of jet hangar space. PAC, LLC negotiated to sublease landfill impacted land to PAPA for thirty years, this would guarantee that all 53 hangars presently would exist for that same time period. When remediation is necessary cost incurred would fall on PAC, LLC and any accommodations possible would be made for those tie downs displaced during this time. Mr. Sax stated that the number of tie downs estimated for roughly the next ten years will be very close to what exists now. But, upon completion of the entire project there will be less tie down space available on the PAC, LLC leasehold.

Ms. Haslett-Kitchen stated that when plans are ready for phase two they will be presented to PAAC as well.

Ms. Wallar presented PAAC with a letter from PAPA endorsing the PAC, LLC leasehold proposal.

Matt Petersen with the Law Firm of Petersen and Price representing Jetsource addressed the committee. He stated that development plans are not available for viewing. The leasehold has been an item of litigation for several years, and has been a source of contention with the County. Mr. Petersen also stated that Burrows was in breech of contract, and for over nine years nothing was done on the leasehold. Mr. Petersen asked if a request for proposal was prepared, and if so why was it not published. Burrows failed to comply with guidelines set after litigation. Mr. Petersen stated that there is not an incentive for PAC, LLC to complete this project and asked what if PAC, LLC failed to comply once again? Mr. Petersen asked if an environmental review has been completed. Mr. Petersen stated that the PAC, LLC project is problematic to Jetsources plans on their leasehold. Mr. Petersen questioned the accessibility of the east/west taxiway, if PAC, LLC has control over it and does not allow access, Jetsource customers will lose direct access from hangar 1 to the runway. Mr. Petersen stated that Jetsource is currently in litigation in regards to hangar 3, no response has been made by the County as of yet. Mr. Petersen stated concern and
questioned if this project is consistent with the master plan. Mr. Petersen stated that a
development proposal has not been presented, how is it known that the project is
consistent or not? Mr. Petersen stated that a master plan amendment is needed. He
stated that these are just some of the concerns Jetsource has, and it is premature for
this project to proceed. Mr. Petersen requests that Jetsource be allowed to review the
plan before it goes to the Board of Supervisors. Mr. Petersen stated that Jetsource
recommends that PAAC not recommend this project. Mr. Petersen requested that if this
project does go forward, the east/west taxiway be carved out of the leasehold.

Mr. Williams questioned Mr. Petersen in regards to viewing of the proposal plan.
Mr. Petersen stated that several attempts have been made by Jetsource to obtain
access to this proposal, but the County stated that they are not required to give public
notice.

Mr. Hutter questioned access to hangar 1 in regards to Jetsource having access to
the east/west taxiway and the north/south taxiway. But it is unclear if the two will remain
accessible.

Mr. Ricotta asked Mr. Petersen the types of aircraft that will be housed in hangar 1.
Mr. Petersen responded that jets up to the size of a Citation X with the maximum
wingspan of roughly 61'.

Ms. Finnila asked why a request for proposal was not published. Ms. Wallar responded
that County Council worked extensively with the proposal as well, and County Council
feels that all legal requirements of the settlement were met and the proceedings have
been very prudent and compliant. Ms. Finnila asked if there was a requirement in the
lease for PAC, LLC to complete remediation of landfill impacted areas on their
leasehold. Ms. Wallar responded that there is no requirement from the County for
remediation, this idea was actually proposed by PAC, LLC. Though it is a very technical
and expensive proposition the County is interested because it would bring
more land to the airport allowing for more development at a higher level. Landfill
remediation is not required of any leaseholder, but it would be in the best interest of the
County and airport users.

Ms. Finnila asked if a decision was made concerning an environmental impact report
requirement. Ms. Wallar responded that County Council and the FAA both indicated
that it is in compliance with the master plan. The master plan includes an EIR, and
therefore there is no need for any additional environmental study for this project.

Ms. Wallar stated that an RFP was not issued because the project was planned in
conjunction with PAC, LLC, PAPA, County staff, and the FAA. The County believed
that there was no need to put an RFP forward because everyone involved agreed that
that the proposal was best for the County. Mr. Gates stated that there was not a
competitive proposal, a decision was made to negotiate with PAC, LLC.
Ms. Wallar stated that the east/west taxiway is completely within the existing leasehold, as is the north/south taxiway. Mr. Jenkins indicated earlier this was a concern for the County and have proactively addressed the situation. The County by obtaining 150’ from the PAC, LLC leasehold, makes the north/south taxiway under County control. Ms. Wallar stated that access to the north/south taxiway as it is now will continue to remain at least that much. There is no intent to put additional tie downs or aircraft on the north/south taxiway, at some point in the future it will be lined to accommodate even larger jets.

Mr. Ricotta asked if the County addressed the sinking problems with Jetsource hangar 3? Ms. Wallar confirmed that it is in fact in litigation and she must refrain from commenting.

Mr. Jenkins stated that relocation of the hangar 3 as proposed by Jetsource would not be possible because their planned relocation is on the PAC, LLC leasehold.

Mr. Lyttleton stated that access to the north/south taxiway was unclear to him. A Jetsource attorney stated that the north/south taxiway is accessed quite often by Jetsource customers, traveling between hangar 1 and the main Jetsource hangar. The attorney stated concerns should the main taxiway become the only means of travel.

Mr. Lyttleton asked if the proposed new taxiway with the additional 150’ would be used by the commuters, and become a secured area, blocking access to regional jets. Mr. Jenkins stated that the north/south taxiway addition would be on the airside. The current dilemma is the island of businesses that exist. At this time pedestrians only access is crossing the north/south taxiway. Mr. Lyttleton questioned the possible future impact of regional jet traffic on Jetsource hangar 1 traffic. Mr. Jenkins stated that there should not be a problem, neither PAC, LLC nor the airport has any intention of denying Jetsource access to hangar 1.

The attorney for Jetsource stated that access via the main taxiway would require checking in with the tower, should the tower be closed safety issues would arise. Jetsource traffic between hangar 1 and the main hangar is very high. It would be very inefficient for Jetsource and take more time and man power, it is not an appropriate way to deal with the issue.

Mr. Sax stated that the east/west taxiway is currently and for many years on the Burrows/PAC, LLC leasehold. Pac, LLC has never blocked this taxiway and prevented Jetsource from accessing this hangar. PAC, LLC plans to make some of that area general aviation and a large percentage of it parking. Mr. Sax stated that the taxiway would not be blocked. Ultimately the corner radius would be larger than it is now accommodating aircraft with a wingspan larger than the hangar could house. Jetsource will not be denied access now or in the future. Mr. Sax stated that unless and until there is a large enough access for any aircraft that which is to come in, which right now is in existence there will not be a blocking of the east/west taxiway. Large aircraft could not come through here, there will be a 150’ taxiway with a 120’ radius at
the corner. This is far more than any FAA safety requirement would dictate for access into this hangar.

Mr. Sax spoke of the settlement between Ken Burrows and Burrows Southcoast with the County of San Diego. Burrows agreed to hold off on a thirty-year development plan until the County was able to reconfigure plans in regards to the airport and properties. Once this was accomplished, Burrows was able to move forward and implement their existing thirty-year plan. The time lapsed was due to the County having to figure out exactly what accommodations would be needed for growth. A letter resembling an RFP which included the development criteria for the property was signed. The only understanding was that if this offer were declined it would then go to the public as an RFP. This project has not ever by contract or implication required remediation. Mr. Sax stated that Jetsource via Mr. Petersen was invited to join Burrows in the remediation of the landfill impacted land. That invitation was declined. Once again the offer is reiterated to join Burrows in the remediation.

Mr. Ricotta asked if a clause existed stating that the lease would increase or stay static. Mr. Sax responded that the lease would increase, and involve a considerable risk. Mr. Ricotta stated that it appeared to be a sweetheart deal. Mr. Sax stated that the rate being paid is the standard rate for all leaseholders on the airport. Mr. Ricotta questioned Mr. Sax as to remediation liability, which Mr. Sax declined to comment on. Mr. Sax stated the PAC, LLC has offered to remediate the landfill impacted area of their leasehold in order to use the land.

Mr. Hutter stated that the lease has to address liability issues, in regards to pollution on the landfill. He questioned who assumed liability. Ms. Wallar stated that she would not address liability, but the County is responsible for ground water from the landfill, and County owned property, County managed property remediation, as needed. The County will work with leaseholders to remediate. Mr. Hutter asked if the only legal obligation PAC, LLC has is to develop the five corporate hangars. Ms. Haslett-Kitchen stated the only capital investment requirement PAC, LLC has is on leases one and two, because they are the only non-landfill impacted areas. Leases three, four and five are all landfill-impacted areas, and there is not a minimum capital investment requirement for landfill-impacted areas. The capital investment requirement for lease 1, the fuel island has been met. The proposal PAC, LLC has for lease 2 far exceeds the County’s minimum capital investment requirement. The County wide minimum capital investment requirement for airport development is $5,000.00 per acre per year of lease. The rent PAC, LLC pays has not been implemented by anyone else, this is because it is only implemented when an amendment is added or during negotiations. Ms. Haslett-Kitchen stated that because lease 2 and 3 would have rent deferred during development, in 2006 the new lease rate would be negotiated. This would be to recoup fees lost for those two years.

Mr. Lyttleton asked if PAC, LLC is required to build the five hangars, or just meet the required dollar redevelopment obligation. Ms. Haslett-Kitchen stated that the County does not dictate specific development to any leaseholder. She also stated that
development plans are costly, and are usually not prepared until the County Board of Supervisors approves the lease. Once these development plans are available they would be presented to PAAC.

Mr. Williams asked if the settlement agreement was a public document. Mr. Sax stated that it was a sealed document but it has become a quasi-public document. Mr. Williams stated that the only real objection is by Jetsource. Mr. Williams asked why the two could not amicably settle the problem.

Ms. Finnila closed public hearing. Ms. Finnila requested that lease 1 be voted on separately from leases 2, 3, 4, and 5 due to a PAAC member having monetary interest. Mr. Ricotta disagreed. Ms. Finnila called for a bifurcation of the leases to be voted on. There is one to oppose and six to approve. There will be a bifurcation.

Mr. Sax stated that there are two tanks on the fuel island. One tank is 15,000 gallons for jet fuel and the other 12,500 for avgas. There is not an increase requested.

Mr. Ricotta asked if more fuel tanks could be placed on the fuel island. Mr. Sax stated that more fuel tanks could be placed, but that would be if the County favors more fuel on the airport and there is a demand. There are no current plans to do so as of yet, there is sufficient capacity currently.

The vote for approval of lease 1 was one to oppose and six to approve.

Mr. Ricotta stated that this is premature and should have gone to the public as an RFP. Jetsource would be landlocked, and there should be some negotiation in regards to their hangar being settled, possibly with relocation. This proposal would interfere with any other production should the landfill be remediated or not. Mr. Bradford agrees that Jetsource should be settled prior to approval of the PAC, LLC lease. Mr. Ricotta stated that the east/west taxiway was public domain in 1959 when the airport was built. This proposal would give PAC, LLC more land and incur revenue from property the County is liable for. The compensation would not be an adequate return on the land. Mr. Ricotta feels that the proposal should go back for renegotiation.

Mr. Bradford agrees. Mr. Lyttleton asked if the motion could be tabled, there are a lot of issues on both sides. There are redeeming qualities in the project, but concerns have been expressed. Mr. Ricotta suggested that a study committee be established to allow for an opportunity to look at the proposal to get additional information to satisfy those with concerns.

Ms. Reyes stated that this lease has been in negotiation for several years by the County and other people involved in culminating the lease. Ms. Reyes feels that it would do no good to table the motion, and that the County is remiss by not having a master plan in place in conjunction with this lease. There has been a lot of work involved in the proposal and does not feel that it would be fair to the leaseholder. Mr. Williams stated that this proposal needs to move forward and there is no reason to
Mr. Hutter stated he has serious reservations about several aspects of the proposal. There would be a lot of business displacement, and sees no place for the current tenants in this plan. There is also a lack of integration with the plans for a terminal. Mr. Hutter stated that there would be to many items left open ended.

Mr. Gates stated that he has some of the same concerns as well as noise impact on the community. This proposal favors the larger noisier aircraft. Mr. Gates stated that he has problems with several aspects of the proposal.

Ms. Wallar stated that this leasehold has gone through more scrutiny than any leasehold in the history of the airport. Ms. Wallar stated that a lot work was involved and a lot of information was shared because the County wanted the support of PAAC. Most leaseholds come forward with minimal information in regards to the plans for a leasehold. This proposal was scheduled to go before the County Board of Supervisors November 13, 2002, but postponed in order for PAAC to have an opportunity to hear the proposal again when a quorum was present. County staff delayed presentation to the Board because the recommendation and input of PAAC is important to the County. Ms. Wallar stated that County staff will go forward with its presentation to the Board on December 11, 2002. Ms. Wallar stated that she wanted to have feedback from PAAC in order to incorporate it into the letter to the Board.

Mr. Ricotta asked if PAAC had to vote before the proposal could go to the Board of Supervisors. Ms. Wallar stated that this is an advisory council, and the PAAC vote will be included in the letter as an advisory statement to the Board, but a vote from PAAC is not required in order to move forward to the Board of Supervisors. Mr. Ricotta asked if any airport personnel were privy to this leasehold proposal, which makes no consideration to general aviation. Mr. Ricotta stated that this proposal is totally impractical and only maximizes the revenue of the lessee, not the good of the people, the County, or general aviation.

Ms. Finnila stated that the letter from Mr. Gibbs will be entered into the record. A motion to move forward was made by Mr. Williams, seconded by Mr. Hutter. Mr. Lyttleton asked Mr. Sax if another thirty days to consider the proposal would be too much. Mr. Sax stated that it would be very problematic.

Ms. Reyes asked if in phase 2 the hangars would displace the restaurant and the pilot shop. Mr. Sax said that the restaurant, the pilot shop, fixed base operators and barnstormers would not be displaced. Ms. Reyes asked if PAC, LLC will continue to work closely with the County in order to produce an effective master plan.

Ms. Wallar stated that far more information has been provided. Development plans are not being approved. Ms. Wallar stated that she has aviators that have been a part of this discussion since day one. People like Floyd Best, Rick Jenkins, and others that
have a lot of aviation knowledge have guided the County. The County recognized that PAPA was another consideration, general aviation is a big part of our airport. Ms. Wallar feels strongly she can guarantee that all parties involved will continue to cooperate and continue to try to do what is best for the airport. Ms. Reyes asked if both the County and PAC, LLC agree to cooperate. Ms. Wallar stated that she agrees, but cannot speak for Pac, LLC. Mr. Sax stated that PAC, LLC has worked with Ms. Wallar, Ms. Haslett-Kitchen, Mr. Jenkins and Mr. Best for many years. Ms. Reyes asked if PAC, LLC would be amenable to working with the County should the terminal not be effective in the proposed area, and be willing to change the course of the direction with the master plan. Mr. Sax stated that PAC, LLC always has been and always will be in the future.

Mr. Ricotta asked if there is no guarantee in the proposed lease that PAC, LLC will not build another wall of G-5 hangars on lease 3 if possible after landfill remediation and also if there was anything in the proposed lease that guarantees general aviation on the airport. Mr. Sax stated that for the record, which is being recorded, that everything outside of the front row is going to be in the 50x50, 60x60, or 70x70 class, going to basic customer general aviation, or someone with a larger twin. Mr. Sax states he will make a guarantee right now, that you can hold him to. PAC, LLC has no plans for any other large box hangars, and also guarantees that if it takes the use of the box hangars to accommodate their tenants they will put them in there until they can relocate them. Mr. Ricotta asked if there was any possibility of PAC, LLC and Jetsource getting together and doing a boundary adjustment and letting them have the land to redevelop their project. Mr. Sax stated that for sometime PAC, LLC has been inviting Jetsource to talk to PAC, LLC.

Ms. Finnila called for a vote to move forward in order to vote on the lease. The vote to move forward was six to approve. The motion to vote was made by Ms. Reyes, and seconded by Mr. Williams. The vote for leases 2, 3, 4, and 5 was four oppose and four approve, a tie.

McCLELLAN-PALOMAR AIRPORT REAL PROPERTY ISSUES

Ms. Haslett-Kitchen defers her report in the interest of time.

AIRPORT COMMUNITY RELATIONS ISSUES/PAR 2000 UPDATE

Mr. Couchman stated the annual operations so far are 172,401. This number is down 15,479(9%) compared to 2001. Mr. Couchman reported that there was 4,900 revenue passenger enplanements reported by the air carriers for October 2002, this number is down compared to 2001. Throughput for the month of October was 9,606, total throughput for 2002 so far is 95,088.

There were 45 community concerns for the month of October, which brings the total for the year to 587. Operations went down for the month, but concerns went up.
DIRECTORS’ REPORT

Mr. Jenkins stated that the County is waiting to receive notice to proceed with the Part 150 study from the FAA next week. URS will be present for PAAC’s December meeting. The issue of the contract to reconstruct taxiway ALPHA will be made shortly. Bid opening was today and a contractor was chosen, but the formal announcement has not been made. Actual work will not start until January. Mr. Jenkins stated that he wrote an article for the future issue of PLANENEWS, the article will be about construction projects. Mr. Jenkins encourages all fixed base operators and those interested in flying communicate to the airport manager to make sure that your needs are accommodated. Mr. Jenkins stated that Mr. Best and all County staff will do their best to ensure that there is the least amount of impact on airport users as possible.

REGIONAL AIRPORT AUTHORITY

No report given.

TRAFFIC LIGHT TURN POCKET

A report from the Carlsbad City engineer was given by Ms. Finnila. The situation was studied and the staff does not recommend any modification of the traffic signal.

STAFF REPORT

Mr. Griffiths stated that the commuter terminal reconfiguration to accommodate the TSA staff and screening equipment, in concert with the airlines is now complete.

SET AGENDA FOR MEETING ON DECEMBER 19, 2002

The Carlsbad Chamber of Commerce Taskforce requested their report to be put on the December agenda. The Fallbrook Airport Advisory Committee also requests to be put on the agenda so that PAAC can decide whether to take action or not on an item.

ADJOURN

Meeting was adjourned at 9:40 p.m.

_________________________________________ Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:05 p.m. on December 19, 2002, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Ramona Finnila, Chairperson
Thomas Ricotta, Vice Chairperson
Bill Bradford
Tim Hutter
Hugh Lyttelton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Warren Deem
Robert Gates
Brad Lunn

Members present did represent a quorum.

COUNTY STAFF PRESENT
Sherry Miller
Floyd Best
Roger Griffiths
Russ Couchman
Dee Dee Phillips
Tim Caulder
John Christensen

ROLL CALL AND INTRODUCTIONS
Ms. Finnila inquired about Mr. Deem. Ms. Finnila requested that Mr. Best contact Mr. Deem. Mr. Best stated that he would be in contact with Mr. Deem during the holidays.
APPROVAL OF MINUTES

The November 2002 Minutes were approved with one correction. Page eleven, fifth line, Mr. Ricotta was substituted for Mr. Bradford, secretaries error.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

AIRPORT COMMUNITY RELATIONS ISSUES

Russ Couchman, Airport Environmental Noise Specialist, reported there were 16,279 operations in November. Total operations for the year to date is 204,289. Mr. Couchman reported there were 4,712 revenue passenger enplanements reported by the air carriers for November 2002. Throughput for the month of November was 9,213, total throughput for 2002 so far is 104,301. VFR operations were 12,338 in November while IFR operations totaled 3,941 in November. There were 83 community concerns for the month of November, which brings the total for the year to 616.

Mr. Best stated that Russ Couchman has resigned to accept a position in Wisconsin at General Mitchell International Airport. It is a great loss for the airport. Mr. Couchman thanked all members present. Mr. Wayne Thomas will handle noise concerns until the Environmental Noise Specialist position is filled.

CITY COUNCIL REPORT

No report given.

CARLSBAD CHAMBER OF COMMERCE TASKFORCE REPORT

Mr. Larry Galarza 2210 Palomar Airport Road /member of the Airport Taskforce presented results from an electronic mail survey of Carlsbad Chamber members in regards to McClellan-Palomar Airport usage. 350 members responded to the survey, results obtained will be used by airport service providers to assist in marketing efforts. The survey has potential to assist the County of San Diego as well in planning future improvements and services.

PART 150 PRESENTATION BY URS

Mr. Best introduced members of the URS team working on the Part 150 study. Mr. Jeff Fuller is the project manager and Joe Czech is the project engineer. Mr. Fuller stated that the authorization to proceed was received from the FAA. Mr. Fuller introduced the project team for the Part 150 study. He stated that URS is the prime consultant on the project; it is their responsibility to produce an entire detailed study. The study will include quality core control, noise exposure maps, and the noise
Mr. Fuller stated that Deborah Murphy will be the project director, and will be attending the future PAAC meetings. A detailed public outreach program for the study update will be coordinated by Katz and Associates. Patricia Tennyson will be the project manager for Katz and Associates.

Mr. Fuller stated that the two major components of the Part 150 study are the Noise exposure maps and the noise compatibility program, as well as substantial public involvement. Once the components are developed they are then presented to the FAA for review and approval. The goal of the study will be to facilitate the best possible relationship between the airport and the surrounding communities, by reducing the impact from aviation noise and achieving a land use compatibility through corrective and preventive mitigation measures.

Mr. Czech stated a functional list of tasks not listed in a scheduled chronological order. They are: to identify and notify the interested parties; develop noise exposure maps; and the noise compatibility program. During these tasks the public will be involved, as well as the preparation of the Part 150 documents. Some of the interested parties will include: the FAA; PAAC; CA. Dept. of Aeronautics; F.B.O.’s; residential and business community representatives. Letters will be sent out in January to all of the interested parties involved.

The development of the noise exposure maps is the most technical component of the study. This includes compiling existing flight and run up operations data from the airport, types of operations-departure/arrival patterns, flight tracks, time of day, and runway utilization. Five and ten year forecasts will be developed for the project. Possibilities of increased night operations and/or fleet mix changes could be considered if they are in the forecast. The non-flat terrain around the airport will be incorporated into the noise model. The community noise equivalent level(cnel) contours will be computed with the FAA’s integrated noise model(INM). Contours for both the existing conditions and the abated/unabated cases will be developed.

The noise compatibility program per the Part 150 regulations and the Advisory Circular 150/5020 will be developed. Operational noise abatement measures will be reviewed, as well as existing procedures in hopes of identifying possible alternatives. Land use mitigation measures, both corrective/preventive, will be utilized. Program management measures in regards to the noise monitoring systems, staffing requirements and public involvement will be considered as well. The goal of the Part 150 study will be to demonstrate the noise benefit of the measures, hopefully numerically. The PAR 2000 will be extremely useful to the study.

Mr. Fuller spoke of public involvement in regards to the study. Three public meetings are planned. Monthly status updates will be prepared for PAAC. Information materials will be available for the public and public comment will be welcomed.

Five drafts will be generated. Version one will be submitted to PAAC for review. Version two will be a preliminary FAA review with PAAC recommendations considered.
Version three will be the public/County draft with recommendations from both PAAC and the FAA considered. Version four will once again be submitted to the FAA for formal review (180 day comment period). The fifth version will be the final version of the Part 150 study.

Mr. Williams inquired as to the type of materials distributed to the public. Mr. Fuller responded that public materials will include information on the process, and regulatory environment information as it pertains to both the Part 150 process and airport noise issues. Definitions and maps explaining the noise compatibility program will also be included.

Mr. Fuller clarified that the five versions of the Part 150 study will be progressive. Each incorporating recommendations from the prior version.

Mr. Hutter asked as to whom specifically would be involved in the noise compatibility process. Mr. Fuller responded that general public meetings would be announced for the public to attend, and everyone on the airport will be encouraged to participate.

Mr. Fuller stated that the schedule presented is strictly an example; the timeline is basically a one-year period with a six-month review by the FAA.

Mr. Fuller stated that both the Regional Airport Authority and the City of Carlsbad city planner as well as several others would be invited to participate in the study.

Mr. Tu of Civic Helicopters 2192 Palomar Airport Road, questioned Mr. Fuller as to the type of reactions and comments expected from the public. Mr. Fuller stated that several reactions are expected and their input will be taken into consideration in regards to the study. Mr. Fuller stated that flight restrictions cannot be arbitrary, the FAA rules and regulations will be strictly adhered to, but if adjustments can be made to flight tracks that would accommodate the community, an effort would be made to do so.

Mr. Best stated that the noise compatibility programs purpose is to find ways the airport and the community can coexist. The FAA oversees the study and funds it as well. A representative is present, Jennifer Middleton. Ms. Middleton stated that this is a voluntary program and the FAA will be available to provide technical information throughout the process and assure adherence to FAA guidelines.

Mr. Best stated that the FAA would put into perspective what actions will be feasible for the airport to put into use. Different departments of the FAA will advise as to the options and other possible solutions to problems.

Mr. Lyttleton asked about land use recommendations. Mr. Best responded that the airport land use commission is the deciding factor for recommendations. The FAA can suggest feasible options, the commission can decide against it, but liability issues will then fall on the land use authority.
Mr. Best stated that the types of aircraft that will utilize the airport and with what frequency will determine the noise contours. The contours can change over time. Several factors can contribute to the change of noise contours, and must be considered.

**McClellan-Palomar Airport Real Property Issues/Civic Helicopters Lease Amendment**

Mr. Tim Caulder stated that this item would be heard by the County Board of Supervisors on January 29th. This is the sixth amendment for Mr. Chin Tu of Civic Helicopters. It will encompass the new rent formula as well as add the storm water clause. This amendment is mandated by the original lease from 1981.

Mr. Hutter asked what exactly is entailed in the storm water clause. Mr. Caulder stated that it reflects the intent of the clean water act, other municipalities and state agencies in the sphere of influence over Palomar Airport. Mr. Best stated that the County handles the storm water issues on the airport. This clause ensures that the tenants comply with the program. If they fail to comply each lessee would have to individually become permitted and pay for all incurred fees.

Ms. Finnila stated that this new federal law is mandatory for residential, commercial and industrial entities. It states that individuals must take responsibility for storm water run off on their own property. It is imposing and can incur fees of a $1,000 per incident. Mr. Best stated that this is mandated by the National Environmental Protection Act (NEPA), and the California Environmental Quality Act (CEQA).

Ms. Reyes asked if the language correlates with the storm water clause that work that Mr. Rosenbaum is currently utilizing. Mr. Caulder stated that this is the same language incorporated in the PAC, LLC lease previously presented to the committee. Mr. Lyttelton asked if there is an anticipated fiscal impact on the lessee. Mr. Best stated that yes; there will be if they are noncompliant with water run off on their lease.

Mr. Ricotta motioned for a vote, and Ms. Reyes seconded. All approve.

**Assembly Bill 2776 Aviation Noise**

Mr. Fedorchak stated that AB2776, chapter 496 is set to be implemented in January of 2004. Mr. Fedorchak stated that the County Board of Supervisors has the power to implement the law prior to its set implementation date. This law states that a potential property buyer must be made aware of an airport in the vicinity, when the property is within the airport influence area. This disclosure statement is to be presented before contracts are signed.

Ms. Finnila stated that the City of Carlsbad requires this notification already, and has for years, unfortunately some sister cities do not. Mr. Best stated that AB 2776 pertains to the development of new property. This law is complimentary to what is stated in the Palomar Comprehensive Land Use Plan and Noise Impact Notification Area.
Mr. Fedorchak is requesting a letter of endorsement from PAAC encouraging the County Board of Supervisors to implement this law immediately.

Mr. Ricotta made a motion to vote on the issue. Mr. Lyttelton seconded. All approve.

**DIRECTOR REPORT**

Ms. Sherry Miller stated that the Ramona Air Traffic Control Tower bids open on January 19th. The sewer line has been installed and the County is waiting on an agreement with the Ramona Water District to connect the sewer line. The Gillespie Field ALP narrative is expected to be complete in February. Fallbrook Airpark now has a fuel tank installed. A phone line will be installed so that fuel can be purchased via credit card.

**REGIONAL AIRPORT AUTHORITY DISCUSSION**

Ms. Miller stated that she attended the first board meeting. The permanent members were seated and sworn in. There was a short agenda. The MOA between the Port Authority and the Regional Airport Authority was voted on. A lengthy closed session was held to discuss four or five legal issues, the closed sessions occur during the middle of the meetings. The meeting schedule was discussed, they will be held the first Thursday of every month at 10AM in the commuter terminal.

**STAFF REPORT**

Mr. Best stated that the contractor for the Taxiway Alpha Project has been selected. The project will not start until the beginning of February, due mostly to the Superbowl and high volume of traffic anticipated. The TSA is fully staffed; modifications have been completed on the screening area for both the passenger and carry on baggage. Equipment for checked baggage screening has been installed. McClellan-Palomar will meet the federal mandate to have the ability to screen passengers, carry on baggage, and checked baggage as well by December 31st.

Mr. Best stated that as air travel increases McClellan-Palomar will be able to accommodate. This will be made possible over time by several different upgrades, to include the PAC, LLC lease, ramp/taxiway improvements, a new and much larger commercial airline terminal, and parking expansion on the lower airport lots.

**SET AGENDA FOR MEETING ON JANUARY 16, 2003**

**ADJOURN**
Meeting was adjourned at 8:50 p.m.

________________________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:05 p.m. on January 20, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Ramona Finnila, Chairperson
Thomas Ricotta, Vice Chairperson
Bill Bradford
Robert Gates
Tim Hutter
Hugh Lyttelton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Warren Deem
Brad Lunn

Members present did represent a quorum.

COUNTY STAFF PRESENT
Rick Jenkins
Floyd Best
Roger Griffiths
Wayne Thomas
Dee Dee Phillips
John Christensen

ROLL CALL AND INTRODUCTIONS
There were no introductions.

APPROVAL OF MINUTES
The December 2003 Minutes were approved with no corrections, Mr. Williams seconded the motion, and all concurred, with one abstention. Minutes carried.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

Ms. Finnila stated that the City of Oceanside has not responded with a replacement for Ms. McCauley’s seat on the PAAC. Ms. Finnila requested that if anyone knows of someone interested in applying that they please contact the Mayor of the City of Oceanside.

Ms. Finnila stated that the Carlsbad water reclamation plant will be located next to the Encina Power Plant. Ms. Finnila stated that funding for the reclamation plant came from several different sources, including the federal government, the state government through the Water Resources Board and local contributions as well.

Ms. Finnila stated that Agua Hedionda Lagoons’ caulerpa report has been reviewed. The biologist’s reported that the lagoon has been cleaned out and the entire lagoon is free of the caulerpa algae. The lagoon will continue to be monitored.

Ms. Finnila stated that the City of Carlsbad is proceeding with the continuing construction of five roads.

Ms. Finnila stated that plans for the Farmers Insurance Building on El Camino Real are being considered. The City of Carlsbad would like a new Civic Center but there are several different possibilities. A conference scheduled for March will be held to discuss all proposed ideas.

Ms. Finnila stated that “Alga Norte Park”, has been approved. The City of Carlsbad hopes to someday transition the park into an aquatic complex.

Ms. Finnila stated that the budget cuts will hurt many cities. The City of Carlsbad will not be immediately affected by this, but some projects may be phased out until a later date.

AIRPORT COMMUNITY RELATIONS REPORT

Mr. Best stated that Russ Couchman arrived in Wisconsin safely. Wayne Thomas will temporarily assume the Environmental Noise Specialist position. Mr. Thomas reported there were 15,609 operations in December. There were 204,289 operations for the year 2002, which is slightly less than last year. Local operations in December totaled 4,853. VFR operations were 11,613 in December while IFR operations totaled 3,996 in December. There were 29 Noise complaints for December and a total of 645 for the year 2002.
Mr. Thomas reported there were 4,520 revenue passenger enplanements reported by the air carriers for December. Total passenger enplanements for the year 2002 were 55,864.

Mr. Lyttleton asked why callers with multiple noise concerns couldn’t be identified. Mr. Best responded that with recommendation by the Palomar Airport Roundtable 2000 (PAR 2000) the County of San Diego instructed airport administration to log all callers but not identify them. PAR 2000 concluded that reporting multiple call individuals by name was discriminatory.

Mr. Lyttleton asked if the noise concerns were verifiable. Mr. Thomas replied that all concerns are verifiable through research of the noise monitoring system. Staffing shortages have not allowed for this, once the Environmental Noise Officer position is replaced, that data will be readily available.

**PART 150 PRESENTATION BY URS**

Mr. Fuller stated that the information was a status report. The study is still in its planning stage. A detailed schedule of the proceedings will be completed shortly. The PART 150 study is airport specific, therefore must be tailored to McClellan-Palomar Airport. Mr. Fuller expects to have the kick-off letter mailed to all participants within the next week. Several operational lists are necessary in the configuration of the study and will be reviewed. The first public meeting is tentatively set for the week of February 24th at the City of Carlsbad Faraday Offices.

Mr. Fuller stated that flight data from McClellan-Palomar Airport will be the basis of the study, but flight data from both the Federal Aviation Administration and Lindbergh Field will be utilized. A preliminary review of this data has been initiated. Mr. Fuller stated that information materials would also be readily available for participants in the study.

**MCCLELLAN-PALOMAR AIRPORT REAL PROPERTY REPORT**

No Report.

**DIRECTOR’S REPORT**

Mr. Jenkins discussed the budget report. He stated that the Airport Enterprise Fund does not contribute to salaries. The generated revenue of the airports directly supports the staffing and airport costs. The grant funds for capital projects received are federal and state grants. The federal government through the (Federal Aviation Administration) FAA supplies individual airports with funds based on a five-year projection. The focus at this time is security. The FAA funds 90% of Capital Improvement Projects (the state provides 4.5% to non-commercial airports) and the Airport Enterprise Fund undertake the balance. This year the County Board of Supervisors directed that individual Airport Managers complete their proposed budget. The County hopes that this may help citizens understand why their individual airport needs are not met.
Several projects have been completed. Palomar has undergone a lot in the past months, landfill rehabilitation was completed, the Best Management Practices (BMP’s) program implemented is one of the best, the Taxiway Alpha –Rehabilitation project will be getting under way shortly as will the PART 150 study. Upgrades required in the terminal by the Transportation Security Administration were completed on schedule, both passenger and baggage screening has been implemented.

Borrego Valley Airport will soon have a larger apron and run-up area; a design consultant has been selected. Fallbrook Air Park has two potential Fixed Based Operators. The state provided funding to install water lines and things are improving.

An AWOS system has been installed at Gillespie Field and Fleet Week went well. Mr. Jenkins stated that Gillespie Field would soon be finishing up an ALP narrative update. Which is basically a mini-master plan but does not include an Environmental Impact Report. Mr. Jenkins stated that in working with the stakeholders on Gillespie Field, the County was able to accommodate both the general aviation community and industrial renters on the field. The Runway 27 left design is in the finalizing stages, construction will start in the spring, and the Runway 27 right design will be started at the end of January. Ramona runway/taxiway extension clean up is complete. The Control tower construction will be started in February, now that the sewer lines are complete.

The AEF revenues compare the budget with revenue. Federal funding is expected but not yet received. State grants are received only after Federal Grant money. All projects are completed first by the airports, and then reimbursed by the federal government through the FAA. Miscellaneous revenues are received by minor lessees and other small deposit refunds. The AEF is an accounting formula to balance the budget, spending vs. revenue out. Mr. Jenkins briefly discussed expenses and revenue listed in the budget. Comparison of the 2002-2003 Budget to the 2003-2004 Draft Budget is only a preliminary review; the figures will be closer to finalization by March.

Mr. Hutter questioned the estimated amounts for building. Mr. Jenkins and Mr. Best replied that several more considerations must be made concerning items such as the new terminal. Noise, security and storm water issues must all figure into planning, hence increasing design costs. Mr. Hutter also questioned purchase of Lots 29, 30, and 31. Mr. Jenkins explained that all basic business principals must be followed even though the County of San Diego owns both entities.

Mr. Hutter asked if the federal government has any say over the use of the proposed parking structure on Lots 29, 30, and 31. Mr. Best responded that yes they do have a say in the proposed use. The County must finance the actual structure in order to retain the revenue from the parking structure. Mr. Jenkins stated that the status of Lots 29, 30, and 31 is pending the City of Carlsbad’s decision in regards to parking structure categorization.

Mr. Hutter commented on personnel issues and staffing. Mr. Jenkins responded that several factors figure in to staffing changes, and every employer shares them.
REGIONAL AIRPORT AUTHORITY REPORT

Mr. Jenkins stated that a permanent board has been chosen. Mr. Jenkins also stated that there are still twenty-one sites being considered for a new airport.

STAFF REPORT

Mr. Griffiths stated interviews for the Environmental Noise Officer position will be held at the end of the month. He also stated that the City of Carlsbad inspected the airport last week and was very happy with the BMP’s in place at McClellan-Palomar. Mr. Griffiths stated that the first week of February Taxiway-Alpha Rehabilitation should be underway.

Mr. Best stated General Aguilar hoped to attend this PAAC meeting but was rescheduled due to Super Bowl preparations. Mr. Best stated that all security mandates at McClellan-Palomar were met, and the TSA is actively preparing for Super Bowl flight traffic.

SET AGENDA FOR MEETING ON FEBRUARY 20, 2003

MEMBER ANNOUNCEMENTS

Mr. Lyttleton questioned the status of Jetsource Hanger 3; Mr. Best responded that it was still a pending issue.

Ms. Reyes requested that the Carlsbad Chamber of Commerce Airport Taskforce Survey be placed on February’s agenda. Ms. Reyes stated that Mr. Larry Galarza will be invited back as well for questions.

Mr. Hutter requested an update from the City of Carlsbad in regards to Lots 29, 30, and 31.

Mr. Ricotta inquired as to Mr. Deem. Mr. Best stated that Mr. Deem is still very interested in airport activity.

Ms. Finnila stated that in November she submitted a letter to the Governor on behalf of PAAC in regards to obtaining an operating branch of the U.S. Customs/Customs on Request here on McClellan-Palomar. She has not received a response and will submit the letter again.

Ms. Finnila stated that Sunday January 19, 2003 at 1pm Tom Harnish will be holding a free demonstration at the Barnstorming Hangar. It will be an educational presentation of flight, the planet and the universe.

ADJOURN
Meeting was adjourned at 8:15 p.m.

_______________________________  Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:02 p.m. on February 20, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Ramona Finnila, Chairperson
Thomas Ricotta, Vice Chairperson
Bill Bradford
Robert Gates
Tim Hutter
Hugh Lyttelton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Warren Deem
Brad Lunn

Members present did represent a quorum.

COUNTY STAFF PRESENT
Rick Jenkins
Floyd Best
Roger Griffiths
Wayne Thomas
Dee Dee Phillips
Sherry Miller
John Christensen

ROLL CALL AND INTRODUCTIONS

There were no introductions.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT
Ms. Finnila stated that the ground breaking for the Bressi Ranch Project took place earlier in the day. The project is located on the South/East corner of El Camino Real and Palomar Airport road. The project is to include planned industrial, residential and commercial space, as well as a church, and hopefully a school.

Ms. Finnila stated that Mr. Simon the Palomar Airport volunteer Tour Director has taken ill. He is currently staying at the Sunrise Retirement Center. Visits are welcome.

**AIRPORT COMMUNITY RELATIONS REPORT**

Mr. Thomas reported there were 17,066 operations in January. The annual count is the same due to the start of the new year. Local operations in January totaled 5,991. VFR operations were 13,012 in January while IFR operations totaled 4,054 in January. There were 29 Noise complaints for January and a total of 29 for the year.

Mr. Thomas reported there were 3,621 revenue passenger enplanements reported by the air carriers for January. This number is slightly down from 2002, and is the third year in a row numbers has fallen. Total passenger enplanements for the year 2003 are the same.

Ms. Reyes asked if the multiple caller complaints received regarding noise are all for the same incident, or for several different incidents. Mr. Thomas stated that most callers call and complain about the same type of noise problems, be it helicopters or jets.

Mr. Hutter asked why there has not been an increase of passenger enplanements since 09/11/02. Mr. Best stated that several factors contribute to the number of passenger enplanements. Some passengers still harbor a fear of flying, some are hesitant to have to deal with the increased security measures because of time and convenience, and the airlines themselves are going through a reorganization.

**APPROVAL OF MINUTES**

The January 2003 Minutes were approved with no corrections, Mr. Ricotta seconded the motion, and all concurred. Minutes carried.

**PART 150 PRESENTATION BY URS**

Mr. Fuller stated that the first public meeting has been scheduled for Thursday, March 27, 2003. It will be held at the City of Carlsbad Faraday offices. Mr. Fuller stated that the project schedule has been completed. It will be a twenty-one month process starting in January, through completion. There will be fifteen months of analysis and six months of required review time designated to the FAA. The Part 150 study consists of noise exposure maps and a noise compatibility plan. At this time the project is in the data collection phase, and base maps are being generated, this phase should be completed by the second week in May. Forecasts will then be sent to the FAA for a thirty-day review. The forecasts are of aircraft operations in both the five and ten year
periods. Mr. Fuller hopes that the FAA review should be complete by the second week in June, and then the noise exposure maps can be developed. The analysis of potential noise impacts should be completed by the third week in July. The noise exposure maps will then be sent to the FAA for review. The second public meeting is tentatively scheduled for August 28th, 2003. The purpose of the second meeting will be to present to the public the noise exposure maps and get their input. The noise compatibility plan is developed throughout the entire process. The first draft of the Part 150 study is set to be presented to the PAAC for review the second week in September. The third public hearing will not take place until the third draft of the document is ready for public review, which will be sometime in February 2004. The fourth draft of the document is scheduled to go to the FAA for the six-month review sometime in March 2004. When the document is reviewed, any necessary revisions recommended by the FAA will be addressed, and then the final document will be submitted to the FAA.

Mr. Fuller stated that there would be three noise exposure maps generated, the current one, one for the five-year projection and one for the ten-year projection. Mr. Best stated that the previous Part 150 Study did include both the five and ten year projection maps as well. They were both extremely close to the projections.

Ms. Finnila asked if the PAAC meeting should be included with the Part 150 study public meeting. Mr. Hutter suggested combining the two meetings and having a start time of 6PM or 6:30PM. Mr. Ricotta and Ms. Reyes both agreed that it would not be a good idea to combine both meetings. Ms. Finnila stated that she agreed and that the meetings will be held separately and that the Part 150 Study meeting should start at 7PM.

Mr. Fuller stated that public notifications would be sent out starting next week. This meeting will be more of a workshop defining the Part 150 Study and informing the public of the projected schedule.

MCCLELLAN-PALOMAR AIRPORT REAL PROPERTY REPORT

Mr. Jenkins stated that the Civic Helicopter Lease Amendment presented last month to the PAAC members is set to go before the Board of Supervisors next week. Next month a lease amendment for SCIF and a potential restaurant lease with PAC, LLC. will be presented to the PAAC for consideration prior to going to the Board of Supervisors.

Mr. Jenkins stated that a resolution has been reached in regards to the storm water clauses in all lease holder contracts.

Mr. Lyttelton asked Mr. Jenkins if there was an update available on the County of San Diego and Jetsource issue. Mr. Jenkins responded that some progress has been made, but little information is available to release because of legal issues.

CITY OF CARLSBAD CHAMBER OF COMMERCE AIRPORT SURVEY TASK FORCE
Mr. Hutter stated that he was willing to address questions in regards to the Survey. If there were not any questions, he would hope to get the Survey and the letter from Larry Galarza regarding AB2776 forwarded to the County Board of Supervisors. Ms. Reyes asked Mr. Hutter if the Chamber would consider e-mailing notification of the Part 150 Study to its members. Mr. Hutter stated that he would look into that option.

Ms. Finnila stated that she was not able to get a representative from the City of Carlsbad to speak in regards to Lots 29, 30, and 31, but she will keep trying.

Mr. Gates stated that question number eight was bias, lead one to an answer, and was not a factual statement. Mr. Gates feels that it is not accurate to state that every homeowner buying a used home is notified of airport presence. Mr. Best stated that a notification is required by the five cities surrounding the airport established through the Comprehensive Land Use Plan. Notification is required of every homeowner buying a new home after April 04, 1994. This notification is recorded to deed to run in perpetuity with the property. A used home initially sold after April 04, 1994 does require that a homeowner selling that home must notify a potential buyer of the notification. Mr. Gates stated that there may be a requirement, but it does not always happen. Mr. Best stated that the agreement may have been incorporated into CC and R's, and therefore the form would have been signed.

Mr. Hutter responded that the Survey was put together by a committee, and there was some discussion in regards to the question, but a majority of the committee felt that it should be included in the survey. Mr. Hutter stated that this is only one question out of the whole Survey. The Survey as a whole generated valuable results for all involved.

Mr. Hutter would like to have the Survey and cover letter submitted to the Board of Supervisors. Ms. Finnila stated that there are two ways to address this, one, it can be simply forwarded as a citizen initiative, or it can be forwarded with the PAAC endorsement. Mr. Hutter would like the input endorsed by PAAC, to demonstrate that there is tremendous community interest in the airport and that facility enhancement would be greatly beneficial.

Ms. Finnila requested that the item be placed on the March Agenda as a Motion.

**DIRECTOR’S REPORT**

Mr. Jenkins stated that the budget would be done differently this year. Each airport manager will have their own budget, and have its’ own brake down. Sunny Barrett will make a brief presentation at the March PAAC meeting. Last week Mr. Jenkins, Mr. Best, Ms. Miller, and the airport capital project manager met with the FAA. The meeting was fruitful, and more work may be able to be done with the Taxiway Alpha project. The finances were worked out enabling more that can be done, and the FAA reaffirmed their commitment to fund the purchase of Lots 29, 30, and 31.
Mr. Jenkins stated that he appreciated all of the support given to him and the airport by the PAAC. Ms. Miller will be the acting Director until the position is filled.

Ms. Finnila thanked Mr. Jenkins on behalf of the PAAC for his work and style of management. He will be missed.

REGIONAL AIRPORT AUTHORITY REPORT

Ms. Miller stated that the last site meeting was held at Warner Springs last month. The focus right now is with the internal organization and the creation of policy and procedure. The next meeting has yet to be set, usually held on the second Tuesday of the month. The next meeting will probably be in April. Mr. Ricotta asked if there is any indication that Palomar Airport will be cut from the list of possible Regional Airports. Ms. Miller stated that there is no indication as of yet. Mr. Best stated that Palomar Airport is not anywhere near the size necessary to be considered.

TRANSPORTATION SECURITY ADMINISTRATION

Ms. Dores apologized for Gen. Aguilar's inability to be at the meeting due to a conflicting commitment. Effective March 1st, the TSA will be under the jurisdiction of Homeland Security. Homeland Security has retained Admiral Loy as the head of the TSA. The new Under Secretary for the Border and Transportation Security is Asa Hutchinson. Immigration and Naturalization Service, Border Patrol, U.S. Customs, and Animal and Plant Health will now all be under Homeland Security. A Bureau of Customs and Border Protection will also be established. The TSA has been active locally at both McClellan-Palomar and Lindbergh Field. Ms. Dores stated that an increased presence is expected, and inspection and security control of both cargo and general aviation is imminent. Roughly eighteen TSA members are active at McClellan-Palomar.

Ms. Dores briefly spoke of the heightened measures taken during the National Security Period of Code Orange. There is no longer a blanket approach taken with all airports, security will be implemented airport specific.

STAFF REPORT

Mr. Best stated that the solar light poles have been completed, and are up and running along the access road. The Taxi Way Alpha Project is set to start March 11. A pre-construction meeting will take place in order to keep all stake holders abreast of what is going on, and what temporary changes will be in affect in order to keep the airport running smoothly.

Mr. Best stated that Inactive Landfill is also on the airport installing gas monitoring wells. We are working with them closely in order to minimize any disruption.

SET AGENDA FOR MEETING ON MARCH 20, 2003
MEMBER ANNOUNCEMENTS

Mr. Bradford stated that he will not be attending the March PAAC meeting.

Ms. Reyes asked if there was confirmation of dates for the B-17 and B-24 Bomber appearance. Mr. Best stated that it would be in the middle of April. The Collings Foundation will bring them to the airport and the event will be hosted by Western Flight. Ms. Reyes stated that anyone who knows of any school or youth group interested in the event is encouraged to attend. Ms. Finnila stated that she intends to invite several members of the Tuskegee Airmen to the event.

Mr. Hutter asked if there was an update from the City of Oceanside concerning the PAAC seat. Ms. Finnila stated that she had a response that they were no longer interested. Ms. Reyes stated that she knew of several parties interested in coming to sit on the PAAC, mostly active Oceanside Airport members. These parties were going to attempt to pursue it through the supervisory level.

ADJOURN

Meeting was adjourned at 8:07 p.m.

________________________________________

Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:02 p.m. on March 20, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Ramona Finnila, Chairperson
Bob Gates
Tim Hutter
Hugh Lyttelton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Bill Bradford
Warren Deem
Brad Lunn
Thomas Ricotta, Vice Chairperson

Members present did represent a quorum.

COUNTY STAFF PRESENT
Floyd Best
Dee Dee Phillips
Sherry Miller
Sunny Barrett
John Christensen

ROLL CALL AND INTRODUCTIONS
Ms. Finnila stated that Mr. Lunn was not in attendance, and has not been at previous meetings either. Ms. Finnila stated that she will contact Mr. Lunn to find out if he is still interested in being a member, if not she will request a letter of resignation.

TRANSPORTATION SECURITY ADMINISTRATION
Mr. Best introduced Brig. Gen. Michael Aguilar, Retired USMC. Mr. Aguilar is the Transportation Security Administration Federal Director for the San Diego Region.
Mr. Aguilar stated that he oversees Lindbergh Field and Palomar Airport. He regrets not having been able to attend previous meetings. The Deputy Federal Director Kris Dores was quite capable of overseeing Palomar. Mr. Aguilar feels that the TSA employees assigned to Palomar work very well together as a team. Ms. Dores is no longer in the employ of the TSA, and Claude Jones is the Acting Deputy Federal Director. Mr. Aguilar stated that Palomar has met the upgraded security requirements 100%.

Mr. Jones introduced himself, he previously worked for the U.S. Attorneys Office. He has a background in real estate.

Ms. Dores stated that she is presently employed with Unisys, the company that is a provider to Homeland Security.

**PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA**

Ms. Reyes announced the upcoming B-17 and B-24 Bomber Exhibit to be held at Western Flight April 18, 19 and 20. There are also World War II veterans willing to speak about their experiences to youth groups.

**APPROVAL OF MINUTES**

The February 2003 Minutes were approved with no corrections, Ms. Reyes seconded the motion and all concurred. Minutes carried.

**CITY COUNCIL REPORT**

Ms. Finial stated the City of Carlsbad recently held a two and a half-day Futuring Conference. The roll of the city in twenty years was discussed. A video and storyboard will soon be available on the City of Carlsbad web page.

Ms. Finnila briefly spoke on the relationship between terrorism and the drug trade. While in Washington D.C. the Armed Services Committee addressed and acknowledged the issue.

Ms. Finnila stated she went on the Wave. The boat ferry available from the Oceanside Harbor. The fee is $10.00.

**AIRPORT COMMUNITY RELATIONS REPORT**

Mr. Best stated that there would not be a report. The position has not yet been filled and other events on the airport occupied all employees.
PART 150 PRESENTATION BY URS

Mr. Fuller announced that the first public meeting will be held Thursday 032703 at 7PM in the City of Carlsbad Faraday Offices. Roughly 185 notices were sent out. Several newspaper announcements were placed as well. Mr. Fuller stated that data is being collected to develop the forecast. F.B.O.'s will soon be contacted. Ms. Finnila stated that it would be helpful for all PAAC members to attend the meeting. Mr. Fuller stated that there will be a half-hour presentation and an hour and a half for question and answer. Mr. Fuller stated that there will be sign in sheets and notes will be taken.

MCCLELLAN-PALOMAR AIRPORT REAL PROPERTY REPORT

Ms. Barrett stated that she is the program coordinator, manages redevelopment projects, supervises the budget process, and reports to the Airports Director. The budget this year will be broken down by airport. It will be a slow process and a difficult year in terms of budget.

Ms. Miller stated that the Real Property report has been postponed to the month of April.

CITY OF CARLSBAD CHAMBER OF COMMERCE AIRPORT SURVEY TASK FORCE

Ms. Finnila gave a brief review of the types of questions in the survey. Mr. Gates stated his objection to question eight be noted. Mr. Hutter made the motion to forward the survey to the Board of Supervisors, the motion was carried.

REGIONAL AIRPORT AUTHORITY REPORT

Ms. Miller stated that there is no update as of yet. Ms. Miller did attend a meeting held for airport operators. The Airport Land Use Commission duties were discussed. A Comprehensive Land Use Plan (CLUP) will be developed for all airports within the county. Previously the desert airports were not included and did not have a CLUP, they will now be included in the appendix developed for the entire county. The Part 150 study done at Palomar will be very useful in this process.

Ms. Miller stated that it is the duty of the Airport Authority to develop the CLUP. The Authority will have input when changes increasing capacity occur.

DIRECTOR’S REPORT

Ms. Miller introduced Mr. Larry Watt the Deputy Director of Public Works in charge of the Transportation Division. Mr. Watt stated that interviews for the position of Airport Director will occur the week of the 24th.

Mr. Hutter inquired about the Environmental Noise Coordinator position. Mr. Watt stated that the budget is being reviewed, and how the position will be staffed. Next
month after a more detailed budget can be presented there will be a more definitive answer.

**STAFF REPORT**

Mr. Best stated that the storm water issues are a priority right now, in order to minimize the damage caused by the rain. The Taxi Way Alpha Rehab Project is underway. The project is quite broad, and operations will be affected. A run-up area will be constructed as well as additional ramp space. The drainage in the infield will all be replaced with reinforced concrete pipes, which will create a much better storm water flow. New taxiway lights will be the full length of the taxiway, and the taxiway will be widened to the full 50ft it should be.

Security condition Orange has increased vigilance on the airport especially because of all the construction crews working on various projects on the airport, including the inactive landfill staff.

**SET AGENDA FOR MEETING ON APRIL 17, 2003**

Ms. Reyes stated that she will try to get a WW II veteran to come and speak at the next PAAC meeting.

Ms. Finnila stated that she and Ms. Miller are in the process of setting up a meeting to discuss Lots 29, 30, and 31. Results of that meeting, if any will be shared at the next PAAC meeting.

**MEMBER ANNOUNCEMENTS**

Mr. Best will do his best to try and arrange for Mr. Larry Simon to attend the next PAAC meeting.

**ADJOURN**

Meeting was adjourned at 8:08 p.m.

________________________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:12 p.m. on April 17, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Ramona Finnila, Chairperson
Bob Gates
Tim Hutter
Ginna Reyes
Tom Ricotta

MEMBERS ABSENT
Bill Bradford
Warren Deem
Brad Lunn
Hugh Lyttleton
Howard Williams

Members present did represent a quorum.

COUNTY STAFF PRESENT
Floyd Best
Dee Dee Phillips
Sherry Miller
John Christensen

ROLL CALL AND INTRODUCTIONS
There were no introductions.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA
Mr. Zealer, a resident of Golden Hills community in the City of Oceanside, addressed the Palomar Airport Advisory Committee. Mr. Zealer was a member of the Palomar Airport Roundtable 2000, which strongly urged the County of San Diego to create and fill an Environmental Noise Specialist position at Palomar Airport. Mr. Zealer stated that if the County decides to not fill the position, that it would create a foreseeable brake down of communication with the surrounding communities. This would only cause citizens to revert back to a confrontational stance in regards to dealing with airport noise
issues. Mr. Zealer would like the PAAC to once again remind the County administration of the importance of the position in maintaining a good working relationship with the surrounding communities. Mr. Zealer stated that the government invested funding in both the Part 150 Study and noise monitoring equipment. The County has a responsibility to fill the position.

Ms. Finnila responded by stating that interviews for the Director of Airport’s position are currently taking precedence.

Mr. Hutter stated that a billet needs to be created specifically for the position. Currently, Airport Operations Coordinators fill the actual position.

Ms. Finnila requested that a motion be added to the May agenda, for the drafting of a letter to the Board of Supervisors. The letter would ask the Board to consider an increase in salary for the Noise Specialist position.

CITY COUNCIL REPORT

Ms. Finnila stated that Cannon Road will now be open all the way through to El Camino Real.

WORLD WAR II B-17 AND B-24 BOMBER PILOTS

Ms. Reyes introduced both Jack Kellog and Bill Reynard. The two will be present at the airport this weekend along with a B-17 and B-24 World War II plane. Both gentlemen gave an overview of their participation in World War II. They each gave the members of PAAC and its audience a synopsis of what they went through as POW's during the war.

APPROVAL OF MINUTES

Minutes were not approved. A quorum was not met.

PART 150 PRESENTATION BY URS

Mr. Fuller gave a brief update on the study so far. He commented on the public meeting held on the 27th of March. Thirty-five citizens attended and thirty-three questions were addressed. Data for the five and ten year forecast is being collected. Interviews with Fixed Based Operators have been completed. A short delay in receiving data from the FAA will cause a slight change in the Part 150 schedule. The next public meeting is tentatively set for sometime in August, but could possibly be pushed back. The noise contour maps will be presented at that time.

DIRECTOR’S REPORT
Ms. Miller stated that Ms. Barrett will attend the May meeting and present the 2003-2004 Fiscal Budget. A member from the Real Property Division will attend the May meeting to present the SCIF North Leasehold Amendment, the federal agreement for the Automated Surface Observation System, the Jetsource Leasehold Amendment, and the PAC, LLC. Temporary Restaurant Lease.

**SAN DIEGO REGIONAL AIRPORT AUTHORITY**

Ms. Miller has nothing to report. The Authority has not reconvened to address the new airport site. A community meeting will be held on Saturday, March 19, 2003 at 0900 AM hosted by Diane Jacobs. The possibility of the Ramona International Airport will be discussed.

The position of Airport Director will hopefully be filled fairly soon. Olivier Brackett will temporarily fill the Noise position at Palomar.

Ms. Reyes reiterated that the salary for the Noise Specialist position should be reevaluated.

**STAFF REPORT**

Mr. Best stated that the construction on Taxi Way Alpha is well underway. The West End taxiway is closed. The rain did not cause any damage to the project as expected. The ramp and run-up areas on the West End are currently under construction as well. Drainage on the infield is being replaced also. Taxi way lights on the south side of the West End are currently being installed along the full length of the airport.

Security level yellow has been upgraded to orange. A new Security Plan under the TSA guideline 1542 is being drafted.

Mr. Simon visited the airport. He will try to attend the May meeting.

**SET AGENDA FOR MEETING ON MAY 15, 2003**

An item for Action on a letter addressing the Noise Specialist position should be placed on the May agenda.

**ADJOURN**

Meeting was adjourned at 8:17 p.m.

__________________________________________
Ramona Finnila, Chairperson
Co-Chairperson Tom Ricotta called the meeting to order at 7:06 p.m. on May 15, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

**MEMBERS PRESENT**
- Bill Bradford
- Bob Gates
- Tim Hutter
- Tom Ricotta, Co-Chairperson
- Howard Williams

**MEMBERS ABSENT**
- Warren Deem
- Ramona Finnila, Chairperson
- Brad Lunn
- Hugh Lyttleton
- Ginna Reyes

Mr. Gates arrived at 1911.

Members present did not represent a quorum.

**COUNTY STAFF PRESENT**
- Roger Griffiths
- Dee Dee Phillips
- Lidia Sosinsky
- Tim Caulder
- John Christensen

**ROLL CALL AND INTRODUCTIONS**

There were no introductions.

**PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA**

There were no public comments.
CITY COUNCIL REPORT

The City Council Report was not given.

APPROVAL OF MINUTES

Minutes were not approved. A quorum was not met.

PART 150 PRESENTATION BY URS

Mr. Czech gave a brief status report on the Part 150 study. The data acquisition is almost completed. The five and ten year forecasts will be developed next, as will the flight track information. The forecasts should be completed in a month, they will then be sent to the FAA for a thirty-day review. The FAA requested more review time for the draft Noise Exposure maps, instead of thirty, they would need sixty-days to review them. The Noise Exposure maps will then not be available for revisions until mid-October. This delay will push back the next public meeting to November 2003. The original Part 150-study schedule will have a three-month delay. Mr. Fuller will present a revised project schedule in June.

Roughly thirty-seven question/comment forms have been received by URS. Seventy percent of them were positive, while the rest were comprised of either complaints or suggestions.

JETSOURCE LEASE AMENDMENT

Mr. Caulder stated that Jetsource’s two leases will be coming up for amendment purposes. Mandated rent adjustments will be addressed. The County is still in the negotiation process.

WESTERN FLIGHT LEASE AMENDMENT

Mr. Caulder stated that the Western Flight lease is scheduled to expire later this year. The County is currently in negotiations with Western Flight, and there are a number of options available to both parties. When something becomes available, he will present it at that time. The Western Flight lease expires in August.

Mr. Ricotta questioned ownership of assets on a leasehold should the leaseholder choose to vacate. Mr. Caulder responded that traditionally the County would take possession of all assets, but the County has the option to require a lessee to remove them.
NORTH COUNTY ANIMAL SHELTER LEASE AMENDMENT

The North County Animal Shelter will be getting a 32,000sq.ft. two story facility. The FAA approved the plans for the improvement. The facility is on airport property, but not aviation related. Estimated completion is sometime in 2005. Mr. Caulder stated that it is not a leasehold, but rather a Memorandum of Understanding between County departments. All revenue from this property must be put back into the Airport Revenue Fund, per FAA guidelines. The property is roughly three and a half acres.

FAA-ASOS LEASE

Ms. Sosinsky presented the Automated Surface Observation System lease amendment. The U.S. Department of Commerce through the National Oceanic Atmospheric Administration signed a fifteen-year lease. The FAA maintains the ASOS and will now take ownership of the lease located on the north side of the runway by the glide slope antenna. It occupies less than half an acre.

SCIF LEASE AMENDMENT

Ms. Sosinsky presented the SCIF (Magellan Aviation) 2ND lease amendment. This amendment adjusts the rent of the leasehold to the current market value and addresses storm water clauses.

Mr. Ricotta stated that the PAAC could not motion for a vote due to lack of a quorum.

STAFF REPORT

Mr. Griffiths spoke briefly on the Environmental Noise Specialist position. Mr. Brackett will assume some of the Noise Specialist duties, as well as tend to County Airports Safety and Security.

Mr. Griffiths gave a brief update on the Taxiway Alpha project. The far west end will be paved by the end of next week. Once this is completed aircraft operations will resume on the west end. Work will then progress farther down the taxiway.

SET AGENDA FOR MEETING ON JUNE 19, 2003

ADJOURN

Meeting was adjourned at 7:34 p.m.

_______________________________ Tom Ricotta, Co-Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:00 p.m. on June 19, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

Members present did represent a quorum.

COUNTY STAFF PRESENT

Roger Griffiths
Dee Dee Phillips
Sunny Barrett
Lidia Sosinsky
John Christensen

ROLL CALL AND INTRODUCTIONS

Mr. Griffiths introduced Sunny Barrett, County of San Diego Airports Division, Program Coordinator.

APPROVAL OF MINUTES

Minutes for the month of May were approved. Ms. Finnila abstained.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

Gordon Sieler inquired as to if the letter concerning the Environmental Noise Specialist position would be addressed because the item did not appear on the agenda. Mr. Griffiths stated that Mr. Brackett is currently filling the position of Noise Specialist and will be making a presentation at the July meeting. Ms. Finnila reiterated that the Noise Specialist position is currently filled and no further discussion or motions will be necessary. Mr. Griffiths stated that Mr. Brackett’s duties will entail both that of the Noise Specialist and other County related security issues.

PART 150 PRESENTATION BY URS

Mr. Fuller stated that the noise contour maps as well as the five and ten year forecasts will be underway shortly. Eleven more comment forms have been received by URS, they were for the most part favorable. The FAA has requested more time to review data, this has caused the study to fall behind roughly three months, and a revised schedule will be available at the July PAAC meeting. Mr. Seiler questioned the accuracy of the five and ten year forecasts. Mr. Fuller stated that the five and ten year forecasts will be accurate because both 2002 operations data and a FAA approved methodology are utilized in the creation of the forecast. Mr. Fuller stated that the County of San Diego has provided URS with very good detailed data obtained from the noise monitors, and this data will greatly benefit the Part 150 study.

MEMORANDUM OF AGREEMENT FOR GROUND LEASE AND CONSERVATION EASEMENT FOR FARADAY AVE. AND SEWER LINE EXTENSIONS

Item tabled until July PAAC meeting when Ms. Haslett-Kitchen can present the item.

FAA-ASOS LEASE

Ms. Sosinsky presented the Automated Surface Observation System lease amendment. The U.S. Department of Commerce through the National Oceanic Atmospheric Administration signed a fifteen-year lease. The FAA maintains the ASOS and will now take ownership of the lease located on the north side of the runway by the glide slope antenna. It occupies less than half an acre. This item has already been presented to the Board of Supervisors and is for information only.

SCIF LEASE AMENDMENT

Ms. Sosinsky presented the SCIF (Magellan Aviation) 2ND lease amendment. This amendment adjusts the rent of the leasehold to the current market value and addresses storm water clauses. Ms. Sosinsky stated that this item has also already been presented to the Board of Supervisors and is for information only.
Ms. Barrett presented the 2003-2004 Draft Budget. She stated that this year each airport will have its own budget, this will simplify tracking individual airport expenses. This will also allow each airport manager to have more of a decision-making role in how funds are budgeted and spent. Ms. Barrett stated that the administration budget includes costs incurred at all eight airports. The administration budget includes the airport Director, the airport engineer, real property and accounting staff.

Ms. Barrett stated that an Operations Coordinator fills the Noise Specialist position. The position is budgeted solely by Palomar, the duties are not limited to noise and as an Operations Coordinator position provides services to other county airports as well. Mr. Griffiths assured PAAC members that his priority is as Noise Specialist.

Ms. Finnila pointed out that Mr. Best advises the County of San Diego on budget spending, but he does not make the final decisions.

Ms. Barrett stated that in regards to Lots 29, 30, and 31, it is still in negotiations. Mr. Griffiths stated that the liability of the methane gas flame and its regular maintenance is and will be the responsibility of County of San Diego Inactive Landfill. Ms. Finnila stated that the inactive landfill will always be a partial expense for the airport.

**DIRECTOR’S REPORT**

Mr. Griffiths stated that Ms. Miller will be making a presentation to the Regional Airport Authority on Monday in regards to all eight County airports. This information is necessary because the Regional Airport Authority heads the County Airport Land Use Commission.

Mr. Drinkwater will assume the position of Airport Director sometime mid-July.

**STAFF REPORT**

Mr. Griffiths gave a brief overview of the Taxi Way Alpha construction project. Runway 6 will have a run-up area. The project started March 17th and is progressing. It is set to finish July 19th.

Mr. Drinkwater is currently in Maine, and served in the Air Force. Prior experience is with Ontario Airport.

Ms. Barrett stated that the Taxi Way Alpha project was allotted for in the 2002-2003 budget.

**SET AGENDA FOR MEETING ON JULY 17, 2003**
MEMBER ANNOUNCEMENTS

Mr. Hutter requested that the PAAC member make-up be addressed at the July meeting. There have been problems meeting a quorum. Ms. Finnila stated that a letter has been sent to Mr. Lunn requesting his resignation.

ADJOURN

Meeting was adjourned at 8:20 p.m.

Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:07 p.m. on July 17, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

Members present did represent a quorum.

**COUNTY STAFF PRESENT**

Floyd Best  
Roger Griffiths  
Dee Dee Phillips  
Peter Drinkwater  
Darlene Haslett-Kitchen  
Tim Caulder  
John Christensen

**ROLL CALL AND INTRODUCTIONS**

Mr. Best introduced Peter Drinkwater, County of San Diego, Director of Airports.

**APPROVAL OF MINUTES**

Minutes for the months of March, April and June were approved.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

Robert Billmeyer resides at 1566 Maritime Drive in Carlsbad. Mr. Billmeyer is the President of the Cantamar Home Owners Association, the development is located one mile South of the runway. Mr. Billmeyer presented graphics representing 159 jet departures during the hours of Voluntary Noise Abatement over the past three years. Mr. Billmeyer stated that all 159 noise concerns were reported to the noise office.

Mr. Best stated that overall in relation to airport operations spanning three years, the statistics reflect a very good compliance on the part of the pilots. The County of San Diego along with the Transportation Security Administration provides security for the airport. Airports that are a part of the National Transportation System across the nation have not been precluded from operating. McClellan-Palomar has increased its security measures greatly since 091101. Fixed Based Operators (F. B. O’S) and pilot’s operating out of McClellan-Palomar are briefed monthly on both security measures and voluntary noise abatement procedures.

Mr. Frank Milian, Chief Operating Officer of Jetsource stated that security measures are taken not only on the facilities, but on the aircraft themselves as well.

CITY COUNCIL REPORT

State Street redevelopment is currently being considered for ways in which to allow for a better quality of life for the citizens of Carlsbad. Future population growth is being considered as an influence.

A response letter concerning Customs By Request was received from the Governor’s office. The letter stated that McClellan-Palomar is still under review for the service.

PART 150 PRESENTATION BY URS

Mr. Fuller stated the study is moving along. Flight tracks submitted to the FAA have been approved with some minor corrections. The Noise Model is currently underway, as well as existing noise contours. Modifications to the Part 150 Study schedule were necessary. This was due in part to FAA requests for extended review time. Forecasts are expected to go for review by the FAA early in August. Noise exposure maps will be submitted early in December. Public meeting number two is tentatively set for sometime in March 2004. The Noise Compatibility Plan will be completed sometime in April. The first draft of the Part 150 Study is scheduled to be submitted to PAAC for review sometime in May. The preliminary draft of the study will be submitted to the FAA in July. Edits to the draft will be made before releasing the study for public review in December. The draft will be submitted to the FAA for formal review in January. If the FAA finds the document satisfactory, in July 2005 they will provide a record of approval to the public register.
MEMORANDUM OF AGREEMENT FOR GROUND LEASE AND CONSERVATION EASEMENT FOR FARADAY AVE. AND SEWER LINE EXTENSIONS

Ms. Haslett-Kitchen presented the Memorandum of Agreement. Briefly stated the extension of Faraday Avenue and sewer line eastward requires mitigation of sensitive habitat. 108 acres of Airport property east of El Camino Real will meet this mitigation requirement. The developer of the area east of Airport property, Techbilt Companies, will donate a fully developed industrial lot valued at $1.22 million and $730,000 cash to the Airport Enterprise Fund for a long term ground lease for the conservation area valued at $1.95 million. The City of Carlsbad will be granted the conservation easement in perpetuity to comply with the regulatory agency requirements. The FAA is pleased so far with the proposal.

JETSOURCE I AND II LEASE AMENDMENTS

Mr. Caulder presented the final draft of the Board Letter. In summary the letter addressed increased revenue and storm water issues.

Ms. Finnila inquired as to a motion to vote on the item. Vote to approve unanimous.

DIRECTOR’S REPORT

Mr. Drinkwater has nothing to report at this time.

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Griffiths reported monthly operations for June 13,795, bringing the total number year to date 96,154. Air carrier enplanements 4,169. Annual air carrier enplanements 23,309.

Noise concerns for the month of June, 38 calls. The number year to date 150.

STAFF REPORT

Mr. Best briefly spoke of an incident that occurred on the airport over the 4th of July weekend involving a Falcon 50. There were no injuries, the incident is under investigation by the FAA.

America West will be reducing their flights to only one per day. Skywest may be losing one flight per day as well.

SET AGENDA FOR MEETING ON AUGUST 21, 2003

MEMBER ANNOUNCEMENTS

There were no member announcements.
ADJOURN

Meeting was adjourned at 8:26 p.m.

_________________________________________  Ramona Finnila, Chairperson
Vice-Chairperson Tom Ricotta called the meeting to order at 7:05 p.m. on August 21, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Vice-Chairperson Tom Ricotta
Bill Bradford
Bob Gates
Tim Hutter
Hugh Lyttleton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Warren Deem
Chairperson Ramona Finnila

Members present did represent a quorum.

COUNTY STAFF PRESENT
Floyd Best
Olivier Brackett
Dee Dee Phillips
Peter Drinkwater
Lidia Sosinsky
Tim Caulder
John Christensen

ROLL CALL AND INTRODUCTIONS
There were no introductions.

APPROVAL OF MINUTES
Minutes for the month of July were approved.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

The City Council Report was not given.

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Brackett reported monthly operations for July 16,230, bringing the total number year to date 112,384. Air carrier enplanements 4,984. Annual air carrier enplanements year to date 29,538. The monthly air carrier passenger throughput 5,960. The local transient traffic breakdown for the month of July was 4,654, itinerant, 11,576. IFR traffic 5,025 and VFR traffic 11,205.

Noise concerns for the month of July, 59 calls. The number year to date 209. Ratio of concerns to operations for the month of July, 1 call:275 operations. The majority of calls during the month of July were south/west from the airport. Forty-eight of the calls concerned jet operations, one for a helicopter, and four for propeller operations. Five concerns were for unidentifiable aircraft.

Eight concerns were for loud aircraft, and four were for low flying aircraft. The remaining calls were for operations during Voluntary Noise Abatement Procedures hours. Fifteen of the concerns were for operations between 0700-1700. Two concerns for operations between 1700-2200, and forty-two concerns for operations between 2200-0700.

PART 150 PRESENTATION BY URS

Mr. Best presented the Part 150 monthly progress update for URS Corporation. He reported that URS had completed compiling the operational data used to generate the noise contours from the airport’s noise monitoring system, Air Traffic Control Tower records and Fixed Base Operators on the airport. This data will be input into the FAA’s Integrated Noise Model and the first set of contours should be generated in the first week in September. These contours will be the base-line for the five and ten year projections. The data collection process took longer than originally projected due to complications encountered in extracting sub-sets of information from extensive data bases maintained by the airports noise monitoring equipment and an unexpected turn over in airport staff. Additional time and effort was required by a URS engineer working with the manufacturer of the noise monitoring system to extract the required operational data.

A representative from the National Business Aircraft Association(NBAA) inquired about stakeholder participation in the Part 150 study. He stated that in his past experience with other airport Part 150 studies, various groups are involved, and attend multiple
stakeholder meetings. Input from these groups is involved in several aspects of the study. He expressed concern that this might not be the case with Palomar Airport’s Part 150 study.

Mr. Best replied that URS received the Notice to Proceed with the Noise Compatibility Study on January 6th. of this year. On March 3rd. a letter was sent to an extensive list of potential stakeholders advising them that a Part 150 study was being conducted at McClellan-Palomar airport, that a public meeting to explain the process for the study would be held on March 27th. and invited all interested parties to participate in this public process. Mr. Best stated that he was certain that the NBAA was among the parties receiving this notification, but that he would confirm his recollection with URS. It was subsequently confirmed that National Office of the NBAA in Washington D.C. was sent this notification. Mr. Best further stated that aside from the public meeting held in March to advise interested parties about the Part 150 process and their opportunity to participate in the study, the efforts expended by URS thus far in the study have focused on collecting the data that represents the flight activity at the airport for CY 2002. The public input phase of the process as outlined at the first public meeting will begin at the second public meeting, presently scheduled for March 2004. Mr. Drinkwater stated that the Part 150 study is open and public. The impact of flight activity at the airport on the local community and recommendations to minimize that impact within flight safety and regulatory agency mandates, is an integral part of the study. The public and aircraft owners need to be represented in this aspect.

The NBAA representative inquired if the PAR 2000 would be utilized by URS as an integral part of the study or just as information. Mr. Best responded that the entire PAR 2000 report had been provided to URS to document the public and stakeholder concerns over activity at the airport since February 2000. Mr. Best stated that great care was exercised to insure that the public and all stakeholders were represented during the PAR 2000. It is the intent to do the same thing with the Part 150 process; it is part of the specifications upon which the contract is based. The public and stakeholders will have additional opportunity for input at the second and third public meetings.

A homeowner in Carlsbad expressed concern about the way the study was being conducted. He did not participate in the PAR 2000 process or attend the first Part 150 Public Meeting and is unable to obtain any information in the newspapers or from the internet. Mr. Drinkwater stated that the County’s website will be updated to have information, provided by URS, that states the status of the Part 150 study. The website will also include information regarding all Capitol Improvement Projects (CIP) as well. Mr. Drinkwater hopes to be able to use the website to provide more up to date information to the public concerning meeting schedules and project status for all County airports. The homeowner expressed concern over the lack of a noise abatement specialist at the airport. Mr. Best responded that Mr. Brackett, who had just given the community relations report, was the airport’s noise specialist and was actively responding to community concerns regarding airport noise.
Mr. Hutter inquired into the time lag between the first public meeting in March 2003 and the second public meeting in March 2004. Mr. Best referred back to the brief given by URS at the July PAAC meeting regarding extension of the project schedule. The project schedule has been extended from the originally planned 15 months to 32 months. The extension was driven by an FAA requirement for more review and response time at five intervals during the process and more time consumed in extracting the operational data from the noise monitoring system than was originally anticipated. Specifically the following tasks needed to be completed between the first and second public meetings:

1. The data needed to be collected to create the input streams that generate the noise contours that represent the impact of flight activity on the local community over the previous 12 months.
2. Noise Exposure Contours needed to be generated utilizing the FAA’s Integrated Noise Model.
3. Noise Exposure Forcasts needed to be generated for 5 and 10 year projections.
4. FAA review and approval of the 5 and 10 year forecasts.
5. FAA review and approval of Noise Exposure Maps.

The public review process will begin at the next public meeting. This involves review of the noise contours and the impact on the areas surrounding the airport. The public will assist in formulating the suggestions that will go to the FAA for consideration in the noise compatibility process.

Mr. Drinkwater stated that it is still early enough in the Part 150 process to include input from all major stakeholders. There is a good opportunity to make this work well.

**SCIF PALOMAR, LLC (SOUTH) LEASE AMENDMENT** – L. Sosinsky

Ms. Sosinsky presented the lease amendment. Every five years the base monthly rent is adjusted to account for the fair market rent. 11.25 acres, increased by $1,650 will make the new monthly rent $18,562. This is a significant increase of more than $6,000 per month. Over the course of a year will amount to $$74,957. The lease amendment is effective June 1st, the rent will be retroactive. The last increase was in 1998. The storm water clause will also be addresses in the amendment. This is a requirement for all new and amended leases. Mr. Lyttleton called for the motion. Motion passed unanimously.

**WESTERN FLIGHT NEW AVIATION LEASES** – T. Caulder

Mr. Caulder presented the lease amendment. Western Flight’s single lease will be converted to three individual leases. This will allow new improvements to be expedited. The first lease will cover the far western section, which is occupied by buildings. The second lease will include the tie downs, and the third lease will be the fuel farm. Three
separate leases will allow funding to be expedited. The base monthly rent will also be adjusted. These are all thirty-year leases and subject to rent amendments.

Mr. Hutter questioned if each separate lease was based on land use, and if so, how did that affect the rate per acre. Mr. Caulder responded that the difference in rates was due to the limited use of the land over the previously existing landfill. Mr. Caulder agreed that this difference in pricing may be unique to Palomar Airport because of its location over a previously existing landfill.

Mr. Lyttleton called for the motion. Motion passed, Ms. Reyes abstained from voting.

**DIRECTOR’S REPORT**

Mr. Drinkwater stated that he has been reviewing projects and their priorities within the division. The budget is currently operating with little if no reserve. There are still a few capital improvement projects that have yet to be reimbursed, but during the interim there is a gap. Mr. Drinkwater is currently reviewing the internal system of the operations of the airports in regards to staff and management i.e. individual airport, property and financial. The priorities of the division and project priority within the system will be critical as well. An ordered plan will need to be developed, a strategic plan for each airport in a priority order within the airport system. This would be a long-term goal, but there are immediate issues that will need to be addressed in order to not delay progress.

Mr. Hutter questioned Mr. Drinkwater as to how the master plan fits into the larger systemic plan. Mr. Drinkwater stated that worked into master plans is the ability for modifications. Mr. Drinkwater has plans to meet with members from the City of Carlsbad in hopes of understanding their thoughts on the direction of Palomar Airport.

Ms. Reyes asked Mr. Drinkwater as to the affect that the PAC, LLC lease could have on the master plan. Mr. Drinkwater stated that a six month process will be necessary before a plan can be generated that will outline the direction Palomar Airport is moving.

Mr. Ricotta questioned Mr. Drinkwater in regards to employee retention. Mr. Drinkwater stated that several departments are sharing the effects of the budget cutbacks. Mr. Drinkwater stated that he will also review how salary and compensation grades are evaluated.

Mr. Hutter inquired as to how plans from the San Diego Regional Airport Authority(SDRAA) will be integrated. Mr. Best stated that Senille Harmon from the SDRAA spoke to members from the Airport Taskforce earlier in the day. Addressed were the issues of augmenting Lindbergh Field to accommodate the growing airport use, other airports were not discussed. Mr. Drinkwater stated that he has met with a member from SDRAA, but the relationship is limited. The focus of the SDRAA right now is finding a location for a major airport. Mr. Drinkwater stated that there is a dialogue between the County and SDRAA.
Mr. Ricotta questioned Mr. Drinkwater in regards to the PAC, LLC lease. Ms. Reyes stated that PAAC had a tied vote as to endorsing the lease. She stated that a lack of vision on the part of the County and PAC, LLC was to blame.

Mr. Drinkwater stated that funding has come forward for Lots 29, 30, and 31. This too will be discussed with the City of Carlsbad in September.

Jason Daniels, CFI and air craft owner Palomar Airport. He stated that redevelopment approved for the PAC, LLC is a concern. There is little knowledge of what redevelopment will actually take place. No one on the airport in regards to PAC, LLC tenants were consulted. Sixty plus aircraft will be displaced. Mr. Ricotta stated that PAAC has little or no information as well.

The PAC, LLC lease was approved. Mr. Ricotta stated that some sketches were presented but nothing else. He also stated that County Land Use might have detailed information. Mr. Drinkwater stated that a plan has been presented, but it has not been fully agreed upon.

Mr. Drinkwater stated that every effort would be made to solve this issue and to avoid displacing people from a public use facility. Mr. Daniels has concern because there is not a plan available. Mr. Drinkwater stated that the space would be aviation related, it has been approved. Mr. Daniels stated that if necessary he could still attempt to stop the plan. Mr. Daniels feels that his question has still not been answered.

Mr. Drinkwater stated that it is up to Mr. Daniels as to how he intends to proceed.

**STAFF REPORT**

Mr. Best reported that the taxiway improvement has been substantially completed. The taxiway is in use and the lights are up. Survey work needs to be done as well as the painting. The ramp in front of the terminal will be slurry coated. Everyone worked very well together to get the job completed. A fifty foot wide taxiway and run up area for Runway 6 was the final result, as well as extra transient space parking.

Mr. Best stated that [www.san.org](http://www.san.org) is very informative in regards to the SDRAA.

Mr. Best stated that a compass rose would be placed in the center of the run up area on the west end.

**SET AGENDA FOR MEETING ON SEPTEMBER 18, 2003**

**MEMBER ANNOUNCEMENTS**

There were no member announcements.
ADJOURN

Meeting was adjourned at 8:55 p.m.

_______________________________
Tom Ricotta, Co-Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:13 p.m. on September 18, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Chairperson Ramona Finnila
Vice-Chairperson Tom Ricotta
Tim Hutter
Hugh Lyttleton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Bill Bradford
Warren Deem
Bob Gates

Members present did represent a quorum.

COUNTY STAFF PRESENT
Roger Griffiths
Olivier Brackett
Dee Dee Phillips
Peter Drinkwater

ROLL CALL AND INTRODUCTIONS
There were no introductions.

APPROVAL OF MINUTES
Minutes for the month of August were approved. Chairperson Ramona Finnila abstained from voting.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

Ms. Finnila stated that members of the City of Carlsbad met with County of San Diego representatives. Both organizations intend to work in unison on projects concerning the airport. Meetings will continue between the two groups.

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Brackett reported monthly operations for August were 18,333, bringing the total number year to date 130,717. Air carrier enplanements 4,846. Annual air carrier enplanements year to date 34,440. The monthly air carrier passenger throughput 4,446. The local transient traffic breakdown for the month of August was 5,279, itinerant, 13,054. IFR traffic 4,291 and VFR traffic 14,042.

Noise concerns for the month of August, 47 calls. The number year to date 256. Ratio of concerns to operations for the month of August, 1 call;390 operations. The majority of calls during the month of August were south/west from the airport. 49 of the calls concerned jet operations, 2 for a helicopter, and 6 for propeller operations.

7 concerns were for loud aircraft, and 3 were for low flying aircraft. The remaining calls were for operations during Voluntary Noise Abatement Procedures hours. 7 of the concerns were for operations between 0700-1700. The remaining concerns were for operations between 2200-0700.

PART 150 PRESENTATION BY URS

Mr. Fuller stated that the five and ten year forecasts are complete, they have been submitted for review to airport staff. The forecasts will then be sent on to the FAA for a sixty-day review.

The creation of the noise models is the next phase of the study. The noise model is the basis for the noise contour maps. There has been a short delay due to specific military aircraft needing to be profiled because they do not appear in the FAA noise model database.

The Part 150 study project schedule has been revised. The FAA has requested additional time for review and added two more steps to the process causing a several month delay. Loss of an airport staff member integral to the study contributed to the delay. The first public meeting was held March 27th, 2003. The second public meeting will be held at a time and place yet to be determined in March 2004.
Prior to the March public meeting, notices will be sent out to roughly 180 individuals, professional organizations and institutions affected by the study. A press release will be issued as well.

The draft of the Part 150 study is scheduled to be released to the public for review and comment in September 2004. The third public meeting will take place mid-September, allowing for public comment.

The FAA will then receive the revised draft of the Part 150 study for a 180-day review in November 2004. It is estimated that the FAA approval will be issued sometime by June 2005.

Mr. Drinkwater stated that more information concerning the Part 150 study would be presented at upcoming PAAC meetings. This will allow the public more chances to review and comment on the study. Mr. Hutter suggested that the public be notified that the Part 150 study will be addressed at PAAC meetings, and at that time they can take part in the process and voice their concerns. Mr. Brackett added that the County of San Diego web site now has information regarding the study and a link as well to URS.

Joe Czech gave an update presentation on the Part 150 study. The presentation appears on the County web site.

**PAC, LLC. RESTAURANT LEASE**

Mr. Drinkwater stated that he met with members of Palomar Airport Center, LLC. (PAC, LLC.) The design phase of the entire development is underway. The permanent potential site for the restaurant has been identified. It will be in the air carrier parking area immediately next to the fire vehicles. The plan is for a two-story building, roughly 10,000 sq. ft. PAC, LLC will have one year to complete the building from the time of design approval. This proposal allows for a commercial terminal 20,000 sq. ft. to be built adjacent to the PAC, LLC. Building and benefit from preexisting oversized utility connections that will be needed for the restaurant.

Mr. Drinkwater discussed a proposal for general aviation aircraft parking on the northeast side of the airport. This proposal is contingent on acquiring a temporary waiver from the FAA allowing for aircraft parking in this area. The plan will hopefully save many general aviation aircraft from being displaced by the PAC, LLC. Construction project.

A proposal is being drafted for the automobile parking lots, it will be submitted to the City of Carlsbad. The plan is for the parking lots to be a joint effort between the City of Carlsbad and the County of San Diego, both benefiting from the project.

Mr. Drinkwater spoke briefly on the loss of commercial air carrier flights. A study with consultant SH&E will soon be underway to present to the air carriers for alternate destinations.
DIRECTOR’S REPORT

Mr. Drinkwater addressed the proposed budget and presented informational folders outlining all county airports key projects and funding. In addition, he advised that the plan in upcoming months is to present to PAAC a more defined report concerning projects on Palomar Airport and show how they integrate with all other county airports projects and priorities.

STAFF REPORT

The taxiway alpha project is complete. Staff is now working to catch up on regular upkeep of the airport. The ARFF hangar had the roof replaced.

SET AGENDA FOR MEETING ON OCTOBER 16, 2003

Mr. Hutter suggested that the open PAAC positions be addressed.

MEMBER ANNOUNCEMENTS

There were no member announcements.

ADJOURN

Meeting was adjourned at 8:55 p.m.

_______________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:13 p.m. on October 16, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

Members present did not represent a quorum.

COUNTY STAFF PRESENT

Floyd Best
Olivier Brackett
Peter Drinkwater
Roger Griffiths
Leeann Lardy
Dee Dee Phillips

ROLL CALL AND INTRODUCTIONS

There were no introductions. Any motions requiring action will be tabled until the November PAAC meeting.

APPROVAL OF MINUTES

Tabled until the November PAAC meeting for lack of a quorum.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

Glenn Snavely a representative of the North County Chapter of the Experimental Aircraft Association (EAA) gave a brief report. The association has hopes of getting one million children flying in the air by the end of the year.

Ron Cozad a representative of the Carlsbad Airport Association gave a brief statement. The association is concerned about the possible displacement of roughly 125 aircraft on the airport. Their next meeting is planned for Wednesday, October 22, 2003 at Calaveras Park, 2997 Glasgow Drive. Mr. Drinkwater plans to attend.

CITY COUNCIL REPORT

Ms. Finnila informed the committee that the Leo Carrillo Ranch Historical Park is now open. It is located on Carrillo Way next to the elementary school.

PROPOSAL FOR A NEW 30 YEAR LEASE FOR JETSOURCE INC.

Leeann Lardy presented the proposed new lease, which will be presented at the County Board of Supervisors meeting in December. This lease will combine two leases into one new thirty year lease to start 010104 and to run through 123133. The minimum Capitol Improvement standards are $5000.00 per acre per year of extended lease term. Jetsource plans to build a 42,000 sq. ft. hangar, with an estimated cost of 2.5 million. An equity payment has been requested. The base rent appraisal at Palomar airport is $13,046.00 per month. There will be demolition of hangar three, it will be utilized as a Jetsource parking lot. Jetsource will ultimately have access to their “hangar one” via taxiway Charlie.

Frank Milian the Chief Operating Officer of Jetsource gave a brief review of the lease hold plan. A new 41,000 sq. ft. hangar will replace “hangar two”. The law suit has been terminated. The company intends to have “hangar three” down in roughly 90 days. Jetsource has an incentive to early perform on “hangar three” removal as stated in the lease proposal.

Members of the committee present were all pleased with the proposal.

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Brackett reported monthly operations for September were 14,647, bringing the total number year to date 145,364. Air carrier enplanements 4,382. Annual air carrier enplanements year to date 38,786. The monthly air carrier passenger throughput 4,021. The local transient traffic breakdown for the month of September was 4,654, itinerant, 11,132. IFR traffic 4,842 and VFR traffic 9,805.

Noise concerns for the month of September, 74 calls. The number year to date 330. Ratio of concerns to operations for the month of September, 1 call; 198 operations. The
The majority of calls during the month of September were south/west from the airport. 58 of the calls concerned jet operations, 2 for helicopter, 8 for propeller operations, and 6 unknown aircraft type.

18 concerns were for loud aircraft, and 11 were for low flying aircraft. 47 calls were for operations during Voluntary Noise Abatement Procedures hours. 15 of the concerns were for operations between 0700-1700. 51 concerns were for operations between 2200-0700. 8 concerns were for operations between 1700-2200.

PART 150 PRESENTATION BY URS

Mr. Fuller stated that the Preliminary Forecast has been submitted to the FAA for review and approval.

Mr. Czech presented a brief summary of the Preliminary Forecast to the committee. 22 years of past airport activity 1980-2002 was utilized in the forecast. The 1997 Airport Master Plan was reviewed and provided data. Commercial and general aviation activity presented a wide variation of growth. Trend analysis was utilized in determining the rate of growth. Commercial, general aviation (transient/local), and military activity are the components considered in the market share approach to growth rates.

Ms. Finnila suggested that a glossary of terminology be included in the final Part 150 Report.

In response to several suggestions by PAAC, newspaper ads were placed in both the North County Times and the San Diego Union Tribune advertising the meetings. An announcement was also placed on the City of Carlsbad public information channel operated by Adelphia, several flyers were also placed around the airport and at all F.B.O.’s. Staff hopes that this will increase the PAAC attendance by the public.

DIRECTOR’S REPORT

Mr. Drinkwater spoke briefly about the future for Palomar airport. The possibilities are not definitive. There is a comprehensive plan, and the committee as well as the public will continuously be appraised of the progress made. Currently, the FAA is reviewing a plan which allows for roughly 65 temporary tie down spaces on the east end of the airport. The restaurant will be relocated to an area next to the ARFF office.

STAFF REPORT

A staff report was not presented.

SET AGENDA FOR MEETING ON NOVEMBER 20, 2003

MEMBER ANNOUNCEMENTS
There were no member announcements.

**ADJOURN**

Meeting was adjourned at 8:50 p.m.

_________________________________________  Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:05 p.m. on November 20, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Chairperson Ramona Finnila
Vice-Chairperson Tom Ricotta
Bill Bradford
Bob Gates
Tim Hutter
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Warren Deem
Hugh Lyttleton

Members present did represent a quorum.

COUNTY STAFF PRESENT
Sunny Barrett
Floyd Best
Olivier Brackett
Peter Drinkwater
Jeremy Keating
Lee Ann Lardy
Eric Nelson
Dee Dee Phillips
Bill Polick
Wayne Thomas
John Christensen
ROLL CALL AND INTRODUCTIONS

There were no introductions.

APPROVAL OF MINUTES

Mr. Ricotta made a motion to approve minutes for the months of September and October. Ms. Reyes seconded the motion. The minutes were approved. Mr. Bradford and Mr. Gates abstained from voting for both months.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

Ms. Finnila pointed out that there was a supplement about McClellan-Palomar in the San Diego Union Tribune last week.

The new appointments for the PAAC will be an item on the agenda for the Board of Supervisors meeting to be held 120203. The committee is still lacking a representative from the City of San Marcos.

The Carlsbad City Council voted on amending the master plan for sewer and water plans. There will be new construction facilities, new programs and existing facilities will be modified and changed. Although several of the project components are located in the airport influence area and flight activity zone, the airport will not be significantly impacted.

A proposal for joint development of a parking lot on the airport, involving lots 29, 30 and 31, has been submitted to the City of Carlsbad by the County of San Diego. When the City of Carlsbad acts on the proposal, Ms. Finnila will report back to the PAAC.

PALOMAR AIRPORT ADVISORY COMMITTEE RULES OF ADVISORY – T. Bosworth

Mr. Bosworth is a Deputy County Council. There have been several inquiries to his office from airport advisory committees requesting information on rules and responsibilities, as well as certain issues regarding conflict. A presentation is being prepared and will be made to the committees in March 2004. All members of the PAAC are invited to a briefing on the most recent policies and procedures.

Rules governing the airport advisory committees are not only set forth in sections of the government code, but sections of County policy as well. If there are any questions in the meantime, Mr. Bosworth suggests that members contact Mr. Drinkwater.

PART 150 PRESENTATION BY URS
The project manager Mr. Fuller stated that the Preliminary Forecast of aviation activity and other aircraft operation profiles have been submitted to the FAA for review and approval. A response is expected from the FAA within the next thirty days.

Once the forecasts are approved, the noise exposure maps will be developed. After review of the noise exposure maps by the FAA, the second public hearing will be held possibly late February/March 2004. At this time the existing and projected (2008 and 2013) noise exposure maps will be presented. The second public hearing will give the public an opportunity to review and comment on the forecasts.

The Noise Compatibility Plan will be prepared utilizing feedback from both the FAA and the public. Once completed, the public will have a chance to review and comment on the plan.

RESTAURANT LEASE WITH PALOMAR AIRPORT CENTER LLC—L. Lardy

Ms. Lardy presented a request that the Committee approve motion to recommend the County Board of Supervisors approve a 30-year lease with Palomar Airport Center LLC (PAC) for .24 acres of land at McClellan Palomar Airport. As background Ms. Lardy reports that five aviation leases and a Memorandum of Understanding regarding a proposed restaurant lease (MOU) were brought to the Committee in October and November of 2002 and approved by the County Board of Supervisors on December 11, 2002. The MOU stated that PAC and the County would negotiate a rental agreement for a temporary restaurant, to be brought before the Board by April 11, 2003. The MOU further stated that when a site for a new terminal/administration building was identified, PAC would have the first right of refusal for a restaurant in the new terminal. This consideration was given to PAC for its cooperation in the future relocation of the existing restaurant. This was necessary due to safety and security concerns by the Transportation Security Administration (TSA) because the restaurant is currently located inside the security perimeter of the airport.

After further investigation, the County and PAC determined that a temporary restaurant was infeasible due to the high cost and the lack of a temporary location without safety or security.

As reported to the Committee in October, a permanent location for a restaurant has now been selected. The proposed location is east of Jetsource Hangar 1. The two-story building would be approximately 60ft. X 80ft. with 5,000 sq ft. on each story and a 10ft. clearance all the way around. The lot is approximately 95ft. X 110ft., roughly 10,450 sq. ft. equivalent to .24 acres. The term of the proposed lease would be 30 years with an incentive for and additional 1 year 5 months if PAC completes the restaurant in two years with minimum service requirements that limit the disruption of service.

The rent will consist of a minimum base rent of $1,650 per acre based on the current appraised rate for aviation at Palomar with percentage of gross sales. PAC will pay for
all permitting and construction costs, an estimated 1.5 million. PAC will install super size utilities that will be adequate to serve the terminal/administration building that will be constructed adjacent to the restaurant in the future.

PAC plans to operate a restaurant on the second story and sublease the first floor to Barnstorming Adventures.

Richard Sax, managing member of PAC provided additional information on the restaurant. PAC’s plan is to transform the cafe into a full service restaurant and make the airport restaurant a dinner attraction. The restaurant operator intends to offer-catered events, as well as full service catering to both the business and private community. The facility will be over four times as large as the current café and still offer a great view of the planes.

PAC has been in negotiations with Barnstorming Adventures to add an air museum on the first floor.

Mr. Gates inquired how the restaurant ties into the future terminal and if there is a master plan that reflects it. Mr. Best responded that the modular design of the future terminal is conceptual. This concept precedes an update of the master plan.

Mr. Hutter requested clarification on the current lease under consideration. Ms. Lardy stated that the proposed lease was for a 30-year term on .24 acres of property on the airport. The MOU approved by the Board in December 2002 gives PAC first right of refusal for a permanent restaurant in the terminal. Now that a permanent site has been determined the County gave a proposal to PAC. If PAC accepts terms an RFP will not be conducted. This is because the Board granted PAC the first right of refusal when they approved the MOU in December 2002. If PAC declines, the County could then conduct an RFP.

Mr. Hutter stated he interpreted the MOU to include prerequisites that had not been met. Therefore the first right of refusal could not be awarded to PAC. He stated that the MOU does not mention a stand-alone facility on separate leasehold.

Ms. Lardy responded that these goals were not referred to as prerequisites and are currently being worked towards. The MOU also called for a temporary restaurant but in order to move forward with the project in was determined to accept this as an alternate plan. This lease will supersede the MOU. Approval of this lease will allow development to proceed at McClellan-Palomar Airport.

Mr. Sax stated that the restaurant is in response to the public desire for food service. He said PAC will not move ahead if the committee and the Board of Supervisors decide that future study is necessary or a terminal must be in place first but that the existing restaurant must come down before the PAC Leasehold can be developed.
Mr. Hutter stated that the site chosen for the restaurant was not the issue. But, if .24 acres went out for a public RFP, there may be a number of parties interested in bidding for new leasehold to build a restaurant on the airport.

Ms. Finnila reiterated that PAC was awarded the first right of refusal by the court and when PAAC was asked whether a restaurant on the airport was desirable, all members concurred.

Ms. Lardy informed the Committee that the minimum base rent would start February 2004 at the commencement date of the lease. The percentage rent would not go into effect until the restaurant began sales.

Mr. Ricotta inquired as to parking for the restaurant leasehold. Mr. Best stated that Lots 29, 30 and 31 would serve as the primary parking for both the restaurant and the commercial terminal. This concept allows the County to take advantage of the limited aviation useable space inside the airport boundary.

Ms. Reyes inquired if a cost of living adjustment (COLA) would be in place in this lease. Ms. Lardy responded that there would be percentage rent and minimum base rent, every five years the minimum base rent would be reviewed and adjusted.

Ms. Reyes asked what requirements there are regarding time frame and what if any incentives. Ms. Lardy stated that there is a two-year time frame for construction along with a minimum one-month shut down and two-month limited service only requirement in order to qualify for the incentive of extending the term for 1 year and 5 months. Should PAC fail to complete the restaurant within three years, they would be in default and the County would take appropriate action.

Ms. Reyes asked about seating capacity. Mr. Sax responded by stating that the restaurant would be three to four times larger than the current café. Ms. Reyes also inquired if there were guidelines built into the lease. Ms. Lardy stated that staff intends to include guidelines as an exhibit, subject to modification by the Airports Director.

The following members of the public addressed the Committee:

Ron Cozad, stated the concern at hand involves PAC and their grant of right of first refusal after the development of an RFP, but before the RFP is published.

Paul Breed a general aviation pilot. Mr. Breed feels that there is no justification that the lease requirements for the restaurant will be met.

Philip Espinsen feels that the terminal should be the primary emphasis at this point. The restaurant should in fact be the primary lease of the terminal.

Kurt Mihalco, PAPA feels that a public process should be followed with an RFP issued and published by the County.
Ms. Lardy stated that the County Board of Supervisors approved five leases and the restaurant MOU on 121102. County Council was consulted at that time and government code does not require the County go out for an RFP for any lease.

Ms. Lardy stated that the County can not move forward with an airport terminal until an area is located on the airport layout plan, which we are currently in the process of doing. Advance money needs to be put into design before the County can ask the FAA for a grant. Projects at other airports must be considered, Palomar’s terminal may not take precedence over other airport’s safety and security.

Mr. Drinkwater stated that a commercial air study is currently underway, a terminal cannot be designed and built for a market that does not exist commercially. The direction the airport is headed must be determined in terms of what kinds of service it can provide. The restaurant is tied to a bigger development plan. A number of issues are tied together. This is the first step approved by the Board of Supervisors that will move us forward for the modernization of Palomar Airport.

Mr. Gates inquired as to feasibility of alternate restaurant sites. Ms. Lardy stated that because of the limited amount of space there were not very many alternate sites to consider.

Mr. Sax addressed the temporary restaurant site idea. Both Mr. Sax and Mr. Drinkwater concluded that it would not be economically beneficial for the County to relocate a temporary restaurant. The restaurant site was chosen only recently and the MOU, which the Board of Supervisors approved, addresses that issue.

Ms. Reyes asked Mr. Sax what type of assurances PAC has received that the restaurant will be tied to the future terminal. Will PAC be reimbursed if an alternate site for the terminal is utilized?

Mr. Drinkwater stated that the terminal does not have to be tied to the restaurant; it may be desirable to be in the same proximity. If the market does not support a new terminal, a new terminal will not be built. This restaurant will be built as a stand-alone facility that will finance and pay its own way. If there is market demand to support a new terminal, the terminal building will be built in close proximity or connected to the restaurant.

Mr. Hutter asked Mr. Drinkwater if PAC had provided the County with a business plan, market study and financials all specific with this project. Mr. Drinkwater responded in the negative and stated if PAC does not perform in the appropriate time frame, the area will become available for an open RFP.

Ms. Reyes stated that by moving forward with the restaurant PAC may serve as an anchor for future development and may spur such development forward.
Mr. Ricotta concurred with Mr. Hutter and feels that this lease is premature without a master plan. This lease should be up for public bid.

Mr. Williams stated that Palomar competes with other County airports for money. The café is liked, and everyone would like a better one. Mr. Williams called for a motion to approve the PAC lease. Ms. Reyes seconded the motion. The motion passed with a vote of four to three. Mr. Hutter, Mr. Ricotta and Mr. Gates voted against the motion.

**PAC LEASE AMENDMENT FOR PALOMAR AIRPORT CENTER LLC** – L. Lardy

The Committee is requested to approve a motion to recommend the County Board of Supervisors approve lease amendments with Palomar Airport Center, LLC

Ms. Lardy stated that the five existing PAC leases were all approved by the County Board of Supervisors 121102. The amendment currently before PAAC will extend PAC the incentive period for PAC to complete the construction to two years from today. The five existing leases were broken down into:

1. The fuel concession.
2. Non-landfill impacted area of development (i.e. jet hangars and general aviation hangars).
3. Landfill impacted area that is approved for lightweight use.
4. Port-a-ports that are subleased by P.A.P.A.
5. Deeply impacted landfill area approved for parking by the PAC and/or available for temporary housing during landfill remediation.

The amendment allows for PAC to meet the development term should they choose to meet the development incentive in terms of time. The County agreed to this amendment to be fair because the County was somewhat responsible in not being able to help identify a location for the restaurant.

Mr. Ricotta inquired if any trade off of land was given to the County by PAC. Mr. Drinkwater responded that minimal consideration was given to this idea, but the amount of land that would be given to the County would not be placed well for any practical use by the County and would possibly complicate other parts of future developments.

Mr. Drinkwater stated that the County of San Diego wants PAC to get on with their development. The County intends to move out of the way with obstacles that have been stopping the development, the restaurant location being the most notable one. The County wants Mr. Sax and his investors to perform and have the market dictate how well the development succeeds. Mr. Drinkwater further stated that this is the free market economy and the same market that the rest of the airports and their leaseholders enjoy.

Mr. Hutter responded by asking Mr. Drinkwater why the County chose not to put the lease out for an RFP to maximize the market potential? Mr. Drinkwater responded by
stating that the County Board of Supervisors dictated the terms, the County is simply complying with those original agreed terms.

Ms. Lardy stated that PAC returned to the County approximately 1.17 acres adjacent to the center of Palomar Airport for commercial services and the terminal providing a needed taxiway and maneuver area to adequately accommodate current as well as future airport needs. This additional area to the taxiway would then eventually become eligible for FAA grants as a 150-ft. taxiway.

Ms. Finnila stated that she and Supervisor Horn have received a great deal of letters from the public. Two issues appear to be circulating:

1. The fear that general aviation will be taken away somehow as a basic use for this airport.
2. The amendment at hand for the five existing leases, strictly refers to only extending the incentive time to November 2005, not the validity of the leases.

All letters Ms. Finnila has received will be forwarded to Supervisor Horn and the Board of Supervisors.

Members of the public addresses the Committee:

Ron Cozad spoke briefly of the settlement between the County and Mr. Burrows in 1993.

John Earle requested that clarification be given regarding P.A.P.A. It was clarified that P.A.P.A. would be on the leasehold for 30-years also.

An unidentified citizen addressed the PAAC. Just because a legal process is correct does not mean that it is right. Displacing 180 people to serve a few does not work. As a representative of the public the County has the obligation to fight for what is right.

Kurt Mihalco stated that the majority of the attendees are interested in commenting after the proposal by Mr. Sax

Mr. Sax explained the basis of the lease amendment saying the leases did not start until after the Board approved them. By giving PAC 24 months from now, two months are still lost.

Mr. Ricotta stated that he would like to vote on the motion after hearing the presentation by Mr. Sax. Ms. Finnila stated that the agenda would be followed as always.

Ms. Reyes asked if the extension of time pertained to the full development of the five leases entertained previously, not only the restaurant or phase one. Ms. Reyes stated that she feels that things moved forward previously because of the order in which things were going to happen in.
Ms. Reyes stated that she feels that it is premature to vote on a time frame without knowing what the developments are that are going to happen within that time frame. Mr. Sax stated that the incentive is for accomplishing the front row construction. Construction of the rows of hangars is dependent upon the status of the permitting process and pre-reservation of pre-leasing. PAC hopes that everyone displaced will be taken care of with temporary facilities. Ms. Reyes stated that one reason she could vote positively previously was because of the way the things were structured. The first phase would be built and there would be an attempt to relocate those businesses displaced.

Mr. Sax stated that PAC is working with the County to try to obtain temporary facilities for everyone and to try to place hangar and tie down customers if possible in adjacent areas or on other airports. Mr. Sax stated that there is not room for everyone under this plan but there will be tie downs and general aviation hangars available to the public on the PAC leasehold.

Mr. Williams stated that the issue is the extension. He asked if anyone had an argument as to why it would not be fair to award PAC the extension? Mr. Ricotta responded by stating that this project is not good for the airport and not good for the people. This project is not what the public wants; this airport should stay a general aviation airport for public use.

Mr. Williams made a motion to recommend the proposal for the extended lease amendment, Mr. Bradford seconded. The motion was passed 4/3 in favor. Mr. Ricotta, Mr. Hutter and Mr. Gates opposed.

**PAC PROPOSED PLAN FOR DEVELOPMENT**  – R. Sax

Mr. Sax presented the five leases visually on a diagram. Mr. Sax pointed out the five acres Mr. Ricotta referenced earlier. PAC and the County negotiated that this land remains general aviation, and P.A.P.A would be the subleasee. Redevelopment of PAC will consist of a front row of G5 capable hangars. Fourteen other hangars will immediately follow behind. One row will be dedicated to maintenance and above these hangars will be office space. When complete PAC will have 200,000-sq. ft. of new space net on the airport. 60,000 of which will be office space and a 130,000 of which is new hangar space. There will be a lot more hangar space than has ever been.

Mr. Sax stated if PAC were to build general aviation hangars with the burden of the infrastructure and the cost of development today (i.e. permitting, taxiways and underground utilities etc.) small hangars would be available to rent for somewhere between $2,500 to $3,000 a month. Although it is not a popular notion the general aviation community has access to all of these hangars. The hangars could be shared. These hangars are suitable for small planes; four to six planes can be accommodated. Mr. Sax stated that PAC does not have a final plan because final approval has not yet been given on what will be going into the project. Mr. Sax stated that he welcomes
anyone who can produce a plan that would replace the current hangars and not exceed a $3,000 rental price.

Public comment to the Committee:
Ron Cozad spoke of a letter to the FAA from Mr. Drinkwater that referenced the displacement of roughly 200 tie down locations. He said Palomar Airport faces losing affordable space available to the general aviator and that little notice was given to those being displaced. Mr. Cozad presented a rough draft of a plan he would like to build for general aviation hangars and tie downs at Palomar Airport

Paul Disantis a tenant of PAC, inquired as to what if anything would be happening with the fuel island, and how many tie downs would actually be lost. He also inquired as to what was planned for both the far west and east ends of the airport. Mr. Disantis stated that he would encourage PAC to consider the outdoor tie downs.

Mr. Sax stated that PAC intends to take away some auto parking spaces and turn them into aircraft tie downs. Currently there are 95 tie downs. After development there will be 32. The County is currently working to create 33 tie downs on the west end. Of these 33 hangars, 23 will be new tie downs and 10 will replace the 10 transient tie downs on the present PAC Leasehold. There are roughly 30 remaining that may be displaced and the County is working to find a place for them.

Mr. Best stated the County has submitted a proposal to the FAA to see if additional temporary tie downs can be developed on the east end of the airport in and around the runway protection zone to accommodate small aircraft for a limited period of time until another place is found.

Dave Kline addressed the PAAC. Mr. Kline stated that he does not feel that the tie down displacement is an issue. Mr. Kline feels that jet traffic will be increased dramatically. Pilots currently can expect to wait in line for take off anywhere from 20 minutes to an hour while jet traffic is given priority.

Jason Daniels, requested clarification on a few items. He said there are 141 aircraft tie downs not including the ten spots designated for transient planes. There are also 36 hangars in the area. A total of 171 aircraft not including those planes in front of the maintenance hangars will be affected. PAC will have 32 spots, the County has 23 spots, and ten spots for transient. He said 100 aircraft will be displaced and of those, 36 of them are in hangars in which businesses are located that will not be accommodated as well. He stated that the airport needs to be redeveloped, but requested that it be a fair development.

Kurt Mihalco stated that in relation to the planned development, the smallest of the proposed 19 hangars would work out to roughly $6,800 per month. Four aircraft would have to be jockeyed around, and the monthly rental per plane would be roughly $1,700. Mr. Mihalco would also like PAAC to consider the true economic impact in terms of the users of the space (i.e. businesses, avionics shops, maintenance shops) that depend
on the single engines/light planes to maintain them. If the general aviators go away, there will be no means for these businesses to survive.

Roger Baker stressed that everyone should understand that there is nothing in the proposal before you tonight for small general aviation. The costs associated with this project are far beyond that of the local general aviator. A compromise could be made with PAC that could serve both the large corporate businesses and small general aviation community.

John Earle would like more port-a-ports considered or something that the local general aviator could afford.

Tony De Palola a tenant of PAC stated that the option of using another airport is not always feasible to pilots. Palomar Airport has a precision instrument approach that allows planes to land when otherwise not possible at other airports due to weather.

Eric Ross stated that Palomar Airport cannot afford to lose any spaces for aircraft, there is already a shortage. If hangars are infeasible, tie downs are a possibility. There must be a solution for small aircraft.

An unidentified citizen referenced was Mr. Sax’s statement that the PAC development was a risky venture without a guaranteed market. He pointed out there are guaranteed customers currently in attendance.

Dave Carlton stated that he is in attendance to confirm whether or not those displaced by the PAC will be relocated, and if the existing businesses will have a hope of sustaining their businesses in the future. The existing people displaced should be taken care of first.

Mr. Sax concluded his proposal by stating that he never lied to anyone. All of the airplanes that want to be accommodated on the airport can. PAC is simply trying to do what is commercially feasible.

Mr. Drinkwater stated that there will be 23 tie downs on the west end, not including the ten set aside for transient parking. The request to the FAA is still under consideration. There are 8 airports in the County of San Diego, Fallbrook has shade hangars in construction and are going to be very favorably priced. Ramona has a lot of tie down area and a brand new tower to be opened on December 8th. Gillespie has over 70 acres of land becoming available in 2004. There are other options available within the system.

Ms. Finnila reiterated that this item is information only and there is no action that will be taken. Ms. Finnila stated that the members of the PAAC have fought to keep the airport open. On many an occasion the PAAC was the only thing that stood behind the airport when other organizations fought to beat down the airport. A legitimate process has been in place for dealing with the airport. It has only been recently that some have
decided that the process is not working because they have not been a part of it. Everyone has always been welcome to participate in the process; the PAAC is doing all they can to keep general aviation available at Palomar.

Mr. Sax stated that if the association can underwrite a portion of the project in a way that is commercially viable that an underwriter and a banker will see to that makes profits instead of losses he will consider it.

Mr. Bradford suggested that everyone send their comments to the Board of Supervisors in writing, so that they know what the general feelings are concerning the airport.

**FISCAL YEAR 04/05 ACCELERATED BUDGET PREPARATION REQUIRED BY COUNTY – S. Barrett**

Ms. Barrett presented the accelerated budget for review by the PAAC. The County Board of Supervisors has requested that the budget process be accelerated. The budget presented is only a draft. The numbers will change because the budget analyst along with the airport managers will review the numbers very closely. The budget will go to the Board sometime late January. There will be a budget review opportunity in the spring so that other projects that come up may be addressed.

Mr. Drinkwater stated that the airport enterprise fund and revenues for the airport have to be generated through airport development and through other developments that are independent of any general fund or taxpayer support.

**AIRPORT COMMUNITY RELATIONS ISSUES**

Mr. Brackett reported monthly operations for October were 14,568, bringing the total number year to date 159,932. Air carrier enplanements 4,139. Annual air carrier enplanements year to date 42,925. The monthly air carrier passenger throughput 3,785. The local transient traffic breakdown for the month of October was 4,021, itinerant, 10,547. IFR traffic 4,753 and VFR traffic 9,815.

Noise concerns for the month of October, 39 calls. The number year to date 369. Ratio of concerns to operations for the month of October, 1 call; 374 operations. The majority of calls during the month of October were south/west from the airport. 27 of the calls concerned jet operations, 6 for propeller operations, and 6 unknown aircraft type. 5 concerns were for loud aircraft and 5 were for low flying aircraft. 29 calls were for operations during Voluntary Noise Abatement Procedures hours. 9 of the concerns were for operations between 0700-1700. 29 concerns were for operations between 2200-0700. There was only 1 concern for operations between 1700-2200.

**DIRECTOR’S REPORT**

A Director’s report was not presented.
STAFF REPORT
A staff report was not presented.

SET AGENDA FOR MEETING ON DECEMBER 18, 2003

MEMBER ANNOUNCEMENTS
The new PAAC members will be seated. Ms. Finnila requested that they receive any kind of background that they may need concerning the Part 150 study or the CLUP so that they can readily step into their position. Four members will be appointed on December 2nd. Mr. Deem is an honorary member.

ADJOURN
Meeting was adjourned at 10:15 p.m.

_______________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:11 p.m. on December 18, 2003, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

**MEMBERS PRESENT**
Chairperson Ramona Finnila  
Bill Bradford  
Tim Hutter  
Ginna Reyes  
Howard Williams

**MEMBERS ABSENT**
Warren Deem  
Bob Gates  
Hugh Lyttleton  
Tom Ricotta

Members present did represent a quorum.

**COUNTY STAFF PRESENT**
Peter Drinkwater  
Floyd Best  
Roger Griffiths  
Dee Dee Phillips  
John Christensen

**ROLL CALL AND INTRODUCTIONS**
There were no introductions.
APPROVAL OF MINUTES

The minutes for the month of November were approved.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

The Carlsbad City Counsel approved a golf course that will be located on Palomar Airport Road at College. It will be a carts only course. The clubhouse will be available to the public for private functions. The Coastal Commission has titled the course as organic, this means that pesticides will not be used and the course will need to adhere to other specific guidelines.

The new PAAC members have been named. Ms. Finnila plans to have them seated at the January 2004 meeting.

PART 150 PRESENTATION BY URS

Mr. Fuller stated that the FAA approved the Preliminary Forecast of Aviation Activity. When the user defined profiles are approved by the FAA, URS will move forward with the Noise Exposure maps, which they hope to have completed by the middle of January 2004. The forecast presentation may need to go to the FAA for approval prior to the public presentation, but that decision will be made by the FAA.

Ms. Finnila suggested that Mr. Fuller detail the Part 150 at the January 2004 meeting in order to apprise the new members of the study.

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Griffiths reported monthly operations for November were 18,284, bringing the total number year to date 178,260. Air carrier enplanements 4,357. Annual air carrier enplanements year to date 47,282. The local transient traffic breakdown for the month of November was 5,494, itinerant, 12,786. IFR traffic 4,009 and VFR traffic 14,275.

Noise concerns for the month of November, 47 calls. The number year to date 416. Ratio of concerns to operations for the month of November, 1 call; 389 operations. The majority of calls during the month of November were south/west from the airport. 39 of the calls concerned jet operations, 5 for propeller operations, and 4 unknown aircraft type. 46 of the concerns were for operations between 0700-1700. There was only 1 concern for operations between 1700-2200.
Ms. Finnila requested that the Noise Specialist look into an early morning VNAP violation.

DIRECTOR’S REPORT

Mr. Drinkwater briefed the PAAC members on the regional carrier study. SH & E were the consultants of choice to conduct a study that would determine the future of Palomar Airport as a regional carrier and new market possibilities. The study through SH & E would utilize a data bank already in existence created for the San Diego Regional Airport Authority, thus saving the County of San Diego a substantial amount in fees.

The report currently being presented is an initial review of preliminary findings. A complete report will be delivered in January. Preliminary findings suggest that Las Vegas would be the only new market that appears to have traffic demand capable of supporting a turbo prop service. A prospective airline for Palomar to Las Vegas is not readily definable. There is a need for a further study once conclusions are drawn as to whether Palomar Airport should proceed in the regional carrier direction. PAAC members will play a vital role in these matters.

STAFF REPORT

Mr. Best stated that the taxiway Alpha project is almost wrapped up. The FAA was very happy with the progress of the project and the product. Along with the new run up area on the west end, thirty-three tie downs will be made available. Ten of the tie down spaces will be County transient spaces and the remaining twenty-three will be made available for lease at the beginning of 2004. The twenty-three spaces have already been filled by general aviation pilots, there are only eight currently on the waiting list. The rate will be determined by the going rate on the airport currently.

The FAA Part 139 inspection started yesterday and will continue today.

Staff is getting ready for the PAC, LLC. redevelopment as well as the Jetsource hangar "3" removal and hangar "2" enlargement.

SET AGENDA FOR MEETING ON JANUARY 15, 2004

Ms. Finnila requested that the final report submitted by SH & E be an action item on the agenda. A subsection should be included that a motion be made as to whether or not SH & E should continue on with a regional jet study as well.

MEMBER ANNOUNCEMENTS

The new PAAC members will be seated. Ms. Finnila requested that they receive any kind of background that they may need concerning the Part 150 study or the CLUP so that they can readily step into their position. Three members will be
appointed on December 17th. Mr Deem is an honorary member.

ADJOURN

Meeting was adjourned at 8:40 p.m.

_______________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 6:55 p.m. on January 15, 2004, in Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

Members present did represent a quorum.

COUNTY STAFF PRESENT

Floyd Best
Roger Griffiths
Olivier Brackett
Peter Drinkwater

ROLL CALL AND INTRODUCTIONS

Three new members to the PAAC were introduced and made brief comments on their backgrounds and interests.

Robert Fusilier, Supervisor Bill Horn’s appointment. Local GA pilot based out of Palomar, cabinet maker, attorney and Real estate manager.
Chuck Collins, City of Carlsbad appointment. Local businessman who has had contact with Palomar Airport since 1970’s. Mr Collins has had a business on the Airport since 1995.

John Christensen, City of Oceanside appointment. Volunteer at the Airport conducting tours. Mr Christensen has a Real property and property management background.

APPROVAL OF MINUTES

Minutes for the month of December were unavailable due to staff illness. Approval of December minutes will be held over until the February PAAC meeting.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

Ms. Finnila stated that the San Diego Marathon would be taking place in Carlsbad next Sunday Jan 18 and that this would affect some surface streets. Within the region as a whole, SANDAG will be going forward with a ballot item in November to increase sales tax by ½ cent and Proposition 42 Transportation Bill passed in 2002 will loose some 1.3 million in funding which will affect projects such as I-5/805 merge, expanded trolley services and Freeway 56.

PART 150 PRESENTATION BY URS

Mr. Fuller gave an overview of the FAA Part 150 process for the benefit of new committee members and stated that the Noise Exposure Maps (NEMS) would be completed in the next few weeks. Mr. Fuller outlined the current schedule as follows:

- Draft Part 150 Report to PAAC in May 2004
- Draft Part 150 Report to FAA in Jul 2004
- Draft Part 150 Report presented to public in Sept 2004
- FAA 180 day formal review ends Dec 2004
- If approved, final Part 150 Report in Federal Register Jul 2004

Mr. Hutter enquired about the amount of notice required for the next public meeting to present the NEMs and Ms. Reyes asked if such a meeting could be done in conjunction with a PAAC meeting. Mr. Fuller said that 30 day notice was required for the public meeting and that it was up to the PAAC to decide if they wished to combine a PAAC meeting with a public Part 150 presentation.
Ms. Reyes enquired about how the public could comment on the NEMs once they had been presented by URS. Mr. Fuller stated that all comments would be forwarded to FAA.

Mr Gates and Mr Fusilier enquired about how notification of the public meeting would be made and who would notify directly. Individual mailers would be sent out to those who participated in the PAR 2000 process, those who attended the initial Part 150 public meeting (some 45-50 people) as well as school districts and Libraries. Print ads in North County Times and Union Tribune as well as on Airports website and in Plane News magazine would also be taken out. Mr. Best stated that also the SW coalition of homeowners had been informed and Mr. Gates offered to get names of management companies he was aware of. Consideration was also given to doing a mass mailing to Airport neighbors, however, this would have an affect on the overall cost of the project. In response to a question from Mr. Earl of Carlsbad, Mr Hutter said that it was to the Airports advantage to have as many people involved in the process as possible so that the Part 150 process could be shown to have included everyone.

Mr. Clarence Magnuson of Oceanside asked what the lowest level depicted on the NEMs (60 CNEL) in everyday terms; Mr Fuller said that it was comparable to standing 50' from a 2-4 lane highway.

**AIRPORT COMMUNITY RELATIONS ISSUES**

Mr. Brackett reported monthly operations for December were 15,120, bringing the total number year to date 193,336. Monthly air carrier enplanements 4,519. Annual air carrier enplanements year to date 51,801. The monthly air carrier passenger throughput was 8,836. The local transient traffic breakdown for the month of December was 5498, itinerant, 12,786. IFR traffic 3,679 and VFR traffic 11,441.

Noise concerns for the month of December, 32 calls. The number year to date 448. Ratio of concerns to operations for the month of December, 1 call; 473 operations. The majority of calls during the month of October were south/west from the airport. 24 of the calls concerned jet operations, 5 for propeller operations, 2 for helicopters, and 1 unknown aircraft type. 3 concerns were for loud aircraft, 4 were for low flying aircraft and 1 was an over flight. 24 calls were for operations during Voluntary Noise Abatement Procedures hours. 8 of the concerns were for operations between 0700-1700. 24 concerns were for operations between 2200-0700. There were no concerns for operations between 1700-2200.

In response to a question from Mr. Collins, Mr. Brackett said that he would look into what percentage of alleged VNAP complaints were actual operations out of Palomar and what percentage were over flights.
AIRPORT LAYOUT PLAN

Mr. Drinkwater made a presentation of the new proposed Airport Layout Plan (ALP) which will go to FAA within 10 days. ALP is revised by airport operator and has to be approved by FAA when changes to airport layout are proposed. New ALP shows the proposed new Palomar Airport Center development, County operated general aviation parking on the north side of the airport, new vehicle parking as well as a conceptual layout of future terminal building on the south side of the airport. Once approved by FAA the ALP will be available for public viewing. Mr. Drinkwater reiterated that all proposed developments still required FAA Form 7460 approval to ensure that they do not affect the Airport’s airspace. In response to a question from Mr. Ricotta, Mr. Drinkwater said he did not see the airport getting any physically bigger and that there would be limits to the amount of parking required in the future. Additionally, there are no conceptual plans as yet to consider future forms of air transportation such as tilt-rotor technology.

Mr. Fusilier asked if it was thought that the PAC development would go ahead as outlined on the ALP, Mr. Drinkwater replied that that was his understanding. In response to a question by Mr. Hutter about avoiding development problems that had taken place at Gillespie Field here at Palomar concerning crew quarters and accommodation. It was stated that no such facilities were planned at Palomar or on the PAC leasehold. The definition of crew quarters remained allusive.

Ms. Reyes thanked Mr. Drinkwater for his presentation and for the work put into the design.

DIRECTOR’S REPORT

Mr. Drinkwater had nothing further to add following his ALP presentation.

STAFF REPORT

Mr. Best reported that Airport maintenance and Operations staff had continued to finish up some of the last elements of Twy Alpha project such as painting tie down spaces and ensuring stormwater compliance.

SET AGENDA FOR MEETING ON FEBRUARY 19, 2004

Ms. Finnila stated that it was time for the election of Chairperson and Vice-Chairperson.

MEMBER ANNOUNCEMENTS

There were no member announcements.
ADJOURN

Meeting was adjourned at 9:08pm

________________________________________
Ramona Finnila, Chairperson
Chairperson Ramona Finnila called the meeting to order at 7:08 p.m. on February 19, 2004, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT
Chairperson Ramona Finnila
Vice-Chairperson Tom Ricotta
Bill Bradford
John Christensen
Chuck Collins
Robert Fuselier
Tim Hutter
Hugh Lyttleton
Ginna Reyes
Howard Williams

MEMBERS ABSENT
Bob Gates

Members present did represent a quorum.

COUNTY STAFF PRESENT
Peter Drinkwater
Olivier Bracket
Roger Griffiths
Dee Dee Phillips

ROLL CALL AND INTRODUCTIONS
There were no introductions.

APPROVAL OF MINUTES
The minutes for the month of December 2003 and January 2004 were approved.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

Ms. Finnila addressed the topic of the total number of members that comprise the PAAC. She explained that due to the change in County Board Supervisors caused by redistricting, an error was made in the reporting of current PAAC members. Although PAAC is chartered to have eleven members, twelve have currently been appointed. Due to personal reasons Mr. Bradford has decided to resign, consequently bringing the member total back to eleven. Ms. Finnila stated that a resident of San Marcos would fill the next open seat.

The City of Carlsbad has been working towards a decision regarding Lots 29, 30 and 31. Once the process between both the City of Carlsbad and the County is complete, Ms. Finnila will report the decision to the PAAC.

The Carlsbad City Council met to workshop the goals and objectives for 2004. Among the several goals are: four parks, a golf course and four arterial roads.

PART 150 PRESENTATION BY URS

Mr. Fuller stated that the FAA has approved the user-defined profiles. Based upon this approval URS has moved forward and is completing the noise exposure maps which will be ready by the end of next week and available for review on the airports web page (www.sdcdpw.org/airports/) in roughly three weeks. There are three sets of exposure maps, one detailing existing conditions, and a five and ten year forecast. The approved forecast of aviation will be available for review on the airports website as well.

PAAC agreed that the second public meeting will take place on one of the following three dates:

1. Thursday, March 25th, 2004
2. Monday, March 29th, 2004
3. Thursday, April 1st, 2004

The meeting will be held at the City of Carlsbad, Faraday Center, 1635 Faraday Avenue, Carlsbad, CA. PAAC members preferred Thursday, March 29th, 2004, however the date is unofficial pending key personnel confirmation. Public notifications will be sent out next week, as well as a press release to all local newspapers. The format of the meeting is still to be decided. Mr. Hutter suggested that future Carlsbad developments be included on maps that address impacted areas.

Supervisor Horn will be invited to attend the next public meeting.
AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Brackett reported monthly operations for January were 17,228, bringing the total number year to date 17,228. Air carrier enplanements 3,931. Annual air carrier enplanements year to date 3,931. The local transient traffic breakdown for the month of January was 5,019, itinerant, 12,209. IFR traffic 4,292 and VFR traffic 12,936.

Noise concerns for the month of January, 56 calls. The number year to date 56. Ratio of concerns to operations for the month of January, 1 call;308 operations. The majority of calls during the month of January were south/west from the airport. 8 concerns were from the south/east. 37 of the calls concerned jet operations, 13 for propeller operations, 3 for helicopter operations and 3 unknown aircraft type. 16 of the concerns were for operations between 0700-1700. There was only 1 concern for operations between 1700-2200. There were 39 concerns for operations between 2200-0700.

Mr. Brackett wanted it noted that a large twin-engine aircraft was the cause of the 8 concerns from the south/east. The aircraft was executing a precautionary approach procedure due to mechanical difficulties.

A Carlsbad resident addressed the PAAC. He stated that he had concerns about helicopters to the south west of the Airport.

DIRECTOR’S REPORT

Airport administration has been in contact with Scenic Airlines for possible service. The airline is considering bringing in twin otters for service to Las Vegas.

Mr. Hutter stated concerns regarding the lack of a current master plan. Mr. Drinkwater responded by stating that there are several projects currently being considered, but they will have to be completed by priority. The Airport Layout Plan is currently being utilized in the planning phase of these projects. The airport has immediate issues that need to be addressed. Moving forward with an update to the master plan would be beneficial, but the FAA has their own priority list for projects they are willing to fund.

Mr. Drinkwater stated that phase one of the SH&E report into potential future commercial operations is almost ready for review. SH & E will not be given the go ahead for phase two until all financing is secured and the scope of work can be adequately defined.
STAFF REPORT

A staff report was not presented.

ELECTIONS

The committee conducted the annual election for the position of Chairperson and Vice-Chairperson in accordance with the Advisory Committee Policies and Procedures contained the County of San Diego Board of Supervisors’ Policy A-74. The committee elected Ms. Ramona Finnila to the position of Chairperson and Mr. Tim Hutter to the position of Vice-Chairperson.

SET AGENDA FOR MEETING ON MARCH 18, 2004

Meeting will be held at the City of Carlsbad Faraday Center, located at 1635 Faraday, Carlsbad, CA.

MEMBER ANNOUNCEMENTS

There were no member announcements.

ADJOURN

Meeting was adjourned at 8:35 p.m.

__________________________________________
Ramona Finnila, Chairperson
PALOMAR AIRPORT ADVISORY COMMITTEE  
2198 Palomar Airport Road  
Carlsbad, California 92008  
Phone: (760) 431-4646  

MINUTES  
THURSDAY, MARCH 18, 2004  

Chairperson Ramona Finnila called the meeting to order at 7:08 p.m. on March 18, 2004, in the City of Carlsbad Faraday Center, 1635 Faraday Avenue, Carlsbad, California.

MEMBERS PRESENT  
Chairperson Ramona Finnila  
Co-Chairperson Tim Hutter  
John Christensen  
Chuck Collins  
Robert Fuselier  
Bob Gates  
Ginna Reyes  
Tom Ricotta  
Howard Williams

MEMBERS ABSENT  
Hugh Lyttleton

Members present did represent a quorum.

COUNTY STAFF PRESENT  
Peter Drinkwater  
Floyd Best  
Olivier Bracket  
Roger Griffiths  
Dee Dee Phillips

ROLL CALL AND INTRODUCTIONS  
There were no introductions.

APPROVAL OF MINUTES  
The minutes for the month of February 2004 were approved.
PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There were no public comments.

CITY COUNCIL REPORT

PART 150 PRESENTATION BY URS

AIRPORT COMMUNITY RELATIONS ISSUES

Mr. Brackett reported monthly operations for February were 17,228, bringing the total number year to date 17,228. Air carrier enplanements 3,931. Annual air carrier enplanements year to date 3,931. The local transient traffic breakdown for the month of February was 5,019, itinerant, 12,209. IFR traffic 4,292 and VFR traffic 12,936.

Noise concerns for the month of February, 56 calls. The number year to date 56. Ratio of concerns to operations for the month of February, 1 call;308 operations. The majority of calls during the month of February were south/west from the airport. 8 concerns were from the south/east. 37 of the calls concerned jet operations, 13 for propeller operations, 3 for helicopter operations and 3 unknown aircraft type. 16 of the concerns were for operations between 0700-1700. There was only 1 concern for operations between 1700-2200. There were 39 concerns for operations between 2200-0700.

DIRECTOR’S REPORT

STAFF REPORT

A staff report was not presented.

SET AGENDA FOR MEETING ON APRIL 15, 2004

MEMBER ANNOUNCEMENTS

There were no member announcements.

ADJOURN

Meeting was adjourned at 9:15 p.m.

------------------------------ Ramona Finnila, Chairperson
Newspapers
Palomar Airport initiates noise study

PAT STOREY
Staff Writer

CARLSBAD — Residents will have a chance this month to sound off on McClellan-Palomar Airport's first noise study in more than a decade.

Airport authorities have scheduled a public meeting for March 27 to gather comments about their Federal Aviation Regulation Part 150 Noise Compatibility Study. The meeting will be from 7 to 9 p.m. at the City of Carlsbad's Faraday Center, 1635 Faraday Ave.

Although no time is set for doing the studies, they are generally held periodically to foster better relations between the airport and surrounding community. The last one done at Palomar was in 1990.

Three public meetings will be held, the first of which will explain the Part 150 process.

"We will be doing a technical study that will determine the types of aircraft that use the airport, the numbers and times of day they are used, and based on that, a computer model map will be generated that will show noise contours, or noise exposure maps," said Floyd Best, airport manager.

The map will show how much noise businesses, employees and residents in the region are exposed to from aircraft using the airport, he said.

Best said officials at the public meeting will also explain that Palomar is part of the National Air Transportation System, is federally funded and operates under certain federal

requirements.

A second public meeting will be held after the noise exposure maps are done. The third will be held after the public has had a chance to review the draft study.

The study is expected to take 15 months, and once completed will go to the Federal Aviation Administration for review and approval.

The public is invited to attend the meeting with comments or concerns about the airport. Best said officials would try to respond as much as possible.

"Within the parameters of our operating requirements, we would look to see if there are ways to accommodate concerns from the public and still keep the airport functional," he said.

Palomar Airport is used mostly by private and business pilots. It has two commercial passenger carriers: America West Express, which offers two flights daily to Phoenix; and United Express, which offers six daily flights to Los Angeles.

Contact staff writer Pat Storey at (760) 901-4068 or pstorey@nctimes.com.

3/11/03
Palomar Noise Study To Begin

A unique process to ensure full public input regarding McClellan-Palomar Airport's aircraft-related noise impacts is now in place. A Part 150 Noise Compatibility Study for the Airport pursuant to receipt of an FAA-sponsored grant and will be underway this Fall.

While such a study typically runs 18 to 24, the County anticipated the need for full public input and conducted a “roundtable” effort to ensure a quality product to address community concerns.

The PAR 2000 (Palomar Airport Roundtable) Final Report was approved for inclusion in the study by the County Board of Supervisors in late April. This action allows the airport to process recommendations that may be achievable within current County resources. One recommendation was to hire a full time Environmental Noise Specialist for McClellan-Palomar. Russ Couchman, a pilot with a degree in Aviation Management was appointed in November. Since the Board’s action, Couchman met with various pilot groups to discuss aircraft operations-related recommendations from the report. He is also currently working on the PAR 2000 recommendation to place a noise abatement sign depicting the Runway 24 Alpha departure at the approach end of Runway 24 clearly visible to departing pilots. The Alpha departure calls for a heading of 250 degrees off Runway 24 until ½ mile offshore.

Other Voluntary Noise Abatement Procedures request pilots to hold turns until reaching 800’, and to maintain 2000’ until descending to pattern altitude, using the north pattern when possible. Couchman interfaces with airport users, pilots, the general public, and businesses on the airport. He also maintains and operates a sophisticated flight tracking/noise monitoring system.

Feeling Secure With OB

Gates at County airports are locked for good reason. Access is restricted to facilities. Security is the purview of Olivier “OB” Brackett.

As Airport Security and Safety Coordinator, OB develops security plans for airports. Included is ensuring airport fences are properly installed and in good condition, that gates and locks work properly and preventing runway incursions. He also oversees private security officer contracts.

OB is no stranger to security or airports. He spent 20 years in the Marine Corps, where his first duty was armed protection of United States assets and his second was as an air traffic controller. But he thinks he’s found a home at County airports.

“I love it. There’s a real dedication among everybody to provide good customer service here,” he said. “Having come from the Marine Corps where commitment is a big part of what we’re about, the level of commitment at the County is right in step with what I’m used to.”
February 27, 2003

Dear (insert name here):

You have been identified as an interested party for the McClellan-Palomar Airport. This letter is to inform you that San Diego County has received authorization to proceed by the Federal Aviation Administration (FAA) to prepare a Federal Aviation Regulation Part 150 Noise Compatibility Study Update at McClellan-Palomar Airport. URS Corporation has been retained by the County to prepare the study. A Part 150 Study consists of two parts: the development of airport noise exposure maps and the creation of a noise compatibility program including public involvement. The study is anticipated to take approximately 15 months to complete. Upon completion, the study will be submitted to the FAA for review and approval, which will take up to six months.

The Part 150 Study will incorporate a public participation process. Three public meetings will be held to solicit input from the community. The first meeting, scheduled for March 27, 2003, will explain the Part 150 process. The second meeting will be held after completion of the noise exposure maps. The third meeting will be held after the public has had the opportunity to review the draft study. Advance notice of these meetings will be made available to the public through mailers and news releases to local newspapers.

The ultimate goal of the study is to facilitate the best possible relationship between the airport and the surrounding communities by minimizing airport noise, ensuring that existing compatible land uses will remain compatible, and by developing an ongoing process to implement program recommendations. Throughout the process, we will remain in contact to notify you of upcoming events or developments.

You can expect to receive a mailer containing more detailed information regarding the first public meeting soon. If you have any questions before then, please contact the Part 150 Noise Compatibility Study Project Manager, Jeff Fuller, at (619) 294-9400. Thank you for your time, and we look forward to working with you.

Sincerely,

Floyd Best
Manager, McClellan-Palomar Airport
Public Meeting Planned for McClellan-Palomar Airport Noise Compatibility Study

McClellan-Palomar Airport invites you to attend the first of three public meetings scheduled to provide information on the Part 150 Airport Noise Compatibility Study and gather public input.

San Diego County has received authorization from the Federal Aviation Administration (FAA) to prepare a Federal Aviation Regulation Part 150 Noise Compatibility Study at McClellan-Palomar Airport. The goal of the study is to facilitate the best possible relationship between the airport and surrounding residential and business communities by reducing aviation noise impacts and achieving land use compatibility. The major components of the study include the development of noise exposure maps and the creation of a noise compatibility program including public involvement. At the end of this approximately 15-month process, study results will be presented to the FAA for review and approval.

Local community members are encouraged to attend a public meeting on March 27 from 7 to 9 p.m. at the City of Carlsbad’s Faraday Center to learn more about the Part 150 Study and provide input.

Please join us for a meeting on March 27 from 7 to 9 p.m. at the City of Carlsbad’s Faraday Center, 1635 Faraday Ave., Carlsbad, CA 92008.

BACK SIDE:
McClellan-Palomar Airport

Public Meeting

McClellan-Palomar Airport
2198 Palomar Airport Rd.
Carlsbad, CA 92008

- **When:** March 27, 7 to 9 p.m.
- **Where:** City of Carlsbad Faraday Center
  1635 Faraday Ave.,
  Carlsbad, CA 92008
| Attention: Jack Feller                  | Attention: Jim Wood                       | Attention: Gerald Gilbert                  |
| Council Member                        | Council Member                           | Planning Director                        |
| City of Oceanside                     | City of Oceanside                        | City of Oceanside                        |
| 300 N. Coast Highway                  | 300 N. Coast Highway                     | 300 N. Coast Highway                     |
| Oceanside, CA 92054                   | Oceanside, CA 92054                      | Oceanside, CA 92054                      |
| **Attention: Jan Sobel, CEO**         | **Attention: Ron Rouse**                 | **Attention: Mitch Mitchell**             |
| Carlsbad Chamber of Commerce          | Carlsbad Chamber of Commerce             | Carlsbad Chamber of Commerce             |
| Economic Enhancement Council          | Economic Enhancement Council             | Economic Enhancement Council             |
| P.O. Box 1605                         | P.O. Box 1605                            | P.O. Box 1605                            |
| Carlsbad, CA 92008                    | Carlsbad, CA 92008                       | Carlsbad, CA 92008                       |
| **Attention: Jerry Houser, Director** | **Attention: Cheryl Ernst**              | **Attention: Jerome Pendzick**           |
| Palomar Community College – Aeronautics| Superintendent                           | Federal Aviation Administration          |
| Program                               | Carlsbad Unified School District         | Flight Standards District Office         |
| 1140 West Mission Road                | 801 Pine Avenue                          | 8525 Gibbs Drive                         |
| San Marcos, CA 92069                 | Carlsbad, CA 92008                       | San Diego, CA 92123                      |
| **Attention: Sallyanne Rice**         | **Attention: Jim Braithwaite**           | **Attention: Linda O’Brien**             |
| Federal Aviation Administration      | Federal Aviation Administration          | Federal Aviation Administration          |
| Air Traffic Management                | Air Traffic Management                   | Socal Tracon                             |
| 10530 Burned Oak Lane                 | 9175 Kearny Villa Road                   | 9175 Kearny Villa Road                   |
| Escondido, CA 92026                   | San Diego, CA 92126                      | San Diego, CA 92126                      |
| **Attention: Nan Valero**             | **Attention: Dick Dyer, Director**       | **Attention: Tom Harnish**               |
| San Diego Association of Governments  | SANTRANS Department of Transportation    | Barnstorming Adventures                  |
| 401 B Street, Suite 800              | Aeronautics                              | 6743 Montia Court                        |
| First Interstate Plaza                | P.O. Box 94273-0001                      | Carlsbad, CA 92009                       |
| San Diego, CA 92101                  | Sacramento, CA 95814-5605               | **Attention: Ted Anasis**                |
| **Attention: George McJimsey**        | **Attention: Floyd Best**                | **Attention: Juanita Hayes, CEO**        |
| Pinnacle Aviation                     | Airport Manager                          | San Marcos Chamber of Commerce           |
| 2016 Palomar Airport Road, Suite D    | Mcclellan Palomar Airport                | 939 Grand Avenue                         |
| Carlsbad, CA 92008                    | 2198 Palomar Airport Road                | San Marcos, CA 92069                    |
| **Attention: Leo Mantas, CEO**        | **Attention: Sherry Hamilton, CEO**      | **Attention: Jeff Gilley**               |
| Vista Chamber of Commerce             | Encinitas Chamber of Commerce            | Manager                                  |
| 127 Main Street                       | 138 Encinitas Blvd.                      | National Business Aircraft Association    |
| Vista, CA 92084                       | Encinitas, CA 92024                      | 1200 18th Street, NW Suite 400           |
| **Attention: David Hydegger, CEO**    | **Attention: Bob Hall**                  | Washington D.C. 20036-2527               |
| Oceanside Chamber of Commerce         | Air Line Pilots Association              | **Attention: Brent J. Bohiken, President**|
| 928 North Coast Hwy                   | 535 Herndon Parkway                     | San Diego County Commercial Association   |
| Oceanside, CA 92054                   |                                             | of Realtors - CAR Region 20              |
| **Attention: Keith Holt**             | **Attention: Sylvia Gustafson**          | 1250 6th Avenue, #211                    |
| Manager of Airport Policy             | San Diego County Airport Division        | San Diego, CA 92101                      |
| Aircraft Owners and Pilots Association | 1960 Joe Crosson Drive                   | **Attention: Martha Greenlaw, Manager**  |
| 421 Aviation Way                      | El Cajon, CA 92020                       | Magellan Aviation                        |
| Frederick, MD 21701                   |                                             | 2006 Palomar Airport Rd.                 |
| **Attention: Cheryl Betyar, President**| **Attention: Shaun Monegan, Manager**   | **Attention: Brent J. Bohiken, President**|
| San Diego Association of Realtors     | Jet Source Charter, Inc.                 | San Diego County Commercial Association   |
| CAR Region 24                         | 2056 Palomar Airport Rd.                 | of Realtors - CAR Region 20              |
| P.O. Box 85586                       | Carlsbad, CA 92008                       | 1250 6th Avenue, #211                    |
| San Diego, CA 92186-5586              |                                             | San Diego, CA 92101                      |

**Attention: Bob Hall**
Air Line Pilots Association
535 Herndon Parkway
Herndon, VA 20170

**Attention: Brent J. Bohiken, President**
San Diego County Commercial Association of Realtors - CAR Region 20
1250 6th Avenue, #211
San Diego, CA 92101

**Attention: Martha Greenlaw, Manager**
Magellan Aviation
2006 Palomar Airport Rd.
Carlsbad, CA 92008
Attention: Henry Schubach, Manager
Schubach Aviation
2006 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Ginna Reyes, Manager
Western Flight
2210 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Scott Walker, President
Elite Jet
5962 La Place Ct.
Carlsbad, CA 92008

Attention: Donald Graham
Station Manager
United Express (Skywest)
2198 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Ken Zirda
Flying Samaritan Group
5208 Sand Dollar Ct.
San Diego, CA 92130

Attention: Lason Brown
President
Exclusive Charter Services
3753 John Montgomery Drive
San Diego, CA 92123

Attention: Sandy Detherage
Air Traffic Controller, Palomar Airport
2200 Palomar Airport Road
Carlsbad, CA 92008

Attention: Treena Smith, Manager
America West Express, Commuter Terminal
2198 Palomar Airport Road
Carlsbad, CA 92008

Attention: Robert Wolter
Civic Helicopters
2192-H Palomar Airport Road
Carlsbad, CA 92008

Attention: Mel Holmes, President
Grey Eagle Aviation
2186 Palomar Airport Road
Carlsbad, CA 92008

Attention: George McJimsey, President
Pinnacle Aviation Academy
2016 Palomar Airport Road
Carlsbad, CA 92008

Attention: Theresa Terrel, Vice President
Orion Aviation Inc.
2138-B Palomar Airport Road
Carlsbad, CA 92008

Attention: Misty Pawlowski
Operations Supervisor
Eastridge Group
5650 El Camino Real, Suite 101
Carlsbad, CA 92008

Attention: Jack Williams
Aviation
6714 Bamboury Place
Carlsbad, CA 92009

Attention: Wayne Dauber
South Seas
P.O. Box 5035
Rancho Santa Fe, CA 92067

Attention: Greg Hein
Aviation Resource Group
29928 Lilac Road
Valley Center, CA 92082

Attention: Nelson Carrick
Palomar Fuels
2006 Palomar Airport Road
Carlsbad, CA 92008

Attention: Gordon Sieler, Resident
5082 Dassia Way
Oceanside, CA 92056-7400

Attention: Leslie Jantz, Resident
1207 Countrywood Lane
Vista, CA 92083

Attention: Ron Sea, Resident
6423 Merlin Drive
Carlsbad, CA 92009

Attention: Brad Lund, Resident
6708 Lonicera
Carlsbad, CA 92008

Attention: Tom Foster, Resident
2289 Bryant Drive
Carlsbad, CA 92008

Attention: Francis Bonner, Resident
6503 Friendly Place
Carlsbad, CA 92009

Attention: Robert Pat, Resident
2770 Sunny Creek Road
Carlsbad, CA 92008

Attention: Terence A. Davies, Resident
1021 Goldeneye View
Carlsbad, CA 92009

Attention: James R. Wright
Ocean Hills Country Club
6017 Piros Way
Oceanside, CA 92056-7266

Attention: Lee Baldridge, Resident
1139 Cabot Court
Vista, CA 92083

Attention: Principal
Aviara Oaks Elementary School
6900 Ambrosia Lane
Carlsbad, CA 92008

Attention: Principal
Aviara Oaks Middle School
6880 Ambrosia Lane
Carlsbad, CA 92008

Attention: Principal
Buena Vista Elementary School
1330 Buena Vista Way
Carlsbad, CA 92008
<table>
<thead>
<tr>
<th>School Name</th>
<th>Address</th>
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<td>Jefferson Middle School</td>
<td>823 Acacia Avenue</td>
<td>Oceanside, CA 92057</td>
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<tr>
<td>King Middle School</td>
<td>1290 Ivey Ranch Road</td>
<td>Oceanside, CA 92057</td>
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<td>Lake Elementary School</td>
<td>4950 Lake Blvd.</td>
<td>Oceanside, CA 92057</td>
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<td>Laurel Elementary School</td>
<td>1410 Laurel Street</td>
<td>Oceanside, CA 92057</td>
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<td>423 W. Redondo Drive</td>
<td>Oceanside, CA 92057</td>
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<td>2000 California Street</td>
<td>Oceanside, CA 92057</td>
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<td>Oceanside, CA 92057</td>
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<td>Oceanside, CA 92057</td>
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<td>North Terrace Elementary School</td>
<td>940 Capistrano Drive</td>
<td>Oceanside, CA 92057</td>
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<tr>
<td>Ocean Shores High School</td>
<td>3131 Oceanside Blvd</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Oceanside High School</td>
<td>100 S. Horne Street</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Pacific View Charter School</td>
<td>3355 Mission Avenue, #139</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Pacifica Elementary School</td>
<td>4991 Macario Drive</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Palmquist Elementary School</td>
<td>1999 California Street</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Reynolds Elementary School</td>
<td>4575 Douglas Drive</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Roosevelt Middle School</td>
<td>850 Sagewood Drive</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>ROTC Oceanside High School</td>
<td>1st and Horne</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>San Luis Rey Elementary School</td>
<td>3535 Hacienda Drive</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>San Rafael Elementary School</td>
<td>1616 San Rafael Drive</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Santa Margarita Elementary School</td>
<td>1 Carnes Road</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>South Oceanside Elementary School</td>
<td>1806 S. Horne Street</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Stuart Mesa Elementary School</td>
<td>100 Yamanako Way</td>
<td>Oceanside, CA 92057</td>
</tr>
<tr>
<td>Discovery Elementary School</td>
<td>730 Applewilde Drive</td>
<td>San Marcos, CA 92069</td>
</tr>
<tr>
<td>Foothills High School</td>
<td>158 Cassou Road</td>
<td>San Marcos, CA 92069</td>
</tr>
<tr>
<td>Knob Hill Elementary School</td>
<td>1825 Knob Hill Road</td>
<td>San Marcos, CA 92069</td>
</tr>
</tbody>
</table>
Attention: Library Manager
Oceanside City Library
321 N. Nevada St.
Oceanside, CA  92054

Attention: Library Manager
Oceanside Public Library
330 N. Coast Highway
Oceanside, CA  92054

Attention: Library Manager
Encinitas Public Library
540 Cornish Drive
Encinitas, CA  92024

Attention: Library Manager
Vista Library
700 Eucalyptus Ave.
Vista, CA  92084

Attention: Floyd Best
Palomar Airport Advisory Committee
2198 Palomar Airport Road, MS N137
Carlsbad, CA  92008-4814

Federal Aviation Administration
San Diego Flight Services
Manager, Rose L. Sardisco
4302 Ponderosa Avenue
San Diego, CA  92123

Attention: Betsy Eskridge
Department of Transportation
Division of Aeronautics, MS #40
P.O. Box 942874
Sacramento, CA  94274-0001
McClellan-Palomar Airport
FAR Part 150 Noise Compatibility Study

McClellan-Palomar Airport opened in 1959 and is operated by the County of San Diego. The airport serves the general aviation community, corporate aircraft and commercial services. In 2002, the airport had 204,289 operations.

In 2000, the Palomar Airport Advisory Committee (PAAC) formed the Palomar Airport Roundtable 2000 (PAR 2000) to inform the public of the regulations that the airport operator must follow and seek public input for the upcoming Part 150 Noise Compatibility Study Update. The Airport completed its first Part 150 Study in 1990.

Under funding and authorization from the Federal Aviation Administration (FAA), the County of San Diego is updating its FAR Part 150 Noise Compatibility Study at McClellan-Palomar Airport. The County has retained URS Corporation to develop the study. The goal of the study is to facilitate the best possible relationship between the airport and surrounding residential communities by minimizing aviation noise impacts and maintaining land use compatibility.

NOISE COMPATIBLE LAND USES STUDY

What is a Part 150 Noise Compatibility Study?
Part 150 is a federal program using aviation-generated funds to achieve the greatest possible compatibility between an airport and the surrounding community. Objectives of the study are to:
- Determine existing aircraft activity and identify its effects on the community
- Assess aircraft flight tracks and airport facilities to determine if changes would result in reduced noise impacts on surrounding communities
- Maintain land use compatibility
- Establish procedures for implementing the noise compatibility program that results from the Study

The study will consider current land uses, runway operations and alignment, airport boundaries, streets, buildings, permitted development, aircraft noise levels and fixed wing and rotary-wing flight tracks routinely occurring over the cities of Carlsbad, Encinitas, Oceanside, Vista and San Marcos. The Part 150 Study is comprised of two components: the Noise Exposure Maps and the Noise Compatibility Program.

For More Information...
Contact Jeff Fuller, Project Manager | 619.294.9400
We Need Your Input

Public involvement is a crucial component of the Part 150 process to attain the ultimate goal of land use compatibility. A series of public meetings will be held to inform the public and gather their input on the Noise Compatibility Study, and public comments will be incorporated into the Study for presentation to the FAA.

Noise Exposure Maps

The development of the noise exposure maps is the most technical component of the study. This process includes compiling existing flight and engine run-up operations data, types and times of operations, departure and arrival flight tracks and runway utilization. Local terrain features will be considered in the computation of a Community Noise Equivalent Level (CNEL) contours using the FAA’s Integrated Noise Model (INM). Five and 10-year forecasts will be developed in addition to maps reflecting current noise exposure.

Computer-generated noise exposure maps will show the noise contours determined from the types of aircraft using the airport and the numbers of flights and times of day they are used.

Noise Compatibility Program

The Noise Compatibility Program (NCP) is a series of actions that, if approved by the FAA, the airport operator will implement to reduce the level of noise exposure. These actions consider both airport and aircraft operational measures that are intended to reduce noise directly.

Since the situation at McClellan-Palomar Airport is not identical to any other airport, it will require a unique combination of mitigation measures to achieve an acceptable resolution. A wide range of alternatives will be explored in order to determine the most feasible set of alternatives for implementation.

Modification of certain aircraft and airport operational procedures has the potential to reduce aircraft noise exposure on people, residential areas, schools, churches, and other noise-sensitive sites around the airport. Operational noise abatement alternatives may result in a shift in the shape of the noise contours. New or revised air traffic control procedures are subject to environmental assessment. This includes procedures that alter flight tracks or the specific altitudes utilized by aircraft. If the FAA makes a Finding of No Significant Impact (FONSI), then the proposed procedures may be implemented.

Public Involvement

The Part 150 Study will incorporate an extensive public participation process. The PAAC will serve as the citizen review committee for the study. In addition, three public meetings will be held to solicit input from the community. The first meeting will explain the Part 150 process. The second meeting will be held after completion of the noise exposure maps. The third meeting will be held after the public has had the opportunity to review the draft study. The public will be invited to provide written and oral comments on the draft study.

For More Information...

Contact Jeff Fuller, Project Manager | 619.294.9400
McClellan-Palomar Airport
Part 150 Noise Compatibility Study
Update
Public Meeting - Kickoff
March 27, 2003

Welcome
- Introductions
- Opening Remarks
- Presentation
- Questions and Answers

Presentation
- Project Team
- Study Definition and Goals
- Project Approach
- Schedule

Project Team
- URS Corporation
  - Deborah Murphy – Project Director
  - Jeff Fuller – Project Manager
  - Joe Czech – Project Engineer
- Katz & Associates
  - Patricia Tennyson
  - Kristina Alexanders

URS Overview
- Planning, engineering, environmental, and applied sciences
- 25,000 people worldwide
- 2,500 people in California
- San Diego office since 1938

Part 150 Noise Compatibility Studies
- Four Corners Regional Airport
- Key West International Airport
- Austin-Bergstrom International Airport
- Birmingham International Airport
- Brownsville/South Padre Island International Airport
- Manchester Airport
- Memphis International Airport
- Alliance Airport
- Spilaks Airport
- Ft. Worth-Meacham International Airport
- Ft. Smith Regional Airport
- Alexandria International Airport
What is a Part 150 Study?

A Part 150 Study is a voluntary effort by an airport to achieve the greatest possible compatibility between an airport and surrounding community.

Why conduct a Part 150 Study?

- To help facilitate the best possible relationship between the airport and surrounding communities
- Update the previous study (13 years old)
- Utilize FAA funding to help implement a noise compatibility program

Part 150 Requirements

- Develop Noise Exposure Maps
- Develop Noise Compatibility Program
- Involve the Community
- Prepare Draft Report

Approach

- Develop Noise Exposure Maps
- Develop Noise Compatibility Program
- Involve the Community
- Prepare Draft Report

Develop Noise Exposure Maps

- Compile Existing Flight and Run-Up Operations Data
- Develop 5- and 10-year Forecasts
- Input Local Terrain Features
- Compute CNEL Contours With INM V6.1
Community Noise Equivalent Level (CNEL)

- Accounts for noise from single specific aircraft types events
- Penalizes evening and nighttime events
- Utilizes annual average daily operations
- Specified by CCR Title 21

CNEL Comparison

- Downtown in Major Metropolis
- Dense Urban Area with Heavy Traffic
- Urban Area
- Suburban and Low Density Urban
- Small Town and Quiet Suburban
- Rural

Develop Noise Compatibility Program

- Operational Noise Abatement Measures
  - Review Existing Procedures
  - Identify Alternatives
- Land Use Mitigation Measures
  - Corrective
  - Preventive
- Program Management Measures
- Consider PAR 2000 Recommendations and the 1990 Part 150 Study

Community Involvement

- Public Meetings
  - Kick-Off
  - Present NEMs
  - Present Draft Study
- Monthly PAAC Meetings
  - www.co.san-diego.ca.us/dpw/airports
  - Palomar Airport Advisory Committee
  - Third Thursday, 7 PM, Carlsbad City Hall
- Public Comment on Draft Part 150 Study

Project Schedule

- FAA interim reviews
  - Activity Forecast
  - Noise Exposure Maps
- Approximately 15 Months to Submit Noise Compatibility Program to FAA
- 180 Day FAA Formal Review Period
  - Reviews and approves or disapproves each individual recommendation

Frequently Asked Questions

- What can the Airport do to keep aircraft from flying over particular neighborhoods surrounding CRQ?
- Can flight track/path alterations be made?
- What type of operating restrictions can be imposed by the Airport?
- How is the Airport limited to control its operations?
Summary of Meeting
MEETING SUMMARY
McClellan-Palomar Airport
FAR Part 150 Noise Compatibility Study Public Meeting #1

Date/Time: Thursday, March 27, 2003, 7 to 9 p.m.
Location: City of Carlsbad, Faraday Center, 1635 Faraday Avenue, Carlsbad, CA 92008
Facilitator: Patricia Tennyson

Number of public attendees: 38

Participants:
Ramona Finnila, Mayor Pro Tem of Carlsbad and Palomar Airport Advisory Committee Member, Chair
Jeff Fuller, Project Manager, URS
Deborah Murphy, Project Director, URS
Joe Czech, Project Engineer, URS
Floyd Best, Airport Manager, McClellan-Palomar Airport
Patricia Tennyson, Katz & Associates
Kristina Alexanders, Katz & Associates
Kellie James, Katz & Associates

Introductions and Meeting Agenda Review
P. Tennyson started the meeting with introductions, a review of the agenda and a mention of the aerial map at the sign-in table. Meeting attendees were encouraged to place a pin in the map corresponding to where they live so the project team is aware of the reach of aviation noise impacts. Opening remarks were made by R. Finnila welcoming the public and providing a brief overview of the study.

Presentation
J. Fuller, D. Murphy and J. Czech provided details of the study with a PowerPoint presentation, answering questions afterward. Questions and comments were recorded by Katz & Associates for future consideration by the project team and are included below.

Questions and Answers
Who conducts the environmental assessment for this study?

If they find it necessary, the Federal Aviation Administration (FAA) would conduct the environmental assessment for the study.
What weight will the PAR 2000 study hold in this study?

The findings of the PAR 2000 study will be fully taken into account and incorporated in the FAR Part 150 Study.

Is this study being conducted or initiated by the San Diego County Regional Airport Authority, or is it an independent study?

This is an independent study, unaffiliated with the Airport Authority.

In the end, who really will control the outcome of the study? Will it all depend on the FAA? This seems like a confusing process.

The FAA has the final say over what outcomes result from the Part 150 Study.

You mentioned that an airport cannot be restricted. Can you explain the recent John Wayne restriction?

We are not familiar with any restrictions placed on John Wayne Airport.

Is there a similar noise compatibility study or noise abatement process for trains?

Trains are federally regulated. We recommend that you contact North County Transit District (NCTD) for information. R. Finnila provided the address for the NCTD office in Carlsbad.

What land use changes are you going to recommend? What land use change can occur at this time?

That determination will be made once the study is complete. The study can make recommendations for non-designated land to be used in a compatible way, but the airport does not have the authority to implement these recommendations.

Are there any measures currently in place at the airport to measure noise? What measures will be taken as a result of the study and who is designated to control this?

The noise abatement officer position at McClellan-Palomar Airport is currently being reviewed. This person is tasked with measuring airport noise and responding to noise concerns. Due to understaffing, the position is currently not filled.

Has the current fleet mix at McClellan-Palomar Airport been analyzed? Are there any plans to increase the fleet mix?

The current fleet mix is being analyzed for the study. There are no plans to increase the fleet mix at this point.

Will any field testing of the noise at the airport be included in the model? Is there a base year run included?
No field testing will be conducted. Field testing is not required as part of the Part 150 process.

Is there current empirical data that you start with for the study? Please explain where you start.

Current empirical data including flight operations, fleet mix and noise models are used at the beginning of the study.

Have there been any studies on the effectiveness of a noise officer at an airport? Are results better when the position is filled, and do they decrease when it is not?

There are no known studies of this kind to our knowledge. It can be recommended that the position be filled, as it has been effective in the past.

When will the noise exposure maps and the draft study be presented to the public?

The noise exposure maps will be completed in four to five months if a quick response from the FAA is provided. The draft study will be complete in March 2004.

Is there another reference that you use in your study analysis aside from the advisory circular? From where are your study tasks derived?

The tasks for the study are derived from the FAR Part 150 Noise Compatibility checklist provided by the FAA.

The number of flights overhead is a large concern. Is there consideration for noise levels in the Ocean Hills area too, or just in Carlsbad?

If a high volume of flights are routinely heard overhead in your neighborhood, the study will capture that and will account for it. The study will consider areas that are affected by airport noise. These areas will be reflected in the noise exposure maps that will be produced.

What restrictions are currently imposed on the airport regarding flights and flight patterns? What are the time-of-day restrictions on flights?

Current flight pattern restrictions are established by the FAA for arrival and departure. There are no mandatory time restrictions on flights. There are, however, voluntary time restrictions that pilots are asked to follow. The FAA would have the authority to make these voluntary restrictions mandatory.

Is expansion a future possibility for the airport? Will larger, noisier airplanes be using it?

URS is in the data gathering phase and will examine any changes predicted to occur at the airport in the next 5 to 10 years, which could involve the use of noisier, but not necessarily larger, aircraft.
Are there any plans in the aviation industry to make aircraft quieter?

There are currently studies being done to investigate the effectiveness of new aircraft noise-reduction technology.

Was public comment helpful in choosing this airport for a study?

Yes. Public concerns over noise levels were considered when choosing this airport for a Part 150 Study. Residential development occurring over the last few years was also taken into consideration.

The most serious noise violators seem to be experimental aircrafts. Are there any sanctions placed on serial violators?

In order for these routine violators to be documented and sanctioned, a noise abatement officer needs to be present. Because of the lack of staffing, the airport manager often does not have the time or resources to research responses to every inquiry.

Will you be considering what criteria if any are used for over-burdening the runway? Slower planes seem to hold up faster planes in the flight pattern. This disrupts the flow of air traffic and causes it to not adhere to the regular air pattern over the ocean. What about the safety issues connected to this?

These flight patterns are controlled by the FAA, not the airport. Safety issues connected to flight patterns are not addressed in the Part 150 Study.

What are the flight regulations regarding sea level? What is the minimum altitude restriction above populated areas?

Within a three-mile radius of the airport, there are no minimum altitude restrictions, since aircraft are either departing or arriving within this area. Outside the three-mile radius surrounding the airport, the minimum altitude is 1,000 feet.

How many FAA representatives are involved in the fate of this study? Where are they located and what are their names?

David Kessler of the Hawthorne/Los Angeles office will be the FAA project lead. Once received by his office, the study findings will then be sent to FAA headquarters in Washington, D.C.

In the last four or five years, there has been an increase in air traffic during weekends. More homes are going up that will be affected by air traffic noise. What considerations are being made for these new residential areas?

Many scenarios will be studied during this process to find the best possible land use compatibility to accommodate existing and future aircraft noise, taking into account homes that will soon be built in the area.

Should citizens still call in their concerns regarding noise in the absence of a designated noise officer?
Yes, concerns should still be called in to the airport, even in the absence of a noise officer. All concerns are recorded and documented.

The touch and go landings of the flight school are noisy and bothersome. Are there any restrictions on the flight school?

There are no special restrictions on the flight school.

How many proposals resulting from the 1990 Part 150 Study were accepted by the FAA? Were these accepted proposals restrictive in nature? Do you consider that to be an indicator of how successful you expect this study to be?

There were 18 Noise Abatement Measures and 6 Noise Mitigation Measures proposed as a result of the 1990 study. Nine of the 18 Noise Abatement Measures were approved by the FAA, and five of the approved measures were voluntary. The six Noise Mitigation Measures were also approved. Regardless of what was approved in the past by the FAA, we expect a successful study. Congress has passed legislation since the last Part 150 Study that has additional requirements.

I hear flights taking off occasionally between 4 and 6 a.m. Is there someone at the airport monitoring these flights occurring at odd times of the day?

Security is present at the airport 24 hours a day, seven days a week.

Will there be a conflict with the airport if a golf course is built? Is that land use considered “compatible”?

The presence of a golf course near the airport would be considered compatible in regards to noise, as opposed to homes.

Why aren’t there stricter security measures that deal with noise problems?

Noise issues are evaluated independent of security issues. They are not directly related.

New houses have been approved by Cabrillo Ranch. Isn’t the City concerned for the future residents of this area?

There is a disclosure form sent to all homeowners within the Noise Impact Notification Area with their deed that must be signed. New homeowners are aware of the presence of the airport.

Can it be recommended to the FAA and incorporated into the study that smaller planes should not turn upon departure? Can the benefits of this change be quantified to the FAA? It would be a good way to reduce noise over residential neighborhoods.

Considerations from the public such as this can be considered for input into the Study for submittal to the FAA. These are the types of public comments that are
beneficial to the project team, allowing them to consider multiple concerns and possible solutions.

Are peaks and valleys in flight traffic taken into account in the noise model? There is much transient air traffic at the airport that causes fluctuations in flight traffic.

The model looks at the average flight traffic in one day, and considers time of day as well. When decibels are averaged, it’s typical that the higher decibel levels of louder aircrafts are reflected.

Comments

There doesn’t appear to be any accountability for low-flying aircraft.

Noise problems have improved over the last few months. The noise officer was helpful.

The airport noise reporting form is a good way to collect information for the study. The form can be found at www.sdcdpw.org/noise/

Jet departures should be included in the data collection for the study.

The City of Carlsbad should lobby to have the noise officer position filled. The lack of staffing for this position affects the citizens of Carlsbad.

Part of the noise problem is that planes take off and go in different directions.

Traffic should head out over the ocean and there should be two runways.

Please consider the heavy traffic of flight departures. Homeowners on the north side of the airport and Calavera Hill are affected by the frequent noise of the jet engines from these departures.

Nothing has been resolved in reference to noise control. We have gone nowhere and nothing has been accomplished.

There is a disconnect between the City and those who conduct these noise studies. They seem to be operating at cross-purposes. All the approved development makes it difficult for these studies to be successful.

The airport does not bother me. I use it frequently and hope that it is expanded.

Conclusion

P. Tennyson concluded the meeting by informing attendees that project representatives would be available to discuss further questions for a short while until 9 p.m. She also urged those present to take public comment forms with them to fill out and send in, should they have more questions in the future. It was announced that all present would receive information regarding the next public meeting, tentatively scheduled for August 2003.
Question/Comment Form
McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: May 9 2003
Name: Frederic J. Koolhof
Address: 3425 Don Carlos Dr, Carlsbad 92008
E-mail Address: none
Telephone: (760) 438-3364

Question/Comment:

Noisy cars and motorbikes get tickets and a fine. Some planes are VERY NOISY, and other ones you can hardly hear. Is there not a regulation as to the noise-level a plane engine makes? I mean also on the ground and on take-off.

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff Fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5/8/03

Name: MARGUERITE F. SCHENK

Address: 3467 DON ORTEGA DR.

E-mail Address: fpschenk@mailstation.com

Telephone: 760/438-4054

Question/Comment:

We have no complaints in regard to the airport. Have lived in Pescadero Coast about 18 years and never aware of the airport when we moved here. After all - the airport does have fuel!

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-8-03

Name: Anita Grunewald
Address: 5442 Don Juan Drive
E-mail Address: 
Telephone: (760) 929-0331

Question/Comment:
I would like to see larger planes land here - the noise would be worth the convenience of having perhaps American Airlines or other large distance carriers.

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5/8/03
Name: Rita Plamming
Address: 3301 Ano Mita Ave.
E-mail Address: RJF1934@cs.com
Telephone: 760-451-7112

Question/Comment:
I live @ Rancho La Scala. I have lived there for more than 16 years. I have not been aware of any disturbance in any way from the airport. At night, I sleep right next to an open window. No problems. Daytime - my problems.

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We live in Rancho Carlsbad. I don't mind the little noise we hear from time to time. I wouldn't like to see the airport get any larger or larger aircraft coming in or out. At the present time it isn't bad. I enjoy hearing a plane now and then. I'm more firms now.

"Leave the airport as is"

No more expansion.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
IF YOU ARE INTERESTED AND WANT YOUR VOICE HEARD PLEASE FILL OUT THIS FORM AND RETURN IT TO THE ADDRESSEE BELOW.

JOAN NICKLIN

Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-12-03
Name: W. G. ARNOLD
Address: 3432 DON ORTEGA DR.
E-mail Address: 
Telephone: 760-930-9659

Question/Comment:

There seems to be more flights than ever. We've lived here 4+ years. All flights should be required to adhere to the FAA flight paths for this airport.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Our lives are endangered night and day by low-flying planes and helicopters in violation of take off and landing procedures. They are told to take off and land over the ocean and uninhabited areas. Instead they are flying over our scenic park. I attended a meeting with the city and was shocked to learn that the pilots and owners of planes using this airport do not intend to correct their practices. Instead they insist on convenience for themselves without regard for our safety. With the recent increase in crashes and emergency landings of small planes and helicopters, our safety should be paramount.

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5/19/03
Name: Joyce Davison
Address: 3647 Depu Juan Dr.
E-mail Address: JSFoss5@adelphia.net
Telephone: 760-931-1135

Question/Comment:

When it was cold and my windows were closed I was never bothered by the planes flying overhead. Now that its warm and I sit out on my deck the noise of the small planes are really annoying, particularly on Sat. & Sun.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-8-03

Name: Wm H. + Susan Wilson

Address: 3472 Don Juan Dr., Carlsbad, CA 92008

E-mail Address: ________________________________

Telephone: ________________________________

Question/Comment:

Helicopters fly too low over Rancho Carlsbad Home Park. Jets should also gain altitude west of the park before proceeding east. Private propeller planes should also gain altitude before "buzzing" this area.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

**Date:** 5/6/03

**Name:** Robert P. Landes

**Address:** 5211 Don Ricardo, Carlsbad, CA 92008

**E-mail Address:** R100 RR 4L @ Aol.com

**Telephone:** 760-476-3431

**Question/Comment:**

I feel that the airport noise is managed very well. I live one mile from the runway. The light plane traffic flies over our house when in the traffic pattern and the noise is subdued to the point that it is not at all objectionable. The larger aircraft, including the jet aircraft, don't fly this pattern, but fly straight in to the runway from the Escondido area. As they descend to the runway, the jet aircraft reduce speed and noise. The departures do make more noise, but are climbing over an industrial area, then our highway and the ocean.

The airport is a valuable and necessary asset to our community and its (our) economy. The airport management is doing everything to reduce noise contamination and we should cooperate and cease complaining.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
IF YOU ARE INTERESTED AND WANT YOUR VOICE HEARD PLEASE FILL OUT THIS FORM AND RETURN IT TO THE ADDRESSEE BELOW.

JOAN NICKLIN

Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-3-03
Name: Gordon Duffin
Address: 5728 Don Rodolfo Dr.
E-mail Address: TheDuffins@adelphi.Net
Telephone: 760-804-9629

Question/Comment:

Noise - No Problem
Location - Just Fine
Runways - Limit to Just ONE
Curfews - Present Schedule OK
Convenience - Quite Desirable

New Houses under Take-Off pattern were well aware of Conditions before they purchased their homes.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 21 May 03
Name: B. Butler
Address: 3467 Don Lorenzo
         Carlsbad, CA 92008
E-mail Address: 
Telephone: (760) 931-1835

Question/Comment:
As it is now, there is not a problem. If there is airport opposition, it might be a different story. Then it might be appeal.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-21-03
Name: DIANE WARNER
Address: 3484 DON ALBERTO DR.
E-mail Address: 
Telephone: (760) 438-2132

Question/Comment:

I'VE LIVED NEAR THE AIRPORT FOR 18 YRS. THE NOISE PROBLEMS HAVE CHANGED BOTH TO THE GOOD AND BAD OVER THIS TIME. I HAVE FLOWN IN AND OUT OF PALOMAR IN COMMERCIAL AND PRIVATE PLANES. MY CONCERNS ARE: 1) LOW FLYING AIRCRAFT (MOSTLY HELICOPTERS) 2) PRIVATE AIRCRAFT NOT FOLLOWING RULES AND NOT FILING FLIGHT PLANS, 3) THE INCREASE IN LATE NIGHT FLIGHTS, HOW GOOD IS SECURITY?

A WHEN A LOW FLYING AIRCRAFT (MOSTLY AT NIGHT) CAUSES MY HOME TO SHAKE IT'S VERY UNNEARLING.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: June 1/03
Name: Joe Corwin
Address: 3429 Don Alberto Dr.
E-mail Address: 
Telephone: 760 929 1246

Question/Comment:

WE ARE DIRECTLY UNDER THE LANDING PATTERN
WE NEW THIS WHEN WE MOVED IN, NO PROBLEM,
BUT, LARGER AIRCRAFT IS NOT ACCEPTABLE.

NOT ONLY DANGEROUS BUT PROPERTY VALUE
WILL PLUMET.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@ursoscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date:       5-1-02               

Name:       MARY FISCHER      

Address:     5228 DON VALDEZ  Carlsbad 92008  

E-mail Address:                                          

Telephone:    760-431-8120                  

Question/Comment:

I believe the airport is an asset to the city, as a volunteer CUB, I
deal with tourists and hear their
time: this service

Most homes are occupied by owners moving in after airport build
the noise necessary cannot live

I lived in Point Loma some years

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/23/03
Name: NANCY LEE RICKERT
Address: 5336 DON RICARDO DR - CARLSBAD CA 92008
E-mail Address: 
Telephone: (760) 931-8124

Question/Comment:

I am from Buck Lake (Pennsylvania). It is so nice to go to the Palomar Airport to take the shuttle to LAX where I can get a flight back there.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-1-03
Name: GARRY FOSTER
Address: 3553 DON CARLOS DR. CARLSBAD 92008
E-mail Address: 
Telephone: (760) 929-8790

Question/Comment:

What are the current plans for airport expansion? Is this site likely to be proposed or chosen for the future relocation of San Diego Airport? Increased airport noise is not compatible with the present and planned residential construction in this area. How much weight will input from current homeowners carry?

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5/03/03
Name: Joyce F. Boyle
Address: 3441 Don Quiega Jr Carlsbad 92008
E-mail Address: Boyle1664@aol.com
Telephone: 760-591-1613

Question/Comment:

Being awakened on Sat., May 3, 2003 at 2:56 A.M.
Again at 3:27 A.M. (per digital clock).

Seeing loud jet planes makes a mockery
of the "Voluntary Airport Flight Hours Restriction".

Non-medical/mercy low flying helicopters
(Corporate owned?) consistently fly much
lower than 1,000 ft., resulting in shaking
window panes, mirrored closet doors. The safety
of residents should dictate a mandatory flight
path & hours of operation, with strict penalties
for violators— including the 1,000 ft. limit over
residential areas for helicopters.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
IF YOU ARE INTERESTED AND WANT YOUR VOICE HEARD PLEASE FILL OUT THIS FORM AND RETURN IT TO THE ADDRESSEE BELOW.

JOAN NICKLIN

Question/Comment Form
McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 05/16/03
Name: Pego Harris
Address: 5268 Don Valdez Dr, Carlsbad
E-mail Address: 
Telephone: 760-431-6183

Question/Comment:

I AM A RESIDENT CLOSE TO MCCLELLAN AIRPORT.
I AM CONCERNED WITH ANY EXPANSION WE HAVE.
A NOISE PROBLEM NOW WITHOUT ANY INCREASE IN ACTIVITIES. ALSO IT COULD INFLUENCE THE PROPERTY VALUES OF OUR HOMES.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
JOAN NICKLIN

Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5/1/03
Name: DONALD L. WILLSON
Address: 3427 DON ALVAREZ DR. CARLSBAD, CA. 92008
E-mail Address: 
Telephone: 760-431-8114

Question/Comment:

AS IT IS THE NOISE FROM
McClellan-Palomar Airport
DOES NOT BOTHER US.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: April 29, 2003
Name: Joe H. & Adele F. Glasson
Address: 3461 Don Carlos, Carlsbad 92008
E-mail Address: 
Telephone: (760) 446-0084

Question/Comment:
At this time the noise from small airplanes does not disturb us, we can hear them, yes, but the sounds are not too loud.

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/30/03
Name: W. A. Shafir
Address: 5376 Don Ricardo
E-mail Address: wahje@AOL.com
Telephone: 760-951-1519

Question/Comment:

Current noise levels are tolerable, primarily because of cessation of air traffic after 9:00 p.m. or before 8:00 a.m.

Just last week a plane came in (or out) at 5:00 A.M. ??

I hear an increase in daytime flights; would be unbearable

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: April 30, 2003
Name: Mary Anna Williams
Address: 3450 Don Artega, Carlsbad, Ca. 92008
E-mail Address: 
Telephone: 930-760-1311

Question/Comment:

The airplane noise does not bother me. I seldom hear your noise. Even if I heard airplane noise, I think I would have no right to complain. You were there first and I knew the airport was there when I moved to Rancho Carlsbad. Even if I heard noise I would not complain.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: April 30, 2003
Name: Bunny Thurman
Address: 3496 Don Alberto, Carlsbad, CA
E-mail Address: 
Telephone: 

Question/Comment:

The Airport is absolutely fine just the way it is. Don't change anything.
If a person is so nervous they can't stand the plane - they shouldn't be living here.
The size of the airport shouldn't handle more than two airlines.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 05/01/03
Name: Oliie Lieberman
Address: 3390 Don Quixote Dr., Carlsbad, CA 92008
E-mail Address: olieberman@msn.com
Telephone: 760-431-0274

Question/Comment:

I consider the airport an important service to our community. I do not find the noise incompatible, after all the airport was here first. If it is bothersome to some people, they should search for some other place to live.

O. Lieberman

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClennan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: ____________________________
Name: ____________________________
Address: __________________________
E-mail Address: ____________________
Telephone: ____________

Question/Comment:

We feel the Airport was here long before Ranchos Carlsbad and we made no complaints.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: May 5, 2003
Name: Jean M. Simmons
Address: 3473 Don Parfino Dr, Carlsbad, Ca 92008
E-mail Address: 
Telephone: 760-931-1163

Question/Comment:

I feel that the airport should be left alone - just as it is! It has been there a long time and any person who does not like having an airport in the vicinity should never have located near it. They should have purchased their home elsewhere. Surely they knew the airport was near by. I doubt if it is that big a deal. Noise-wise.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com

Jean M. Simmons
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/25/03

Name: [Handwritten]

Address: [Handwritten]

E-mail Address: [Handwritten]

Telephone: [Handwritten]

Question/Comment:

Mr. Fuller:

We live in Ranch Carlsbad. Every now and then a plane or helicopter comes down pretty low. The noise is at an acceptable level now, please don't let it get worse! The street traffic is bad enough.

Thank you for your help!

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form
McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: Sat, May 3, 2003
Name: Louis and Felene Carrara
Address: 3450 Don Carlos Drive - Carlsbad
E-mail Address: None
Telephone: 760-930-6563

Question/Comment:
We have lived in this home 2 1/2 years and can never say that the airport was ever a noise or a nuisance. My husband and I can not understand the reason for the complaint - some people have little else to do!! and they complain about everything! Hope others feel as we do! Good Luck!

Sincerely,
Louis and Felene Carrara

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 2 May 2003
Name: Hank Gibbia
Address: 5451 Don Felipe Drive
E-mail Address: 
Telephone: (760) 921-2537

Question/Comment:

If aircraft are shown as indicated on sketch, the noise abatement would be satisfied.

I’m a retired Air Force pilot with over 6000 hours flying recip and jets worldwide. 27 years active duty as a Lt. Colonel Command pilot.

HENRY B GIBBIA JR.
LTCol USAF RET
5451 DON FELIPE DR
CARLSBAD, CA 92008

Please send to:

Jeff Fuller
URS.
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com

[Diagram of runway and traffic pattern]
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: May 1, 2003
Name: Mildred W. Donley and James T. Donley
Address: 3302 Dan Riades Drive
E-mail Address: MIDMOMMA28@AOL.COM
Telephone: 760-431-9540

Question/Comment:

The airport was here long before any of these homes were built. Therefore, I don't think the residents should be whining about the noise. They weren't forced to move close to the airport.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: May 1, ’03

Name: Gretchen Merritt

Address: 3434 Don Carlos Dr.

E-mail Address: 

Telephone: 760-438-9657

Question/Comment:

It's nice for us "oldies" having the airport nearby - we like some help near in case of an emergency. The planes are not a disturbance. (helicopters)

My only comment is that the are so loud in their take-offs that one expects them to land right on the roof. A dreadful loud roar! We were here first and we think they could change that if they wanted to.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-30-03
Name: Marilyn D. Knutson
Address: 5255 Don Ricardo
E-mail Address: marilyn@deact.com
Telephone: 960-931-7807

Question/Comment:

Can airplane traffic be diverted so Rancho Carmelita is not on the overhead plan? Noise especially in PM is very loud.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 5-2-03
Name: Hildegarde S. Smith
Address: 5262 Don Miguel Drive
E-mail Address: HildegardeWEM78@aol.com
Telephone: 760-438-8313

Question/Comment:

My husband and I are very emphatic about retaining the airport in its present location. We would be agreeable to an expansion to allow additional flights. Our son and daughter use this airport frequently and we want this to continue.

Hildegarde Smith

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: S-1-03

Name: Ria Auert
Address: 3301 Don Pablo Dr.
Carlsbad, CA 92008

E-mail Address: 
Telephone: 760 - 918 - 6677

Question/Comment:

I LOVE OUR LITTLE AIRPORT.
I OFTEN FLY ON AMERICAN WEST EXPRESS. I LEAVE MY CAR NO HassLES NOISE WISE.
IT DOESN'T BOTHER WHERE I LIVE AT RANCHO CARLSBAD.
MY GRANDCHILDREN LOVE GOING TO THE AIRPORT CAFE FOR BREAKFAST. IT HAS BECOME ONE OF OUR TRADITIONS WHEN THEY ARE HERE VISITING ME.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-23-03

Name: Mr. & Mrs. Julian P. Phillips

Address: 5321 Don Ricardo Dr. Carlsbad, CA 92008

E-mail Address: JoyFish@aol.com

Telephone: 760-438-4194

Question/Comment: For living 3 miles from airport, there is not too much noise around our area. But there are still airplanes occasionally after 11pm at night. Hope this can be eliminated. Thank you for your concern.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: ________________
Name: ________________
Address: ________________
E-mail Address: ________________
Telephone: ________________

Question/Comment:
We enjoy the airport and its proximity to OCV home. Noise is no problem.
Keep it in its present location.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/15/03
Name: BABETTE W. GILBERT
Address: 3555 DON JUAN DR, CARLSBAD, CA 92008
E-mail Address: 
Telephone: (760) 438-9349

Question/Comment:

I think Palomar Airport is just fine. For people moving into the area they should be made aware of the air traffic & if they object they should move somewhere else!

I don't believe planes should have to reduce their power & endanger the crews or passengers.

Let's hire the realists do their jobs!

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/16/03

Name: GEORGE HILL

Address: 5348 DON RICARDO DR. ; CARLSBAD 92008

E-mail Address:

Telephone: 760-931-7961

Question/Comment:

Loading and take-off patterns & restrictions should be mandatory.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/15/03
Name: IRWIN GOLDSTEIN
Address: 5135 Don Ricardo Dr - Rancho Carlsbad
E-mail Address: 
Telephone: (760) 603-0001

Question/Comment:

PLANES FLYING TOO EARLY IN AM
& TOO LATE IN PM
SHERIFFS PATROL PLANE IS TOO
NOISY & TOO OFTEN ALSO

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4/17/03

Name: Floyd M. Schenk
3467 Don Ortega Dr # 376
Carlsbad, CA 92008

Address:

E-mail Address:

Telephone: 760-438-4054

Question/Comment: 17 YEAR RESIDENT

WE LIVE IN RANCHO CARLSBADHorizone Home Park (8000 Glenarm Rd), we consider the airport a good amenity to the area and an occasional convenience.

I'm sure it considered an aid to the corporate planes that serve the thriving industrial/commercial surrounding the airport.

(The airport was here long before the complainers!)

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: ______________________

Name: ______________________

Address: ______________________

E-mail Address: ______________________

Telephone: ______________________

Question/Comment:

WHAT'S HAPPENING? DON'T TELL US

THE WHINEY ANTI-AIRPORT COMPLAINERS ARE TRYING TO SHUT DOWN MCCLELLAN-Palomar. (AS IN OCEANSIDE)

WE LIKE THE PALOMAR A/P JUST AS IT IS & JUST WHERE IT IS. WE WILL BE USING IT IN 2 WKS TO THEN FLY FROM Boise ID.

NO PROBLEMS!!!

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form
McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: April 15, 2003
Name: E. E. ROBINSON
Address: 5117 DON RODOLFO Dr
E-mail Address: eeroft80@cox.com
Telephone: 760-431-0222

Question/Comment:

Two or six years ago I wrote a letter to each of the City Council members to complain about the frequency and noise from the airport. The reply was that it was up to the Airport Committee, which meets periodically. The noise and frequency are worse now than before - help!

Low flying helicopters and fixed wing are especially annoying.

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: April 14, '03
Name: Minnie Thurman
Address: 3496 Don Alberto Dr, Rancho Carlsbad
E-mail Address: 
Telephone: 

Question/Comment:

1. The airport is just fine, the decibel is!
2. I have lived here 16 years and it has never bothered me.
3. People that are nervous or irritable should never move near an airport. It is their own fault if the noise bothers them.

Don't add on, change our airport!!

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
Question/Comment Form

McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-16-03

Name: Bill Arnold

Address: 3432 Don Ortega Dr, Carlsbad 92008

E-mail Address: WGA250N@AOL.COM

Telephone: 760-930-9659

Question/Comment:

All planes should be required to follow FAA flight paths as commuter flights are required to do.

Please send to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 14 Apr 03
Name: Bruce Enigsmburg
Address: 5163 Don Mata Dr, Carlsbad CA 92008
E-mail Address: 
Telephone: 

Question/Comment:

-no problem with airport noise-

Please send to:

Jeff Fuller
URS
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San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-17-03

Name: [Signature]

Address: 5209 Don Valley Dr Carlsbad, CA 92008

E-mail Address: [Signature]

Telephone: 760-918-0194

Question/Comment:

I have lived in Carlsbad for 3 years now. I came from San Clemente when I had no aircrafts in flight over the town so I never heard airplanes. I don't find it annoying to hear aircrafts flying over head, and I don't feel that they pollute the air as much as the car traffic on El Camino. They need to be a investigation on this not the aircrafts that fly in and out of Mclellan-Palomar Airport. After all the airport was here long before most of the houses.

Please leave the airport where it is. Thank you.

Please send to:

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Fax: 619-293-7920
jeff_fuller@urscorp.com
This is to introduce myself. I participated in the Palomar Airport Citizens Action Group PAR 2000 Roundtable as a representative of Travis Point House Owners Assn., which is located in the north surrounding area of the airport.

Enclosed is a copy of a draft report that I submitted to PAR 2000.

Your attention is directed to:

Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff_fuller@urscorp.com
the hilly area.

End (1) is a copy of "Plane News", which is the official news letter of San Diego County Airports.

As noted in end (1), you can see that departing general aviation aircraft are first following the departure procedure in end (2). This is because the FAA control tower at the airport directs departing general aviation aircraft to deviate from the procedure, and make a right climbing turn when airborne. Third departure route causes aircraft to fly over the residential areas in the north area of the airport. See home owners newsletter column on noisy aircraft.

Please advise me when you will have your next meeting on McClellan-Palomar Airport. Post 150 study.
FROM: John Bertoldi, 760-9299759

TO: PAR 2000

SUBJ. Low Flying Aircraft and Noisy Flying Aircraft

REF (a) Recommendations to PAR 2000" by Terry Davis, dated October 25, 2000.


1. The extension of runway 24 (R24) another 600 feet to the east as suggested in reference (a) will only exacerbate the present conditions of low flying and noisy flying aircraft that depart from R24. We are speaking of VFR departures on R24 involving general aviation single and twin engine aircraft that make an early right turn after take off to a northeast course heading. This results in a flight path over the industrial and residential areas north of the airport. Many of these aircraft do not reach traffic pattern altitude before reaching this area. Moreover, these aircraft are noisy, because they are using high power settings so that they can reach their designated or desired flight altitude as soon as possible. As experienced pilots ourselves, we can attest that some of these aircraft would be hard pressed to make a safe emergency landing anywhere in this hilly area. We are also concerned with the FAA Control Tower practice of granting early departure turns after takeoff when the enclosure (1) airport procedures requires a straight out departure. This will be discussed in more detail in paragraph 4. below.

2. We respectfully challenge the reliability of using the data from the airport noise abatement system in its present configuration as the exclusive source for determining noise violations. We do not, however, question the integrity of the equipment itself. For example the response from the airport noise abatement program monitor to reports of noisy flying aircraft is always that the questioned aircraft is in compliance with the system noise parameters. We say that this cannot always be true, because the nearest sensing equipment is located several miles from the place of infraction in the aforesaid residential area. Furthermore, the monitor could not produce for our review a reliable calibrated noise attenuation table that compensates for this anomaly.

3. With respect to low flying aircraft, this anomaly is also true for the FAA Radar Altitude Measuring Equipment, which likewise is located several miles from the airport area. The data produced by this equipment is used by the aforesaid noise abatement monitor as the exclusive source for determining aircraft flight altitudes in the airport control area. We question why the reports of low flying aircraft over the aforesaid residential area that are based on observations of experienced pilots who reside in that area
not being accepted as reliable data for the purpose of the PAR 2000 study; and why the reliance on the FAA Radar Altitude Measuring Equipment as the exclusive determinant of altitude of low flying aircraft in view of the fact that radar signals, as in the case of noise signals, are also distorted and scattered over distance from the sensing equipment. Further, a departing climbing aircraft is a dynamic flight signature since altitude and position are constantly changing.

4. We call to the attention of PAR 2000 the winter issue of the County of San Diego "PLANE NEWS", Enclosure (1). This publication, as stated therein, is the official newsletter of the San Diego County Airports. This winter issue sets forth the specific noise abatement and aircraft departure procedures for McClellan-Palomar airport. One flight procedure, however, that is not mentioned is the option to make early right departure turns after takeoff from R24 when authorized by FAA airport traffic control tower. This is the reason why there are low flying aircraft and noisy flying aircraft violations over the aforesaid residential area. As a matter of interest, the County of San Diego and possibly other governmental agencies could be held liable in the event of a fatal aircraft accident in this industrial and residential area. Also the testimonial information and records of PAR 2000 would not be friendly for a defense in a liability trail or investigation.

5. The conclusion reached from the above discussion is that: (i) low flying and noisy flying aircraft is basically caused by the FAA Air Traffic Control Tower's practice of granting early right VFR turns after takeoff for north-east departures from R24; and (ii) the attitude and behavior of pilots is to disregard the purpose of the airport noise abatement procedures. The McClellan-Palomar Airport has addressed the early right turn departures from R24 in a previous PAR 2000 meeting. There it was stated that early departure turns are necessary to maintain safe departing aircraft intervals during busy flight operations, and during times when there are a wide range of aircraft performance awaiting takeoff clearance.

6. Recommendations: That PAR 2000 consider the following as a way of mitigating the low flying aircraft and noisy flying aircraft problem:

   (1) During busy flight operations, consider grouping or holding aircraft that are requesting taxi clearance from Ground Control by aircraft performance type in so far as possible. For example, (a) training school aircraft; (b) general aviation aircraft that are departing the airport on flight; (c) twin engine piston aircraft (d) commuter aircraft; and (e) jet aircraft. This would give each type of aircraft its own air space on departing the airport; and which would be in compliance to the R24 departure procedures published in the aforesaid PLANE NEWS. Early authorized right turns after takeoff can therefore be reduced to minimum, and used only when it is considered when necessary for ground and flight safety.
(2) Consider adopting the recommendation made in Enclosure (2) as an alternative to the early right turn departures. This would change R24 right turn VFR departures, when authorized, to a climbing right 45 degree turn to a heading of 285 degrees after takeoff, and climbing to an altitude of 1000 feet AGL before making a northeast course turn over the Agua Hedionda Lagoon wet lands and Cannon road.

______________________________
John Bertoldi
PALOMAR NOISE STUDY to BEGIN

A unique process to ensure full public input regarding McClellan-Palomar Airport’s aircraft-related noise impacts is now in place. A Part 150 Noise Compatibility Study for the Airport pursuant to receipt of an FAA-sponsored grant will be underway this fall.

While such a study typically runs 18 to 24 months, the County anticipated the need for full public input and conducted a “roundtable” effort to ensure a quality product to address community concerns.

The PAR 2000 (Palomar Airport Roundtable) Final Report was approved for inclusion in the study by the County Board of Supervisors in late April. This action allows the airport to process recommendations that may be achievable within current County resources. One recommendation was to hire a full time Environmental Noise Specialist for McClellan-Palomar. Russ Couchman, a pilot with a degree in Aviation Management was appointed in November. Since the Board’s action, Couchman met with various pilot groups to discuss aircraft operations-related recommendations from the report. He is also currently working on the PAR 2000 recommendation to place a noise abatement sign depicting the Runway 24 Alpha departure at the approach end of Runway 24 clearly visible to departing pilots. The Alpha departure calls for a heading of 250 degrees off Runway 24 until 1/2 mile offshore.

Other Voluntary Noise Abatement Procedures request pilots to hold turns until reaching 800’, and to maintain 2000’ until descending to pattern altitude, using the north pattern when possible. Couchman interfaces with airport users, pilots, the general public, and businesses on the airport. He also maintains and operates a sophisticated flight tracking/noise monitoring system.

Ramona Runway/Taxiway Project Completed

With a simple scissors snip, San Diego District 2 Supervisor Dianne Jacob brought to completion the new 1,000-foot runway extension at the Ramona Airport.

The extension allows larger fire fighting aircraft to take off

Feeling Secure with OB

Gates at County airports are locked for good reason. Access is restricted to facilities. Security is the purview of Olivier “OB” Brackett.

As Airport Security and Safety Coordinator, OB develops security plans for airports. Included is ensuring airport fences are properly installed and in good condition, that gates and locks work properly and preventing runway incursions. He also oversees private security officer contracts.

OB is no stranger to security or airports. He spent 20 years in the Marine Corps, where his first duty was armed protection of United States assets and his second was as an air traffic controller. But he thinks he’s found a home at County airports.

“I love it. There’s a real dedication among everybody to provide good customer service here,” he said. “Having come from the Marine Corps where commitment is a big part of what we’re about, the level of commitment at the County is right in step with what I’m used to.”

Olivier Brackett coordinates security and safety at County Airports.

Supervisor Dianne Jacob cuts ribbon for Ramona Airport runway extension with the help of other local dignitaries.

with heavier loads. Ramona is home to the California Department of Forestry and U.S. Forest Service aerial fire attack base, the busiest such facility in the nation.

The $6 million project includes runway and taxiway extension and resurfacing, new run-up area at the east end of the taxiway, new compass rose, realignment of the south taxiway and drainage improvements.

End (2)
Noisy Flying Aircraft Over Evans Point
by John Bertoldi

To report noisy flying aircraft, call the McClellan–Palomar Airport at 760-431-4646 or 760-431-1328. Follow the menu instructions – that is, Press 3 and Press 1. You will be asked to state: name, address, phone number, time, type of aircraft, direction of flight, and any other descriptive information that would help identify violating aircraft. Also, it would be helpful if you stated that the call is made from Evans Point Home Owners Association.

It is important to report a noise complaint as soon as you can.

With respect to type of aircraft, almost all noisy aircraft over Evans Point are small, single engine and a few small twin engine aircrafts. If you are not familiar with the type of aircraft, such as a Cessna 182, or a Pipe Cherokee 140 for example, give your best description, such as a high wing, red and white aircraft, or a low wing, blue and white aircraft.

With respect to direction of flight, all aircraft over Evans Point are either departing the airport, or will be remaining in the airport flight traffic pattern.

Departing aircraft will be flying in a north-easterly direction over Evans Point towards Calavera Hills and Vista.

Aircraft remaining in the airport flight traffic pattern will be in an easterly direction towards San Marcos.

You might be interested to know that the FAA aircraft departure procedure from McClellan–Palomar Airport is to fly on a straight-out west heading of 250° degrees until one-half mile off shore. Federal Aviation Administration (FAA) Control Tower at the airport will deviate from this established procedure during periods of high airport traffic activity, and will direct departing aircraft when airborne, to turn to a north-east heading, which results in flying over Evans Point. Furthermore, this change requires the pilot to use high engine power to safely climb away from the airport. Hence, the noisy aircraft. This is analogous to driving your automobile without a muffler in full low gear and a floored gas pedal.

In 2002, Evans Point and other home owner associations affected by aircraft noise filed complaints with McClellan–Palomar Airport. A public hearing and study on the impact of aircraft noise on the surrounding airport communities was conducted over a nine month period. A report was issued; however, in my opinion, it did nothing to reduce the noise of aircrafts over Evans Point. A personal note: aircraft pilots are just as inconsiderate as automobile drivers. Your telephone complaints, however, are recorded and reviewed at the airport, and supposedly reported to the FAA and appropriate county officials.
Question/Comment Form
McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study

We want to hear from you. Please record your question or comment and include your name, mailing address, e-mail address and telephone number:

Date: 4-15-03
Name: Dorothy Ricci
Address: 3457 Don Carlos Drive Carlsbad, CA 92108
E-mail Address: dotricci@att.net if you will be sending an e-mail, I will need to know the name it will be sent from. I delete all e-mails that I do not recognize.
Telephone: 760-922-8850

Question/Comment:
Well this is interesting because I was just standing out front watching cars go by and planes fly over... I have watched planes in awe as far back as my memory bank will allow me to withdraw. Daddy and I would gaze toward the sky as soon as we could hear their approach... we would go to the airport to take a ride in a Piper Cub or just sit and watch take offs and landings.

When we really needed an airplane fix we would go to the big airport and watch the triple tailed, grand CONSTELLATION ... We wondered how that big plane could get off the ground...

As for the noise pollution caused by the planes leaving, arriving and playing around Palomar Airport... the ones that are here are OK with me, but please don't let them bring in any bigger ones. I lived down by Lindberg Airport and North Island for eight years and some of them would shake a person out of their socks. Carlsbad is a quiet community... PLEASE keep it this way.

Thank you for your time and concern

Please send to:
Jeff Fuller
URS
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619-294-9400
Fax: 619-293-7920
jeff Fuller@urscorp.com
## Table H-1

### First Workshop

#### Summary Of Public Written And Verbal Comments

<table>
<thead>
<tr>
<th>Comment Category</th>
<th>Number Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there regulations regarding plane engine noise levels on ground and on take off?</td>
<td>1</td>
</tr>
<tr>
<td>Want/like the airport where it is/how it operates/convenience, do not change/expand</td>
<td>25</td>
</tr>
<tr>
<td>Not very loud, noise is not a bother</td>
<td>10</td>
</tr>
<tr>
<td>Eliminate night flights</td>
<td>1</td>
</tr>
<tr>
<td>Would be agreeable to expansion to allow more flights</td>
<td>2</td>
</tr>
<tr>
<td>People moving into the area should be notified of noise</td>
<td>1</td>
</tr>
<tr>
<td>Plans should not have to reduce power and endanger crews or passengers</td>
<td>1</td>
</tr>
<tr>
<td>Landing and take-off pattern restrictions should be mandatory</td>
<td>3</td>
</tr>
<tr>
<td>Planes flying too early/late</td>
<td>6</td>
</tr>
<tr>
<td>Sheriff’s Patrol Plane is too noisy and too frequent</td>
<td>1</td>
</tr>
<tr>
<td>Airport was here before many residences</td>
<td>8</td>
</tr>
<tr>
<td>Airport is considered an aid to surrounding commercial/industrial area, helps economy</td>
<td>3</td>
</tr>
<tr>
<td>Low flying helicopters are too frequent/too noisy</td>
<td>8</td>
</tr>
<tr>
<td>All planes should be required to follow FAA flights paths as commercial flights are required to do</td>
<td>2</td>
</tr>
<tr>
<td>Aircraft are not following departure procedures</td>
<td>2</td>
</tr>
<tr>
<td>Low flying aircraft are dangerous</td>
<td>2</td>
</tr>
<tr>
<td>Jets and propeller planes are too low, should gain altitude</td>
<td>1</td>
</tr>
<tr>
<td>Limit planes to one runway</td>
<td>1</td>
</tr>
<tr>
<td>New houses under take-off pattern were aware of conditions before they purchased their home</td>
<td>1</td>
</tr>
<tr>
<td>Expansion concern</td>
<td>3</td>
</tr>
<tr>
<td>Property Values</td>
<td>2</td>
</tr>
<tr>
<td>Fly a specific traffic pattern (specific pattern is suggested)</td>
<td>1</td>
</tr>
<tr>
<td>Divert traffic so it is not overhead of residence</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>86</strong></td>
</tr>
</tbody>
</table>
Newspapers
Public turns out for airport noise

By: TIM MAYER - Staff Writer

CARLSBAD — Consultants and airport officials on Monday said flight noise from McClellan-Palomar Airport has improved since 1990, but some people who live near the airfield said they sometimes can’t hear themselves talk.

Consultants from San Diego-based URS Corp. disclosed the results of a year-long study during a public workshop in which they displayed maps showing sound measurements around the airport located in Carlsbad since the 1950s.

The $250,000 study paid for by the Federal Aviation Administration is part of an effort to update the last study done 14 years ago and will be used to develop a report on how noise problems may be reduced, said study project manager Jeff Fuller.

That report on how to make the airport more compatible with the surrounding community should be completed and submitted to the Federal Aviation Administration next February.

The federal agency has the final say as to which recommendations will be adopted, Fuller said, "and what we’re recommending must comply with FAA rules and regulations. They have to have some sort of qualitative benefit.”

In no case "is it going to eliminate the noise from the airport," Fuller warned an audience of about 60 at the city's Faraday Center.

Fuller said the latest study shows that in the area west of the airport, the direction which most aircraft take off, the noise level has actually decreased from what was found in 1990.

The critical zone is that in which people on the ground would experience noise of 65 decibels or higher — about the noise level if you lived 50 feet from a busy street, Fuller said.

Sixty-five decibels is the point at which state, federal and local guidelines say it becomes...
incompatible with residential areas, Fuller said.

Fuller said consultants found there are no homes within that 65 decibel range.

Airport manager Floyd Best said reasons for the decrease include the fact many new airplanes are much less noisy than their predecessors. Increased efficiency also allows them to climb faster and more steeply after takeoff, reducing the impacts on neighborhoods.

Also, since 1990, the airport managed to get the Navy to move a private air contractor ---- which had a noisy fleet of aircraft operating around the clock ---- out of Palomar to a military base, first Miramar and then to North Island.

"They took some very noisy aircraft and moved them away and that addressed the issue of nighttime flights, which was a great irritant," Best said.

With 204,000 takeoffs and landings last year, Best said the airport was third busiest in the county behind Lindbergh and Montgomery fields.

Some local residents said Monday the aircraft noise is still too loud at the county-owned airport.

"I doubt if anything will come of this (study)," said Chris Smoczynski, who lives west of the Palomar Field. "The noise is very bothersome."

Alison Parker, who lives near the airport, said "I can't talk on the phone inside my home."

Parker said the solution would be to change flight paths so planes taking off to the west would head out over the ocean before turning north or south. Now, she said, aircraft turn directly over her home.

John and Anita Dwyer, who live on the northern edge of Encinitas, said the biggest problem they have is with helicopters, at least some of which they are sure come from Palomar.

"If I'm sitting on my deck talking on the telephone, I can't hear," she said.

John Dwyer said the helicopters fly so low that from their blufftop home they are often looking down at the helicopters wave hopping along the beach.

Robin Gartman, a private pilot, said she lives six miles away in La Costa and doesn't mind the noise. In fact, she said she worries if she doesn't hear anything because "it means there is a problem on the runway."

Terry Kemp, who lives in Rancho Carrillo five minutes east of the runway, said he also doesn't mind the noise.

"I live south of the approach path, so there's not a whole lot of noise," he said. "Plus, I am a private pilot, so I'm a little more tolerant."

The public can view the maps and find other information on the study by contacting www.co.san-diego.ca.us/dpw/airports/mcpal.htm.

Consultants are asking the public to comment prior to April 14 by fax at (619) 293-7920 attention Jeff Fuller, or via e-mail at sdo@urscorp.com.

Contact staff writer Tim Mayer at (760) 901-4043 or tmayer@nctimes.com.
Palomar airport's neighbors sound off on jet noise

Discussion part of 3-year federal study

By Elena Gaona
UNION-TRIBUNE STAFF WRITER

March 31, 2004

CARLSBAD — Neighbors of McClellan-Palomar Airport said Monday night that the rumbling from planes is constant even though they're not in the noise-impact area.

Nearly 50 residents attended the second public comment session at Faraday Center in a three-year noise study being conducted at the airport.

"It does very much frustrate me to see all these beautiful charts that seem to imply no one else is affected," said P.J. DeMaris of Vista, who said she has trouble talking on the phone because so many planes fly near her house.

"I'm seriously thinking of selling my house because I just can't tolerate it anymore."

The Federal Aviation Administration funded the noise study to ensure the airport remains compatible with its surroundings, said Jeff Fuller of URS, the San Diego environmental engineering firm that is conducting the study.

Engineers mapped current noise contours and predicted future ones based on average takeoffs and landings at the airport.

The firm found there were 204,155 takeoffs and landings in 2002. The projection for 2008 is 232,661. For 2013, the number is 259,528.

The noise contours expand in waves around the airport near the center of the city, but people at the meeting complained of the noise being heard as far away as Escondido and Encinitas.

"I can't sit out on the deck because of the noise," said Anita Dwyer of Leucadia. "This is all summer. Yesterday because it was a beautiful day, it was a nightmare. Please, we need help. It's just horrible."

Peter Drinkwater, director of airports for the county, pointed out that the noise maps are based on average number of flights, not individual plane operations. He said the airport can do a better job of communicating with pilots to make them fly at the right altitudes and the right times.

The study is headed to the FAA to develop a plan for future operations at the airport by 2005, and is intended to make sure that the airport is generally compatible with its neighborhood.

An airport is noisy, Fuller said.

"It is not a process to eliminate airport noise," Fuller said. "So I don't want to give some people hope. It is not
going to eliminate the noise."

The noise maps and details of the study are available on the airport's Web site: www.co.san-diego.ca.us/dpw/airports. Through April 15, residents can view the noise maps and then submit comments in writing that will be forwarded to the FAA.

- Elena Gaona: (760) 476-8239; elena.gaona@uniontrib.com

Find this article at:

☐ Check the box to include the list of links referenced in the article.
You are invited to attend the second of three public meetings scheduled to provide information and gather public input on the McClellan-Palomar Airport Part 150 Airport Noise Compatibility Study.

At this meeting, the following information will be presented:

- Noise exposure map of existing conditions
- Five-year and 10-year projected noise exposure maps
- Information used to develop the noise exposure maps

With authorization and funding from the Federal Aviation Administration (FAA), the County of San Diego is preparing a Federal Aviation Regulation Part 150 Noise Compatibility Study for McClellan-Palomar Airport. The County hired URS, an airport consulting firm, to conduct an analysis of air traffic utilizing the airport to interface with the surrounding community and to update the airport’s Noise Compatibility Program. The goal of the Study is to facilitate the best possible relationship between the airport and surrounding residential and business communities by minimizing aviation noise impacts and maintaining land use compatibility. The major components of the Study include the development of noise exposure maps and the creation of a noise compatibility program, which includes public involvement. During this process, results will be presented to the FAA for review, comments and approval.

The FAA wants your input! Please attend this public meeting on Monday, March 29 from 6 to 9 p.m. at the City of Carlsbad’s Faraday Center to learn more about the Part 150 Study and provide input.

The noise exposure maps and other relevant information pertaining to the Noise Compatibility Study may be found on

www.co.san-diego.ca.us/dpw/airports/mcpal.htm

URS Corporation • 1615 Murray Canyon Road, Suite 1000 • San Diego, CA 92108
McClellan-Palomar Airport • Department of Public Works • 2198 Palomar Airport Road • MS N137 • Carlsbad, CA 92008
Public Meeting Notice
for McClellan-Palomar Airport

Noise Compatibility Study Update
<table>
<thead>
<tr>
<th>Attention: Pam Slater</th>
<th>Attention: Bill Horn</th>
<th>Attention: Jerome Stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Board of Supervisor (Dist. 3)</td>
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<td>Mayor</td>
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<tr>
<td>County Administration Center</td>
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<td>City of Encinitas</td>
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<tr>
<td>1600 Pacific Highway, Room 335</td>
<td>1600 Pacific Highway, Room 335</td>
<td>505 S. Vulcan Avenue</td>
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<tr>
<td>San Diego, CA 92101</td>
<td>San Diego, CA 92101</td>
<td>Encinitas, CA 92024-3633</td>
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<td>Attention: Maggie Houlihan</td>
<td>Attention: Christy Guerin</td>
<td>Attention: James Bond</td>
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<td>Deputy Mayor</td>
<td>Council Member</td>
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<td>Attention: Dan Dalager</td>
<td>Attention: Pat Murphy</td>
<td>Attention: Vance Morris</td>
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<tr>
<td>Council Member</td>
<td>Planning &amp; Building Director</td>
<td>Mayor</td>
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<td>City of Encinitas</td>
<td>City of Encinitas</td>
<td>City of Vista</td>
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<td>Vista, CA 92085</td>
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<tr>
<td>Attention: Paul Campo</td>
<td>Attention: Bob Campbell</td>
<td>Attention: Doris Calvo</td>
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<tr>
<td>Mayor Pro Tempore</td>
<td>City Council</td>
<td>Secretary to the City Council</td>
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<tr>
<td>Attention: Judy Ritter</td>
<td>Attention: Stephen Gronke</td>
<td>Attention: Robin Putnam</td>
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<td>City Council</td>
<td>City Council</td>
<td>Director of Community Development</td>
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Attention: Henry Schubach, Manager
Schubach Aviation
2006 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Ginna Reyes, Manager
Western Flight
2210 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Scott Walker, President
Elite Jet
5962 La Place Ct.
Carlsbad, CA 92008

Attention: Donald Graham
Station Manager
United Express (Skywest)
2198 Palomar Airport Rd.
Carlsbad, CA 92008

Attention: Ken Zirda
Flying Samaritan Group
5208 Sand Dollar Ct.
San Diego, CA 92130

Attention: Lason Brown
President
Exclusive Charter Services
3753 John Montgomery Drive
San Diego, CA 92123

Attention: Sandy Detherage
Air Traffic Controller, Palomar Airport
2200 Palomar Airport Road
Carlsbad, CA 92008

Attention: Treena Smith, Manager
America West Express, Commuter Terminal
2198 Palomar Airport Road
Carlsbad, CA 92008

Attention: Robert Wolter
Civic Helicopters
2192-H Palomar Airport Road
Carlsbad, CA 92008

Attention: Mel Holmes, President
Grey Eagle Aviation
2186 Palomar Airport Road
Carlsbad, CA 92008

Attention: George McJimsey, President
Pinnacle Aviation Academy
2016 Palomar Airport Road
Carlsbad, CA 92008

Attention: Theresa Terrel, Vice President
Orion Aviation Inc.
2138-B Palomar Airport Road
Carlsbad, CA 92008

Attention: Misty Pawlowski
Operations Supervisor
Eastridge Group
5650 El Camino Real, Suite 101
Carlsbad, CA 92008

Attention: Jack Williams
Aviation
6714 Bamboury Place
Carlsbad, CA 92009

Attention: Wayne Dauber
South Seas
P.O. Box 5035
Rancho Santa Fe, CA 92067

Attention: Greg Hein
Aviation Resource Group
29928 Lilac Road
Valley Center, CA 92082

Attention: Nelson Carrick
Palomar Fuels
2006 Palomar Airport Road
Carlsbad, CA 92008

Attention: Gordon Sieler, Resident
5082 Dassia Way
Oceanside, CA 92056-7400

Attention: Leslie Jantz, Resident
1207 Countrywood Lane
Vista, CA 92083

Attention: Ron Sea, Resident
6423 Merlin Drive
Carlsbad, CA 92009

Attention: Brad Lund, Resident
6708 Lonicera
Carlsbad, CA 92008

Attention: Tom Foster, Resident
2289 Bryant Drive
Carlsbad, CA 92008

Attention: Francis Bonner, Resident
6503 Friendly Place
Carlsbad, CA 92009

Attention: Robert Pat, Resident
2770 Sunny Creek Road
Carlsbad, CA 92008

Attention: Terence A. Davies, Resident
1021 Goldeneye View
Carlsbad, CA 92009

Attention: James R. Wright
Ocean Hills Country Club
6017 Piros Way
Oceanside, CA 92056-7266

Attention: Lee Baldridge, Resident
1139 Cabot Court
Vista, CA 92083

Attention: Principal
Aviara Oaks Elementary School
6900 Ambrosia Lane
Carlsbad, CA 92008

Attention: Principal
Aviara Oaks Middle School
6880 Ambrosia Lane
Carlsbad, CA 92008

Attention: Principal
Buena Vista Elementary School
1330 Buena Vista Way
Carlsbad, CA 92008
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<td>Knob Hill Elementary School 1825 Knob Hill Road San Marcos, CA 92069</td>
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| **Attention: Principal**
| Paloma Elementary School  
| 660 Camino Magnifico  
| San Marcos, CA 92069 | **Attention: Principal**
| Richland Elementary School  
| 910 Borden Road  
| San Marcos, CA 92069 | **Attention: Principal**
| San Marcos Academy  
| 300 W. San Marcos Blvd.  
| San Marcos, CA 92069 | **Attention: Principal**
| San Marcos High School  
| 1615 W. San Marcos Blvd.  
| San Marcos, CA 92069 | **Attention: Principal**
| San Marcos Middle School  
| 650 W. Mission Road  
| San Marcos, CA 92069 | **Attention: Superintendent**
| San Marcos School District  
| 1 Civic Center Drive, #300  
| San Marcos, CA 92069 | **Attention: Principal**
| Twin Oaks Elementary School  
| 1 Cassou Road  
| San Marcos, CA 92069 | **Attention: Principal**
| Twin Oaks High School  
| 158 Cassou Road  
| San Marcos, CA 92069 | **Attention: Principal**
| Woodland Park Middle School  
| 1270 Rock Springs Road  
| San Marcos, CA 92069 | **Attention: Principal**
| Alta Vista Continuation High  
| 1575 Bonair Road  
| Vista, CA 92084 | **Attention: Principal**
| Beaumont Elementary School  
| 550 Beaumont Drive  
| Vista, CA 92084 | **Attention: Principal**
| Bobier Elementary School  
| 220 W. Bobier Drive  
| Vista, CA 92084 | **Attention: Principal**
| Breeze Hill Elementary School  
| 1111 Melrose Way  
| Vista, CA 92084 | **Attention: Principal**
| California Avenue School  
| 215 W. California Avenue  
| Vista, CA 92084 | **Attention: Principal**
| Casita Elementary School  
| 260 Cedar Road  
| Vista, CA 92084 | **Attention: Principal**
| Crestview Elementary School  
| 510 Sunset Drive  
| Vista, CA 92084 | **Attention: Principal**
| Grapevine Elementary School  
| 630 Grapevine Road  
| Vista, CA 92084 | **Attention: Principal**
| Guajome Park Academy  
| 2000 N. Santa Fe Avenue  
| Vista, CA 92084 | **Attention: Principal**
| Lincoln Middle School  
| 151 Escondido Avenue  
| Vista, CA 92084 | **Attention: Principal**
| Monte Vista Elementary School  
| 1720 Monte Vista Drive  
| Vista, CA 92084 | **Attention: Principal**
| Olive Elementary School  
| 836 Olive Avenue  
| Vista, CA 92084 | **Attention: Principal**
| Palomar High School  
| 1401 Palomar Place  
| Vista, CA 92084 | **Attention: Principal**
| Rancho Buena Vista High School  
| 1601 Longhorn Drive  
| Vista, CA 92084 | **Attention: Principal**
| Sierra Vista High School  
| 325 E. Bobier Drive  
| Vista, CA 92084 | **Attention: Principal**
| Vista High School  
| 1 Panther Way  
| Vista, CA 92084 | **Attention: Superintendent**
| Vista Unified School District  
| 1234 Arcadia Avenue  
| Vista, CA 92084 | **Attention: Principal**
| Washington Middle School  
| 740 Olive Avenue  
| Vista, CA 92084 | **Attention: Library Manager**
| Carlsbad City Library  
| 1775 Dove Lane  
| Carlsbad, CA 92009 | **Attention: Library Manager**
| Carlsbad Library  
| 3333 Harding St., #11  
| Carlsbad, CA 92009 | **Attention: Library Manager**
| Oceanside Mission Branch Library  
| 3861 Mission Ave., #B1  
| Oceanside, CA 92054 |
B. Butler
3467 Don Lorenzo
Carlsbad, CA 92008

Diane Warner
3484 Don Alberto Drive
Carlsbad, CA 92008

Joe Corwin
3479 Don Alberto Drive
Carlsbad, CA 92008

Mary Fischer
5228 Don Valdez Drive
Carlsbad, CA 92008

Nancy Lee Rickert
5336 Don Ricardo Drive
Carlsbad, CA 92008

Garry Foster
3553 Don Carlos Drive
Carlsbad, CA 92008

Joyce F. Boyle
3441 Don Ortega Drive
Carlsbad, CA 92008

Reed Harris
5268 Don Valdez Drive
Carlsbad, CA 92008

Donald L Wilsson
3427 Don Alvarez Drive
Carlsbad, CA 92008

Joe H. & Adele F. Glasson
3461 Don Carlos Drive
Carlsbad, CA 92008

W.A. & Jean Heifrich
5376 Don Ricardo Drive
Carlsbad, CA 92008

Mary Anna Williams
3450 Don Ortega Drive
Carlsbad, CA 92008

Bunny Thurman
3496 Don Alberto Drive
Carlsbad, CA 92008

Olive Lieberman
3346 Don Quixote Drive
Carlsbad, CA 92008

Mr. & Mrs. Melvin Curtis
3450 Don Jose Drive
Carlsbad, CA 92008

Jean M. Simmons
3473 Don Parfirio Drive
Carlsbad, CA 92008

Louis and Hellen Carrara
3450 Don Carlos Drive
Carlsbad, CA 92008

Mildred W. and James T. Danley
3302 Don Diablo Drive
Carlsbad, CA 92008

Gretchen Merritt
3434 Don Carlos Drive
Carlsbad, CA 92008

Marilyn D. Knutson
5255 Don Ricardo Drive
Carlsbad, CA 92008

Hildegard S. Smith
5362 Don Miguel Drive
Carlsbad, CA 92008

Rita Auer
3301 Don Pablo Drive
Carlsbad, CA 92008

Mr. & Mrs. Julian P. Phillips
5321 Don Ricardo Drive
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Kenneth B. Smith
5362 Don Miguel Drive
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Babette W. Gilbert
3555 Don Juan Drive
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George Hill
5348 Don Ricardo Drive
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Irwin Goldstein
5135 Don Ricardo Drive
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Floyd M. Schenk
3467 Don Ortega Drive, #376
Carlsbad, CA 92008

David C. & Dolores M. Burwell
3423 Don Jose Drive
Carlsbad, CA 92008

E.C. Robinson
5117 Don Rodolfo Drive
Carlsbad, CA 92008

Minnie Thurman
3496 Don Alberto Drive
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Bill Arnold
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Bruce Enigenburg
5163 Don Mata Drive
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<td>John Bertoldi</td>
<td>2253 Masters Road</td>
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<td>Dorothy Ricci</td>
<td>3457 Don Carlos Drive</td>
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<td>Alan Cruise, President, Oceanside Airport Association</td>
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<td>Clarence Magnusen</td>
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Attention: Library Manager

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<td>Terry Kent</td>
<td>6097 Pasco Carerra</td>
<td>760-431-9755</td>
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<td>Rancho Caroli</td>
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<tr>
<td>Andy Hansen</td>
<td>5122 Via Madrid</td>
<td>802-5102</td>
<td><a href="mailto:ohans2@usamii.com">ohans2@usamii.com</a></td>
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<td>Ron Cozad</td>
<td>3918 Valle Del Sol Bonait</td>
<td>760-716-1025</td>
<td><a href="mailto:Cozadlaw@GECGlobal.net">Cozadlaw@GECGlobal.net</a></td>
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<tr>
<td>Pat Bauer</td>
<td>4961 Poseidon Way</td>
<td>760-940-9431</td>
<td><a href="mailto:pjb@aaahawaii.com">pjb@aaahawaii.com</a></td>
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<td>RJ Bailey</td>
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<tr>
<td>Robert His</td>
<td>6748 Lemon Leaf Dr.</td>
<td>760-804-1799</td>
<td><a href="mailto:Rch86@AOL.com">Rch86@AOL.com</a></td>
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<td>Harvey King</td>
<td>1564 Summit Ave Carpa</td>
<td>760-783-3335</td>
<td><a href="mailto:Skyhawk@football.net">Skyhawk@football.net</a></td>
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<td>Rich Baker</td>
<td>7789 PASCO LA Jolla</td>
<td>760-522-3950</td>
<td><a href="mailto:RBaker68X@Hotmail.com">RBaker68X@Hotmail.com</a></td>
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<td>Roberta Felker</td>
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<td>Dooley Altenhofen</td>
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<td>Jim McKay</td>
<td>1671 Houseview Dr, Encinitas, CA 92024, 760-505-6012</td>
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<td>Larry Rodenhur</td>
<td>1283 Ocean Breeze St, San Marcos, CA 92069, 760-597-0005</td>
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<td>Wayne Thomas</td>
<td>43158 Bajada Drive, Temecula, CA 92592, (951) 784-2842</td>
<td>92009</td>
<td><a href="mailto:tim.hutter@nospo-global.net">tim.hutter@nospo-global.net</a></td>
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<td>Tim Hutter</td>
<td>939 Bectia Ct, Carlsbad, CA 760-310-2289</td>
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<td>Frederic Koelho</td>
<td>3425 Don Carlos Dr, Carlsbad, CA 760-438-3364</td>
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<td>Howard Williams</td>
<td>1443 Alpa Ct, Vista, CA 92081, 760-598-5225</td>
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<td>Cody Osborne</td>
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<td>Paul Champlin</td>
<td>1161 Calle De Los Serranos</td>
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<td>Kathy Norris</td>
<td>6430 Torreyanna Circle</td>
<td>631-7655</td>
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<td>C. Wayne Dancer</td>
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<td>Mike Orr</td>
<td>1635 Faraday AVE</td>
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<td>Greg Chornak</td>
<td>6400 El Pato Court</td>
<td>760-586-3466</td>
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<td>Martha Greenlaw</td>
<td>442 Rincio La Hacienda</td>
<td>760-438-7603</td>
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<tr>
<td>Don Brandt</td>
<td>4772 Argosy Ln CB</td>
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<tr>
<td>Hans Anderson</td>
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<tr>
<td>Candice Tu</td>
<td>127 Calle Areto</td>
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<tr>
<td>Michelle Miller</td>
<td>6377 Ebb Tide</td>
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<tr>
<td>Michael Gibbs</td>
<td>26521 Jacinto Drive, Mission Viejo CA 949-364-5934</td>
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<tr>
<td>Pete Alshay</td>
<td>975-10 Gue Bl. Carlsbad</td>
<td></td>
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<tr>
<td>Kurt Mihalco</td>
<td>2924 Direct, Carlsbad</td>
<td></td>
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<tr>
<td>David Lowther</td>
<td>609 Waca Dr, Oceanside CA 92054 760-435-1440 <a href="mailto:DAVID@UWDB.ORG">DAVID@UWDB.ORG</a></td>
<td></td>
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**McClellan-Palomar Airport**
**Part 150 Noise Compatibility Study**
**Public Meeting #2 Sign in Sheet**
**Monday, March 29, 2004**
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Phone</th>
<th>E-Mail</th>
<th>HOA</th>
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<tr>
<td>Ginna Reyes</td>
<td>PAAC</td>
<td>2210 Palomar Airport Rd.</td>
<td>Carlsbad</td>
<td>CA</td>
<td>760-438-6800</td>
<td><a href="mailto:ginna@westernflight.com">ginna@westernflight.com</a></td>
<td></td>
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<tr>
<td>Martha Greenlaw</td>
<td></td>
<td>2006 Palomar Airport Rd.</td>
<td>Carlsbad</td>
<td>CA</td>
<td>760-438-7603</td>
<td><a href="mailto:magellanav@sbcglobal.net">magellanav@sbcglobal.net</a></td>
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<tr>
<td>Tim Hutter</td>
<td>PAAC</td>
<td>939 Begonia Ct.</td>
<td>Carlsbad</td>
<td>CA</td>
<td>760-431-9151</td>
<td><a href="mailto:thutter@mac.com">thutter@mac.com</a></td>
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<tr>
<td>Olivier Brackett</td>
<td></td>
<td>1537 Spring Creek Lane</td>
<td>CA</td>
<td></td>
<td>760-806-8258</td>
<td><a href="mailto:braco@cox.net">braco@cox.net</a></td>
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<tr>
<td>Rick Baker</td>
<td></td>
<td>7789 Paseo La Jolla</td>
<td>CA</td>
<td></td>
<td>760-635-3661</td>
<td><a href="mailto:RBaker68x@hotmail.com">RBaker68x@hotmail.com</a></td>
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<tr>
<td>Janet &amp; Bruce Abrams</td>
<td></td>
<td>1019 Turnstone Rd.</td>
<td>CA</td>
<td></td>
<td>760-804-0594</td>
<td><a href="mailto:Brucea@nethere.com">Brucea@nethere.com</a></td>
<td>Seabright</td>
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<tr>
<td>Jon &amp; Jean Broome</td>
<td></td>
<td>1930-33 W. San Marcos Blvd.</td>
<td>Carlsbad</td>
<td>CA</td>
<td>760-727-1790</td>
<td></td>
<td>Palomar Estates West</td>
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<tr>
<td>Sherry Miller</td>
<td>Acting Airports Director</td>
<td>215 County of San Diego</td>
<td>San Diego</td>
<td>CA</td>
<td>92056</td>
<td>760-726-4032</td>
<td><a href="mailto:dlkey@mindspring.com">dlkey@mindspring.com</a></td>
<td>Ocean Hills Country Club</td>
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<tr>
<td>David Key</td>
<td></td>
<td>6025 Piros Way</td>
<td>Oceanside</td>
<td>CA</td>
<td>92056</td>
<td>760-602-4220</td>
<td><a href="mailto:chris_ENHLS@yahoo.com">chris_ENHLS@yahoo.com</a></td>
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<tr>
<td>Chris &amp; Ken Smoczynski</td>
<td></td>
<td>1414 Coral Way</td>
<td>Carlsbad</td>
<td>CA</td>
<td>92009</td>
<td>760-434-1545</td>
<td><a href="mailto:aggiemad@yahoo.com">aggiemad@yahoo.com</a></td>
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<tr>
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<td>PAAC</td>
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<td>Howard Williams</td>
<td>PAAC</td>
<td>1443 Alqa Court</td>
<td>Vista</td>
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<tr>
<td>Nan Valerio</td>
<td>SANDAG</td>
<td>401 B Street, #800</td>
<td>San Diego</td>
<td>CA</td>
<td>92101</td>
<td>619-595-5365</td>
<td><a href="mailto:nva@sandag.org">nva@sandag.org</a></td>
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<td>Bob Billmeyer</td>
<td></td>
<td>1566 Maritime Dr.</td>
<td>Carlsbad</td>
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<tr>
<td>John Lonley</td>
<td>P.O. Box 1988</td>
<td>Vista</td>
<td>CA</td>
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<td>92085</td>
<td>760-602-4506</td>
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<td>K. Kirk</td>
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<td>R. Griffiths</td>
<td>Airport Staff</td>
<td>2198 Palomar Airport Rd.</td>
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<td>Terry Davies</td>
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<td>1021 Goldeneye View</td>
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<td>J. Ahen</td>
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<td>Jack Jaffe</td>
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<td>Brenda Sonneborn</td>
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<td>Tom Foster</td>
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<td>John Christensen</td>
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<td>Ramona Finnila</td>
<td>Mayor Pro Tem</td>
<td>6735 Follette St.</td>
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<td>Rassoul Ketabian</td>
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<tr>
<td>Steve Fiedler</td>
<td>URS</td>
<td>1815 Glasgow Ave.</td>
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Presentation
Welcome to the 2nd Part 150 meeting!

- Open House begins at 6 pm
- Presentation at 6:30 pm
- Presentation Board Review & Break at 7:20 pm
- Your Comments on draft Noise Exposure Maps and Input on Noise Compatibility Program beginning at 7:45 pm

McClellan-Palomar Airport
Part 150 Noise Compatibility Study Update
2nd Public Meeting – Draft Noise Exposure Maps
March 29, 2004

Your Comments on NEMs and Input on NCP

- Tonight
  - Verbal
  - Public Input form
- Prior to April 14, 2004:
  - Public Input form
  - Letter to URS Corporation
  - Fax 619-293-7920 (Attention Jeff Fuller)
  - Email sdo@urscorp.com
- www.co.sandiego.ca.us/dpw/airports

“I recommend that... .”

Project Team

URS Corporation
- Deborah Murphy – Project Director
- Jeff Fuller – Project Manager
- Joe Czech – Project Engineer
- Katz & Associates – Public Involvement
  - Patricia Tennyson
  - Jennifer Dill

Presentation Outline

- Study Definition, Goals and Requirements
- Process and Progress
- Analysis and Noise Exposure Maps
- Schedule for Remainder of Study Update

What is a Part 150 Study?

A Part 150 Study is a voluntary effort by an airport to achieve the greatest possible compatibility between an airport and its surrounding communities.
**Why conduct a Part 150 Study?**

- To help facilitate the best possible relationship between the airport and surrounding communities
- Update the previous study (14 years old)
- Utilize FAA funding to help implement a noise compatibility program

**McClellan-Palomar Part 150 Goals**

Facilitate the best possible relationship between the airport and surrounding communities by:

- Reducing aircraft noise exposure
- Achieving land use compatibility through corrective and preventive mitigation measures

**Part 150 Requirements**

- Community Involvement
- Noise Exposure Maps
- Noise Compatibility Program

**Federal Aviation Administration**

**Process and Progress**

- Conducted Kick-off Meeting (March 2003)
- Airport website and monthly PAAC meetings
- Data Collection and Analysis (ongoing)
- Forecast Approval (November 2003)
- Develop draft Noise Exposure Maps (NEM)
- NEM Review and Acceptance
- Develop Noise Compatibility Program (NCP)
- Prepare Draft NCP
- NCP Review and Approval

www.co.san-diego.ca.us/dpw/airports

**Representative Flight Operations (CY2002)**

- Contacted Operators/Tenants
- Analyzed Tower counts & GEMS data

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Percentage</th>
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<tr>
<td>Air Carrier</td>
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<td>Air Taxi</td>
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<td><strong>Total</strong></td>
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**Modeled Average Daily Flight Operations for CY2004**

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**Notes:**
1) Daytime = 7am - 7pm; Evening = 7pm - 10pm; Nighttime = 10pm - 7am
2) Each Missed Approach counted as two operations
3) Each Touch and Go counted as two operations
Fleet Mix for CY2004

Runway Utilization by Period

Runway | Daytime | Evening | Nighttime | Overall
---|---|---|---|---
06 | 3% | 3% | 12% | 3%
24 | 97% | 97% | 88% | 97%
Total | 100% | 100% | 100% | 100%

Flight Track Development & Utilization

Modeled Departure Flight Tracks

Busy & Complex Region

Modeled Arrival & Missed Approach Flight Tracks

Modeled Training Flight Tracks
Other Factors

- FAA-approved flight profiles
- Run-ups
  - Hold Short areas
  - Props
- Weather
  - 61° Fahrenheit
  - 71% RH
  - Wind: 212 deg at 4 kts
- Terrain

Community Noise Equivalent Level (CNEL)

- Expressed in A-weighted decibels
- Accounts for noise from single specific aircraft type events
- Penalizes evening and nighttime events
- Utilizes annual average daily operations
- Contours of overall aircraft sound exposure
- Specified by and consistent with California Code of Regulations Titles 21 and 24

Draft Noise Exposure Map for 2004

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<tr>
<th>Residential Population*</th>
<th>Housing Units</th>
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<td>70-74</td>
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<td>Within 75</td>
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<td>Within 65 dB CNEL</td>
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Comparison with 1990

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<tr>
<td>Within 65 dB CNEL</td>
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Forecasting Flight Operations

- Recent Events
- Forecast Methods
  - Trend
  - Market Share
  - Professional Judgment
  - Separate Commercial and General Aviation
- FAA Approval

Forecast Comparison
Fleet Mix Forecast Traits

- Commercial
  - No changes documented
  - Runway length constraint
- General Aviation
  - No changes for fixed-wing fleet
  - Minor changes in helicopter fleet
- Military
  - No changes

Draft Noise Exposure Map for 2009

Next Step: Develop Noise Compatibility Program

- Operational Noise Abatement Measures
  - Review Existing Procedures
  - Identify Alternatives
- Land Use Mitigation Measures
  - Corrective
  - Preventive
- Program Management Measures
- Consider PAR 2000 Recommendations and the 1990 Part 150 Study

Schedule

- Comments on NEMs – April 14, 2005
- NEM Report to FAA – May
- FAA estimated 60-day review period and Federal Register notice of compliance
- Draft NCP to PAAC – August
- FAA Preliminary Review of NCP – September
- Third Public Meeting (NCP review) – January 2005
- NCP to FAA – February 2005
- 180-Day FAA Formal Review Period

Presentation Board Review & Break

- Please take a quick break and review the boards that are on display.
Your Comments on NEVs and Input on NCP

- **Tonight**
  - Verbal
  - Public Input form

- **Prior to April 14, 2004:**
  - Public Input form
  - Letter to URS Corporation
  - Fax 619-293-7920 (Attention Jeff Fuller)
  - Email sdo@urscorp.com

- [www.co.san-diego.ca.us/dpw/airports](http://www.co.san-diego.ca.us/dpw/airports)

“I recommend that... .”
Summary of Meeting
MEETING SUMMARY
McClellan-Palomar Airport
FAR Part 150 Noise Compatibility Study Public Meeting #2

**Date/Time:**
Monday, March 29, 2004, 6 to 9 p.m.

**Location:**
City of Carlsbad, Faraday Center
1635 Faraday Avenue, Carlsbad, CA 92008

**Facilitator:**
Patricia Tennyson

**Number of public attendees:** 32

**Participants:**
Ramona Finnila, Mayor Pro Tem of Carlsbad and Palomar Airport Advisory Committee
Member, Chair
Jeff Fuller, Project Manager, URS
Deborah Murphy, Project Director, URS
Joe Czech, Project Engineer, URS
Beth Famiglietti, URS
Peter Drinkwater, McClellan-Palomar Airport
Floyd Best, Airport Manager, McClellan-Palomar Airport
Roger Griffiths, McClellan-Palomar Airport
Olivier Brackett, McClellan-Palomar Airport
Patricia Tennyson, Katz & Associates
Dior Brown, Katz & Associates
Jennifer Dill, Katz & Associates

**Introductions and Meeting Agenda Review**
P. Tennyson started the meeting with introductions, a review of the agenda and a mention of the aerial map at the sign-in table. Meeting attendees were encouraged to place a pin in the map corresponding to where they live so the project team is aware of the reach of aviation noise impacts. She also stated that the purpose of the meeting was to allow the attendees to review the noise exposure maps and provide comments accordingly. R. Finnila welcomed the public and made opening remarks that provided an overview of the study.

**Presentation**
J. Fuller, D. Murphy and J. Czech provided background on the study and the development of the noise exposure maps with a PowerPoint presentation, answering questions afterwards. Questions and comments were recorded by Katz & Associates for future consideration by the project team and are included below.
Questions/Comments

- Do the Noise Exposure Maps contain operating data from the airport? If so, can it be assumed that aircraft maintain the appropriate altitude?
- I hear the airplanes all the time and it is not bothersome.
- The older planes are the ones that make the most noise. How is McClellan-Palomar Airport addressing the flight patterns of older planes?
- Is there a document that states how noisy an aircraft can be?
- How often is Stage 3 checked?
- The homes that have noise complaints should advocate to add an addendum to the county’s CLUP that precludes development in noise impacted areas.
- If the Cessna pilots throttle back on the downwind leg of the approach pattern, it would make a difference to residents.
- As a pilot, I am interested in how I can fly quietly.
- New airplanes make the same noise as older planes.
- The noise overlay is in a non-residential zone.
- Will runway 06 have the same noise footprint as runway 24, and will it impact those who live/work on the east side of the field?
- The NEMS do not reflect noise impacts on the east side of the airport.
- How does the McClellan-Palomar Airport Part 150 Study impact residential zoning?
- Is there any legal document that residents have to sign stating that they acknowledge they are living under the flight path?
- Please explain weighted averages of noise frequency and operations.
- The McClellan-Palomar Airport Part 150 Study is presenting two types of data which are not weighted averages, so the data cannot be compared.
- Did you collect two weeks of “strips” from the FAA? Is two weeks of data representative of airport use over time?
- In the California Airport Federal Land Use Handbook, chapter seven refers to 55 and 60 dB, but your charts only say 60.
- Are the noise operations data accurate?
- A major problem is with the helicopters; there is no control over them. They fly very low. Is there an altitude and flight pattern limit for helicopters?
- I suggest eliminating “touch and goes” and training flights. This will reduce daily activity and noise.
- According to all of the charts, Leucadia is not affected – but this is not true. Please make planes fly at higher altitudes.
- From a Civic/Pacific Helicopters owner: My suggestion is to identify the helicopters in violation and report them. I have not gotten a single complaint, but want to know if instructors or people who rent the helicopters are in violation.
- Air traffic has become intolerable in Vista during the past two years. I spend 95 percent of my waking hours hearing high pitched sounds. When I do complain, I am only told: “Sorry.” I am seriously considering selling my home.
- The noise has increased since last year.
- The flight schools use the pattern over our subdivision quite often. I would like to see the flight schools regulated.
- The attendance at this meeting is quite low compared to last year, and I am concerned about how this meeting was advertised to the public.
- What are the Noise Control Officer’s duties and accessibility?
- Flight pattern 24/06 is directly over our area, Aviara, and it is very noisy.
- There is constant noise in Leucadia. I only get 20 seconds of quiet between flights.
- This noise causes stress which causes health problems.
- When will curfews be addressed? I think we need a mandatory curfew for planes.
- The 65 dB line shown on the 1989 map is larger then the observed dB line. What percent of the airport is quieter than it was in 1990?
- The addition of 498 homes in the area is a concern. The cutout in the southeast corner has no regulation. What efforts has the city taken to gain control over the cutout area before these homes are built?
- Is the city requiring an avigation easement?
- I question the assertion that the airport is an asset to the community. I think the flights are a nuisance to the community.
- I think that the Part 150 study should look at quieter planes.
What is the regulation for flight altitude, and what do you do when planes do not comply?
If you know a plane’s tail numbers, you can track it.
The homeowners need to get organized.
Recommendations regarding McClellan-Palomar Airport were made to the FAA previously. The community needs information on how many of those recommendations were accepted.

Conclusion

P. Tennyson concluded the meeting by informing attendees that project representatives would be available to discuss further questions for a short while until 9 p.m. She also urged those present to take public comment forms with them to fill out and send in, should they have more questions in the future.
Please record your comments concerning the McClellan-Palomar Airport Part 150 Noise Compatibility Study on this form. Please include your name, address and telephone number. You may submit this form by:

1) placing it in the comment box at tonight’s meeting
2) mailing it to Jeff Fuller, Manager, Noise and Vibration, URS Corporation
   1615 Murray Canyon Road Ste. 1000
   San Diego, CA 92108
3) faxing it to (619) 293-7920
4) e-mailing sdo@urscorp.com

All comments must be received no later than April 14, 2004.

Name: Toms Fest

Address: 2287 Briar St. Dr. Carlsbad, CA 92008

E-mail: 

Phone: 760 438 0683

Comments:

1. Since Palomar utilizes a non-standard traffic pattern, those of us in the area are experiencing the flyovers noise from the take off and go traffic.

2. Those on the south side get some take off and go traffic but their biggest concern is get the off noise especially from the steeper jets.

3. Downwind traffic noise could be significantly reduced if the pilots would fly the down wind 15 degrees south of the runway.

4. I think the loss and money spent on this issue would be better spent on reducing some noise.

You may use the back of this sheet to record additional comments or attach additional paper.
5. Noise exposure maps don't include those areas of land where fliers may constitute a threat of air traffic noise to homeowners.
6. Noise abatement procedures should be mandatory.
7. Prohibit flight of Fokker.
8. Prohibit flight of Edge,
Name: Peggy Thompson
Address: peggythompson@novocom.net
E-mail: 1850 Lilac Ct @ Manganita
Phone: 931-9506
Comments: Noise level has been tolerable the past 3 months - but before that it would make my windows rattle on occasion and wake me up. I did a little research and believe it was the blue and white (Medical) helicopter (Blackhawk?) - they would fly very low - right over my house. Intolerable.

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McClellan- Palomar Airport
Part 150 Airport Noise Compatibility Study
Public Meeting # 2
Public Input Forms

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Name: Robert Gates
Address: 6748 Lemon Leaf Drive, Carlsbad
E-mail: RCORGE@AOL.COM
Phone: 760-804-1799
Comments: In your analysis of noise compatibility, please consider each of the FAA 8000 recommendations and either agree with each or provide a reason why it is not recommended as a part of this study.

________________________________________________________________________

________________________________________________________________________

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You may use the back of this sheet to record additional comments or attach additional paper.
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Name:  Pat Bauer
Address:  4961 Forestdale Way - Oceanside
E-mail:  pj6@acahawk.com
Phone:  760-940-9431
Comments:  
1. Planes aren't checked for sound - this needs to be done.
2. This should be noted to someone buying a house - NOT that we are near an airport BUT how much traffic they can expect.
3. Eliminate school truck & gas. - Not right for residential areas!
4. Many complaints are not shown in the areas as shown on your charts. There is a disconnect between your 'numbers' and reality.

You may use the back of this sheet to record additional comments or attach additional paper.
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All comments must be received no later than April 14, 2004.

Name: Anita Dwyer
Address: 1756 Whitehall Rd, Encinitas, CA 92024
E-mail: anita11@cox.net
Phone: 760-436-5446

Comments: None of the graphics, charts or drawings included where we live, yet we are unethically subjected to noise from low-flying aircraft. We are daily subjected to small planes and V-22 Osprey planes (the hi-wing beast at Palomar) buzzing our neighborhood (the beach in front of us). But the greatest offenders are the helicopters which cross directly over us 15 to 20 times a day, some as low as 250 feet. They have altered the peace on my table at times, making it impossible to enjoy eating or my patio. Why are they directed to fly over our ocean like the military helicopter does? And why are they allowed to fly so low? Why aren’t they banned? Who decides the enforcement of the rules?

You may use the back of this sheet to record additional comments or attach additional paper.
Unacceptable low/noisy air traffic observed from 1756 Whitehall Rd, Encinitas, Ca.

3-27-04

*5:45 pm – small helicopter below roofline

3-28-04

From mid-morning on, constant criss-crossing of red biwing plane

1:05 pm - Dark colored single engine plane, south to north

Red bi-wing plane, south to north

*1:10 pm - White single engine plane, south to north, only 150 to 200' feet about beach/water at waterline

1:16 pm - Something very loud, couldn’t see because of roofline

*2:05 pm - Blue/white helicopter, medium sized, south to North. Very Low, immediately overhead. 300-350 feet

2:09 pm – Blue/white helicopter, medium sized, north to south.

3:23 pm – Red biplane, south to north

3:53 White single engine plane, south to north

3-29-04

*7:55 am – large white helicopter with light blue horizontal stripe. Directly overhead. Very low. 300-350 feet

1:36 pm – white and dark blue or black helicopter – south to north.

I wasn’t at home for most of the time during the above three days, and the incidents listed above are only a smattering of the number of low-flying planes and helicopters that flew over us. On Sunday, 3-28-03, there were literally dozens of planes and helicopters which violated the 1000 foot rule above our community and the heavily-populated beach.
McClellan- Palomar Airport
Part 150 Airport Noise Compatibility Study
Public Meeting # 2
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   San Diego, CA 92108
3) faxing it to (819) 293-7920
4) e-mailing sco@urscorp.com

All comments must be received no later than April 14, 2004.

Name: ANDREW & COLLEEN BOURD
Address: 1415 CORAL WAY, CARLSBAD, CA 92009
E-mail: andyboud@pacbell.net
Phone: 760-476-9837

Comments: We have lived at this address for almost four years. In the last year or so we have noticed more and more of the prop planes turning immediately after takeoff over our neighborhood, instead of climbing out towards the ocean and turning. In addition, over the last year, helicopters are regularly taking off and flying low over our neighborhood and they make much more noise than the prop planes. Jets are sometimes taking off in the middle of the
night despite the curfew. We have been woken up at 1:30 am and 4 a.m. several times.

We fly regularly out of the airport on United Express and they and America West without exception, are hardly noticeable when they take off. I'm sure that all other pilots taking off from the airport can follow their example.
McClellan- Palomar Airport
Part 150 Airport Noise Compatibility Study
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   San Diego, CA 92108
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4) e-mailing sdo@urscorp.com

All comments must be received no later than April 14, 2004.

Name: KENNETH J. SMOCKYNSKI
Address: 1414 CORAL WAY- CARLSBAD, CA
E-mail: Smoczyks@adelphia.net
Phone: 760-609-4222

Comments: AS THIS AREA KEEP GETTING MORE RESIDENTIAL, PILOTS AT PALOMAR MUST BECOME GOOD NEIGHBORS. SOME SUGGESTIONS:

1- DO NOT OVER-FLY HOUSES ON TAKEOFF, GO TO THE OCEAN & TURN.
2- LIMIT TOUCH & GO PRACTICING.
3- QUIET HOURS, SAY 11:00PM TO 6:00AM

Observing these would be a good start to limiting noise as more & more houses are built. Otherwise only more problems can be expected.

You may use the back of this sheet to record additional comments or attach additional paper.
ANITA DWYER
1756 WHITEHALL ROAD
ENCINITAS, CA. 92024

760 436-5446

via fax 619 293-7920 – 3 pages total

April 7, 2004

Mr. Jeff Fuller, Manager, Noise and Vibration
URS Corporation
1615 Murray Canyon Road, Suite 1000
San Diego, Ca. 92108

Dear Mr. Fuller,

Last week after attending the public meeting on noise at Palomar Airport, I sent in a comment along with a list of a few of the planes which had violated the 1000 foot rule near or above my home that weekend, March 27-29-04.

This last weekend, April 2-4, 2004, it was more of the same, but far worse. Last Saturday there was scarcely five continuous minutes during the daylight hours when we were not inundated with aircraft noise from low-flying planes and helicopters. I guess because of the nice weather, there were large numbers of private planes, more so than helicopters, buzzing us as they went about their sightseeing. See attached details for some (certainly not all) of the ones that were below 1000 feet.

These people are continuously violating the law and subjecting us to unacceptable levels of noise. Who is in charge of enforcing these laws and why aren’t they doing so? I would appreciate a response as to what your corporation can do to help, and also what can be done by our community to alleviate the situation.

Sincerely,

Anita Dwyer
Friday, 4-2-04

7:12 am – white single engine plane, north to south

8:25 am – sounded like single engine plane. Too low to see (behind rooftop of two story house to west of me)

1:15 pm – single engine plane, white or light grey, north to south

1:20 pm – single engine plane, south to north.

1:25 pm – Bi-wing, south to north

Saturday, 4-3-04

8:50 am – white single engine plane, diagonally south to north (toward Palomar airport)

10:25 am – white single engine plane, north to south

10:26 am – white single engine plane, south to north

10:47 am – Dark grey or black helicopter, medium sized. Very low, 300-400 feet, over Tattenham and Parliament (street to west of Whitehall)

1:20 pm – large dark blue helicopter, fat single boom, twin tail, north to south, then south to north in large circle at approximately 500 feet

1:55 pm – white single engine plane, angle of northwest to southeast

1:56 pm – single engine plane, white with red wing tips – angle of southwest to northeast

2:00 pm White single engine plane, north to south, directly overhead

2:20 pm white single engine plane, north to south, directly overhead

2:25 pm White single plane, south to north, directly overhead (think it was same plane as previous one at 2:20 pm.)

2:27 pm – very small ‘pusher-prop’ and helicopter prop aircraft, north to south, very low

2:33 pm – White helicopter, single boom, south to north, over Highway 101 & Bishopsgate. 500 feet

3:00 pm – single engine plane, white with red trim. North to south at an angle – 500 feet
3:25 pm – two biplanes flying loosely together, orange and blue Travelaires, circular off-white oval on side. North to south on a southwest angle, directly overhead at about 600 feet.

3:57 pm – white medium sized helicopter, blue on under back part of body. Directly overhead at about 500 feet.

4:40 pm – Red biplane, directly overhead on angle of southwest to northeast, 500 to 600 feet.

5:00 pm – White single engine plane, north to south, 500 feet over surfline and beach

5:10 pm – white single engine plane, south to north

6:50 pm – Helicopter going south to north over beach and surfline at no more than 300 feet.

Sunday, 4-4-04

1:20 pm – single engine plane, south to north

1:22 pm – Red biplane, south to north

1:24 pm – single engine plane, north to south (same plane as at 1:20 pm)

3:28 pm – White single engine plane, south to northeast

Monday, 4-5-04

7:50 am – 2-engine plane, from north, curving south then west directly overhead at about 400 feet.

8:15 am – large dark helicopter at about 400 to 500 feet, over la Costa Blvd and Highway 101, north to south
Mr. Pat Kelly
2770 Sunny Creek Rd.
Carlsbad, CA 92008
760 438 3890

Re: Palomar Airport Part 150 Noise Compatibility Study
Attention Jeff Fuller

March 29, 2004

Dear Mr. Fuller,

My wife and I are lifelong local residents. My family has been here since 1850 and my house is among the oldest in San Diego County and probably the oldest privately owned home in North County, obviously predating McClellan-Palomar Airport, in fact, predating airplanes by over half a century. I recognize and appreciate the importance of the airport but I have also seen an astonishing transformation since its inception and have been dramatically impacted by these changes, particularly in recent years.

I was Co-Chairman of PAR 2000, the Palomar Airport Roundtable that united local citizens, airport staff, and City of Carlsbad officials in an attempt to address concerns related to the airport, its operation, noise abatement, and safety. The citizens action group, along with government and airport officials, spent over a year tirelessly and systematically working to address these issues and to formulate a comprehensive plan to present to the County of San Diego. Many questions were raised. There was considerably dissent as the group was broadly representative of the entire community, pro and anti airport alike. After months of discussion, including research reports and expert testimony, compromises were reached and informed decisions were made. The final report was thoughtful, well grounded, practical, and serviceable. And I believe, despite our diligence, that it was also just an exercise in futility.

This morning, four years after PAR 2000, my wife and I were awakened by an airplane departing Palomar Airport at 4:30 AM. This is not unusual. It is, in fact, quite typical. The Roundtable unanimously supported a noise abatement plan with "Quiet Hours" from 10 PM to 7 AM daily. Immediately after submitting our report, and flying in the face of our strident recommendations, the County of San Diego actually extended the operating hours for commercial aircraft. Airport claims to the contrary, we have seen no improvement in noise abatement in the years following PAR 2000.

It is my considered opinion that our hard work and dedication was in vain and that the very real and valid complaints and concerns of the local citizenry regarding McClellan-Palomar Airport have fallen on deaf ears and, regrettably, will continue to go unheard.

Sincerely, Pat Kelly
Jeff: Sorry I missed last night's public meeting regarding noise issues at McClellan Palomar Airport. My name is Robert Woelffer, I live at 6138 Paseo Monona in the Rancho Carrillo HOA, Carlsbad. Our community is located east of Palomar Airport, south of Palomar Airport Road, and south of the normal flight path from the East into the airport. Since about February, I have reported 4 or 5 private jets flying low over our house and community to the Palomar Airport Noise reporting telephone number. I have also gone to the airport to talk to Oliver Brackett and airport manager Floyd Best about this situation.

Our situation is, since January of this year we have experienced quite a few low flying jets coming from the Southwest, turning over our community and heading back east in their approach to the Palomar Airport. I have lived in Rancho Carrillo for over 2 1/2 years and rarely in that time have jets cut in low across our community until January of this year. The three mile noise abatement zone east of the airport begins east of Business Park Road, which is east of our community. The planes that are cutting across our community in their approach are not abiding by the Noise Abatement Procedures which request that jets fly a slightly high approach and start their approach alignment 3 miles east of the airport. I was told by Mr. Brackett and Mr. Best that the control tower directs the flights approaching the airport. I requested that Mr. Best request the control tower to direct incoming jet flights from the South to extend their downwind to turn to base 3 miles out. Mr. Best indicated that he would look into the reasons for the high number of incoming jet flights from the South in the first part of 04 and talk to the tower to see if they could route the flights out to the 3 mile approach pattern that would comply with the Noise Abatement Procedures. Since my discussion with Mr. Best, I have not experienced any low flying jets coming across our community.

With regard to other over flights of our community, I have not heard complaints regarding these flights. The helicopters, which make the most noise, usually do not fly low over the houses in the community and often keep their approach pattern to and from the airport over the canyon that runs through the center of our community so they are not directly over homes. There have been times when helicopters have flown low over the houses of our community and we would request that they refrain from doing that. With the jets and the helicopters, it is startling when the noise of them passing overhead suddenly engulfs our homes. And, I am sure the noise levels we are talking about far exceed 65 db.

Thank you for allowing me to address my issues even after I missed the meeting last night.

Sincerely, Robert Woelffer
I read in the North County Times today that you are studying the noise concerns related to Palomar Airport. I very much appreciate the fact that you are asking the public for comments.

My husband and I live in south Carlsbad, near Rancho Santa Fe and Olivenhain streets. We hear plane and helicopter noise frequently. It is bothersome and disturbing and, frankly, surprising that residential areas have this problem.

About 3 years ago, I called the person who responds to noise complaints at Palomar. I told him my main concern was the lack of consideration the pilots of the helicopters, bi-planes, and other small craft have about flying over residential neighborhoods. Although the man I spoke to was very nice, he basically said there are minimal limitations put on small craft by the FAA and that they have the right to fly over residential areas. He did say that we were in a "noise sensitive" area and that he would put up a reminder of that for pilots. The bi-planes have reduced some, but the helicopters and other craft are just as bad, if not worse. Some actually circle over and over again, and one plane - just last weekend - was practicing "diving", no kidding. It went on for a long time and was very irritating.

The helicopters are quite a problem of their own - they come and go at all hours and fly low - there are some that are long and white with a dark colored end to them - they are the noisiest and most frequent. I called Camp Pendleton once, thinking they were military craft but was told they are not. There are also a number of small helicopters that cut right across our neighborhood.

So, in summary, our issue is not take off and landing noise, but rather the continual flying overhead of our residential area. Many of our neighbors feel the same concerns. Some who move here from other States are surprised at the heavy air traffic that is permitted in residential locations. Pilots need to understand that their one craft can disturb many people. If your study could recommend that small craft fly over the ocean, or over freeways, or some other path of compromise, it would be greatly appreciated.

Thanks for listening,
Barbara Irani
3250 Avenida Del Alba
Carlsbad, CA  92009

760-634-7935

P.S. As I sit here and type this e-mail, I can hear an airplane flying over our house!
Attn: Jeff Fuller

Thank you for the opportunity to comment on the noise study prepared for Palomar McClellan Airport. Can you direct me to a website where I can obtain a complete copy of the study? My family and I live in the Marbrisa community located southwest of the airport and experience aircraft noise from Palomar Airport on almost a constant basis. I also fly out of Palomar Airport on a frequent basis and understand the importance of the airport to the regional transportation system and local economic development and commerce.

The existing private jet and commuter flight operations are almost a non-issue in terms of noise impact, as most of the private jets and commuter airlines are very quiet and the duration of associated noise is rather brief. By far, the most significant noise problem are the low flying, single engine propeller driven aircraft and helicopters. Many of these pilots go out of their way to fly directly over existing neighborhoods at low altitude and trim the aircrafts propellers for maximum noise generation. The airport has been in place for a long time than the surrounding residential developments, but something needs to be done about the inconsiderate pilots who fly the single engine private aircraft.

I suggest that the report contain a recommendation / requirement for all aircraft departing to the west to fly due west until they intersect with the coastline and then make required north/south turns. This will minimize direct,low altitude residential neighborhood flyover noise and also reduce the probability of residential related crash hazards.

Thank you for the opportunity to comment on the Palomar McClellan Airport Noise Study.

Eric J. Ruby
6436 Amethyst Way
Carlsbad, CA 92009
eruby@adelphia.net
Jeff Fuller/Consultants:

I reside in the Rancho Carrillo community at 2803 Via Conquistador in Carlsbad. I enjoy the propeller-driven airplanes flying over head except for an occasional low flying plane with a load exhaust. The helicopters seem to use the Carrillo valley as an air corridor. They need to be flying at a higher altitude.

If I could ask you to fix one airport item it would be the loud jet that roars off the runway at different times. Sometimes its 5 AM or 6 PM. The last time I heard it was last Sunday morning (April 28) about 1100 AM. If you're outside, it is the only thing you can hear. It must roar over the whole area around the airport for miles. I don't know the decibel level but it gets your attention. I wish I could give you the exact times and dates and noise levels of when this jet or jets make these roaring takeoffs but I'm sure you know which one I'm referring to.

Good Luck

Tim Held
(760) 725-8999 (work#)
Held JT@efdsw.navy.mil
I am a concerned citizen about the increasing noise by aircraft flying over neighborhoods with increasing frequency and noise. I would like to become educated and participate in the efforts to control the adverse effects on the beautiful city of Carlsbad.

Items of note from observation:

Airplanes may not be taking required roots during take off and landing, based on what we were advised of when purchasing our home.

Airplanes fly at very early and late hours, with many middle of the night takeoffs.

In particular, we have noticed several weekend biplanes (two white and tow red) that seem to derive pleasure at low flying over residential areas.

Video cameras could be used to track noise and plane identifications to fine violators.

I would like to be included in your meetings and am willing to participate as a community representative.
McClellan- Palomar Airport
Part 150 Airport Noise Compatibility Study
Public Meeting #2
Public Input Forms

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   San Diego, CA 92108
3) faxing it to (619) 293-7920
4) e-mailing sdo@urscorp.com

All comments must be received no later than April 14, 2004.

Name: Diane Martin
Address: 981 Hermes Ave, Encinitas CA 92024
E-mail: rdmartin@yahoo.com
Phone: 760-634-2965
Comments: PLEASE SEE ATTACHED

You may use the back of this sheet to record additional comments or attach additional paper.
Diane Martin
981 Hermes Ave.
Encinitas, CA 92024

April 8, 2004

I live about ten miles southwest of McClellan-Palomar Airport in the fairly quiet community of Leucadia. Two things I value most are my privacy and quiet. It would seem that living ten miles from the airport would not cause a problem. Unfortunately, because of the high volume of small aircraft, I have neither privacy nor quiet. Apparently, I am not alone. I attended the Public Meeting #2, and I heard many others expressing their frustration over the amount of noise created by these aircraft. I would assume that there is a myriad of others not attending the meeting who have similar complaints. I would also assume that the percentage of people living in the community who fly small aircraft is low. Therefore, the rights of the majority to privacy and peace and quiet are being trampled by the small percentage of people who do fly.

**Problem: Noise**

While the airplane noise is bad throughout the week, the problem is unbearable on weekends. On weekends, the air traffic begins early in the morning and continues all day long. I tried keeping a log for a couple of hours one Saturday to monitor how many airplanes flew over or near my house (within my hearing range). It was impossible. Before one aircraft left the area another would come and another and another and this continued for hours at a time. After a couple of hours of continuous airplane noise there would be about 20 seconds of silence, and then it started up again.

**Solution 1:** Limit the number of small aircraft taking off from the airport. There are too many planes overhead.

**Solution 2:** Increase the minimum altitude of ALL small aircraft.

**Solution 3:** If possible require small aircraft to have noise abatement devices installed. If not possible require small aircraft without noise abatement devices to fly at a much higher altitude than aircraft with noise abatement devices.

**Solution 4:** Vary the flight paths so that the same neighborhood isn’t disproportionately affected by the noise.

**Problem: Low-flying aircraft**

Regardless of minimum altitudes, there will always be those pilots who think that the rules do not apply to them and fly too low. I’ve been advised by employees of the airport to identify low-flying aircraft and call the airport with identifying information and times of violations. Frankly, I do not want to spend my time doing this, and I shouldn’t have to. I already resent having to hear the planes. I don’t want to stop what I’m doing to write down a lot of information and then make a report. Besides, this could be a huge task since the problem is so severe.
Solution 1: Someone from the airport should be policing the sky. The community is telling the airport that there is a problem. It's time for the airport officials to take these complaints seriously and come out to our communities and see for themselves.

Solution 2: Randomly select a number of aircraft every day and look at the data relating to altitude. Those in violation of altitude rules should be subject to heavy fines and/or lose their pilot license.

Solution 3: With modern technology, it seems like it may be possible to program a computer to identify low-flying aircraft.

Problem: The pilots' attitude
Perhaps the pilots are not aware of how bad the problem is for the communities they fly over. Or perhaps they don't care. One gentleman at the meeting said that the planes do not bother him, and he said that those who are bothered by the noise “let it bother them.” So his logic is, if it doesn't bother me, it shouldn't bother others. The fallacy of this type of logic needs to be addressed.

Solution 1: There needs to be a campaign to educate pilots. The pilots need to be aware that there are a lot of real human beings on the ground who value peace and quiet, and they need to know how their activities affect us. There are some pilots who fly in a circle around the same area two, three, four times or more. While there may not be regulations prohibiting it, this practice is inexcusable.

I have listed several problems and possible solutions to the problems posed by a high volume of small aircraft. I trust that these problems will be seriously considered and dealt with.

Sincerely,

Diane Martin

\[Signature\]
McClellan- Palomar Airport
Part 150 Airport Noise Compatibility Study
Public Meeting # 2
Public Input Form

Please record your comments concerning the McClellan-Palomar Airport Part 150 Noise Compatibility Study on this form. Please include your name, address and telephone number. You may submit this form by:
1) placing it in the comment box at tonight’s meeting
2) mailing it to Jeff Fuller, Manager, Noise and Vibration, URS Corporation
   1615 Murray Canyon Road Ste. 1000
   San Diego, CA 92108
3) faxing it to (619) 293-7920
4) e-mailing sdo@urscorp.com

All comments must be received no later than April 14, 2004.

Name: Drs. Dennis & Connie Penn
Address: 2526 La Gondolrige St. Carlsbad, CA 92009
E-mail: drcconniepenn@abac.com
Phone: (760) 929-8528

Comments: There has been a significant increase in noise. Our small children like to play in the back yard. This noise impacts our quality of life. Please have flight path above ocean. Please keep all jets out of Palomar and decrease private plane traffic.

Thank you.

You may use the back of this sheet to record additional comments or attach additional paper.
My name is Linda Sinclair. I live at 6122 Paseo Monona, Carlsbad, CA 92002. My home is in the Rancho Carmillo master planned development that lies east of Palomar Airport, south of Palomar Airport Road, and straddles Melrose. Our community is south of what is supposed to be the normal flight path into the airport from the east.

Since early this year, jets have been flying low over our community, cutting well short of the normal approach for planes preparing to land at the airport. The three mile noise abatement zone for the approach end of the airport (east of the airport) starts east of Business Park Road, northeast of our community. The planes cutting across our community in their approaches are failing to abide by the established noise abatement procedures, instead, taking what appears to be a "short cut" across our homes at low approach levels. Jets are supposed to have higher approaches and they are supposed to start their approach alignments 3 miles east of the airport. The established noise abatement procedures are being ignored.

Please note that I lived in Point Loma under the Lindberg flight path for several years, so I am not a person who is extraordinarily or hypersensitive to aircraft noise. I knew Palomar airport was near my home when I bought it. However, I also understood that noise abatement procedures were in effect that were to minimize aircraft noise over my community and home, especially noise from jet planes. I simply want to see those procedures enforced.

Thank you.

Linda J. Sinclair

This email communication may contain CONFIDENTIAL INFORMATION WHICH ALSO MAY BE LEGALLY PRIVILEGED and is intended only for the use of the intended recipients identified above. If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you are not the intended recipient and have received this communication in error, please immediately notify us by reply email, delete the communication and destroy all copies.

GORDON & REES, LLP
http://www.gordonrees.com
I understand that you have been made aware of a noise problem from airplanes in the Rancho Carrillo development.

I became aware of the noise again today just before 4PM. I could not see the plane to identify it as I was working in the garage at the time.

I hope you will make the air traffic controller aware of this.

Joanne Grueskin  
6182 Paseo Palero  
Carlsbad, CA 92009
Jeff Fuller,

Please include the following comments in the CRO Part 150 study,

Thank you, oh

-----Original Message-----
From: Plus Plan [mailto:scodpws@scdpmw.org]
Sent: Thursday, April 01, 2004 8:30 AM
Subject: Noise Problem Report

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Name: james santarino
Street: 1269 veronica ct
City: carlsbad
Zip: 92009
Phone: 760-476-2665
e-mail: sanzay@msn.com
Airport: McClellan-Palomar
cate: daily
time: throughout the day
Type: Prop
Engines: Unknown
NNumber: 65.115.231.184
Color: 
Remote Name: 
Remote User: 
HTTP User Agent: Mozilla/4.0 (compatible; MSIE 6.0; MSNIA; Windows 98; .NET CLR 1.1.4322)

Comments:

my home is 352 ft elev. and i am increasingly concerned from a safety and noise standpoint about small craft passing over my home at low altitudes. this is particularly alarming when these planes are circling the area repeatedly, such as from possible touch and go.
Thank you for the presentation on March 29.

Here are the items that comes to mind in relation to your Mc Clellan- Palomar Airport Part 150 study presentation on Monday, March 29, 2004.

1) Weighted data should never be considered the same or equivalent to non-weighted data. See Sokal & Rohlf 3rd edition, page 42. Is this how you came up with your weighted values? If so, then all 3 time periods should have been weighted.

2) It was not clear that the two types of data presented were from the same source (aircraft in flight).

3) How much error was in your data?

4) Your summarized data gave a nice presentation; however, it only met the needs of the regulations and did not approach the noise complaints of reality.

a. Could you show some noise comparisons
i. Lawn mower, hedge trimmer, weed whacker & leaf blowers.
ii. The parent/child noise from sports game (soccer, base ball).
iii. The white noise from the freeways and a heavy traffic area like Palomar Airport Rd.
iv. Automobiles and motorcycles engine noise in general.
lv. Playing one's own stereo in the home vs the car.

5) I would like to see graphics that depict the outliers.

6) I would like to see a graphic that shows the white noise that disturbs the surrounding public. That is AC noise that is below the regulator requirements.

7) Can you show if there is a correlation between the economic success of the airport and the increase in noise?

8) Could you display the noise levels as non-weighted data in a bar graph on your maps? I have seen this type of presentation done with environmental data. You already have designated areas that make up the airport environment. Now display in a dialog box that is attached to the area by a line. Show the bar graphs with standard deviation or error bars. Each point associated with a data box would represent a specific size area. This might better cover the white noise or the noise under the regulations that seems to be most troubling to the local residents. Stacked bars could display above and below the regulator limits.

9) With chemistry, minimum detectable levels (MDL) are used as a bench mark to demonstrate when something has reached a level of detection that can be accurate be analyzed with confidence. Maybe a scale similar to this would help show the regulators that the noise not considered is might be more detrimental in the long run.

10) How about showing a time line that corresponds to changes in the airport environment and noise level.

a. Increased large aircraft traffic.
b. Implementation of the noise abatement procedures.
c. Upgrade to all jet engines (Lears & Citations).
d. Increased pattern altitude and instrument approach angle.
e. Removal of the NDB system.

11) How dose changing the topography (for development) surrounding the airport effect the noise level? This raw vegetation vs building, roads and homes. Basically, how much absorptions of noise is lost by filling the surrounding area outside the airport environment with other than vegetation -?
12) Have you ever thought of using GIS to show the noise by altitude layers?

13) Does noise travel the same as wing tip vortices? or Does noise travel as a component of the vortices? How is the travel range and duration of the vortices affected the local terrain (vegetation vs homes and vegetation mixed in with homes).

Robin Gartman
2725 Anta Court
Carlsbad, Ca. 92009
760-931-0546
Jeff Fuller:

Jeff,

Please include this in the public comment for our Part 150 study.

Thanks, ob

-----Original Message-----
From: Plus Plan [mailto:sdcwpwca@sdcwpw.org]
Sent: Thursday, April 01, 2004 8:56 AM
Subject: Noise Problem Report

**************************************************************************
* Name:               Donna de Julien
Street:               1014 Daisy Court
City: Carlsbad
Zip: 92009
Phone: 760-929-8188
email: ddejulien@hotmail.com
Airport: McClellan-Palomar
date: regular-daily
time: always
Type: Unknown
Engine: Unknown
NNumber: 
Color: 
Remote Name: 209.66.200.3
Remote User: 
HTTP User Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.0)

Comments:

Dear FCC:
I am responding to an article in the San Diego Union Tribune of March 31, 2004. As a resident of Carlsbad living in the proximity of the McClellan-Palomar Airport for the past 8 years, I would like to forward my observations in hopes that they may assist the FCC and the airport to curtail noise from this airport to the appropriate noise impact area.

When I bought my home, I was shown a map of the area and the proximity of the airport to my home. I was informed at that time, as a disclosure, that noise from the airpot was to be expected; however, I was also shown the required flight paths, or flight corridors, that pilots are to follow, and I determined that the noise from these corridors wouldn't disturb me. I still believe this to be true. The problem is that the pilots, especially those who fly routes regularly from San Diego to Carlsbad, north into McClellan-Palomar Airport, depart from the prescribed corridor -- Interstate 5 north to Palomar Airport Road east to the airport -- and cut a line as the bee flies from Interstate 5
and Batiquitos Lagoon north east to the airport. This departure from the flight corridor takes the planes directly over my home. I am not knowledgeable, but I also think some of the planes are flying much lower than is allowed over residential areas.

From my point of view, the airport is an important transportation service, and I am happy we host an airport in Carlsbad. I think it is a nuisance to all the residents, though, who are impacted by noise, because the noise impact area is much-expanded de facto by pilots veering from the flight corridors outlined by codes. Unwitting home buyers like me, trust the information they receive about noise disclosures from the airport, so I think it is a breach of law and faith that the pilots abuse the off limits airspace by taking shortcuts like this.

I have an idea that I would like to submit at this time, because I realize that complaints without constructive suggestions to resolve issues do not help reach resolution in most cases. Here it is:

Install cameras to photograph offending planes. As with cameras that photograph drivers who ignore the redlights at freeway merging on-ramps are photographed and subsequently ticketed by mial, I think this would be a way to accurately document instances such as this. The offender would be consistently documented and ticketed in order to be directly accountable for breaking the law and disturbing the peace beyond the noise impact area. I would be pleased to offer my yard as a point of installation for a camera for this purpose.

Thank you for forwarding my comments and concerns to the FCC.

Yours,
Donna de Julien, resident
1014 Daisy Court
Carlsbad, CA 92009-4846
McClellan - Palomar Airport
Part 150 Airport Noise Compatibility Study
Public Meeting #2
Public Input Form

Please record your comments concerning the McClellan-Palomar Airport Part 150 Noise Compatibility Study on this form. Please include your name, address and telephone number. You may submit this form by:

1) placing it in the comment box at tonight’s meeting
2) mailing it to Jeff Fuller, Manager, Noise and Vibration, URS Corporation
   1615 Murray Canyon Road, Ste. 1000
   San Diego, CA 92108
3) faxing it to (619) 293-7920
4) e-mailing sdo@urscorp.com

All comments must be received no later than April 14, 2004

Name: Greg Chornak
Address: 6400 El Pato Court, Carlsbad, CA 92009
Email: gr656nak@yahoo.com
Phone: (760) 586-3466

Comments:

1. Recommend implementation of mandatory noise abatement procedures for all types of aircraft. Existing voluntary noise abatement procedures are futile since there is no dedicated enforcement of non-compliance or penalties to violators. Safety should be the only exception to the mandatory noise abatement policy. Mandatory requirements must include penalties for violators of any noise abatement guidelines with more substantial penalties for violations during “Quiet Hours”.

2. Recommend elimination or relocation of touch-and-go training flight patterns (possibly over the ocean). URS data indicates touch-and-go flights equate to 40 percent of GA VFR flights. This represents a large number and significant percentage of total flights and NOISE at McClellan-Palomar airport. Training flights are of no value to the community but are a very significant source of noise.

3. Recommend minimum altitude requirements for planes within 2 miles of airport. Terrain in area within 2 miles of airport has many areas with bluffs and hilltops. Consequently, homes on top are subject to excessive noise from planes flying lower due to lack of altitude requirements during short approaches into the airport. In addition, scenic tour flights like those done by Barnstorming Adventures generate excessive noise due to age of planes and constant use of short approaches to the airport from the south.

4. Recommend some Part 150 funding of the $250,000.00 be allocated to a Committee of Community Members to hire their own independent Noise Specialist(s) to review, compare and validate URS and Palomar Airport Staff’s noise exposure data. Community should be afforded equal rights to test accuracy and monitor noise microphones in various areas around the airport to compare with Noise Exposure results provided by URS and Airport Officials.
5. Recommend banning or implementing mandatory flight restrictions of all helicopters in and out of the airport to maintain a minimum altitude of at least 1500-2000' over major roads until entering 1.5 miles of airport. Only exceptions are flights responding directly to emergency Police of Life Flight flights. Large percentage of existing helicopter flights in and out of airport fly too low directly over our homes 2 miles southeast of the runway.

6. Recommend implementation of comprehensive noise abatement program with annual requirements to phase out older, louder planes by requiring them to install hush kits or retire noisy aircraft. Many vintage, experimental, acrobatic and other recreational aircraft are excessively noisy. Stage 3 requirement deadline was in 1999. Possibly time start thinking about new, quieter requirements.

7. Recommend mandatory flight patterns using the north approach and departure, minimum altitudes within 2 miles of the airport for recreational, experimental and vintage aircraft. Every other recreational vehicle has restrictions on areas of usage, recreational aircraft should also have designated areas away from residential areas.

8. Recommend flight restrictions, quieter planes or higher airport fees for companies such as Barnstorming Adventures Ltd. These sightseeing flights in loud, low-flying vintage aircraft need to be better regulated for noise. Types of planes, high frequency of flights and routine low-flying flight patterns of these flights is disruptive to our communities. Control Tower should require majority of these flights to use north flight patterns instead of allowing them to continually approach airport from south.

9. Recommend changing daily morning scheduled commercial departures of America West flight that departs at 6:45 am to after 7 am and change departure of United Flight 6031 that uses 06 (east) runway to runway 24 (west) departure. In accordance with “Voluntary” Noise abatement procedures.

10. Recommend the FAA consider airports having Citizen Advisory Committees to provide equitable representation regarding airport issues. Community currently has no representation on issues pertaining to the airport. Palomar Airport Advisory Committee is comprised only of airport proponents appointed by Supervisor Horn.

11. Recommend FAA use its political lobby pressure to push through Congress the Bill to reestablish the Office of Noise Abatement and Control in the Environmental Protection Agency. Acting as a self-governing agency, with obvious conflicts of interest, the FAA is unable to conduct fair, unbiased Part 150 Noise studies. As FAA spokesman Mike Fergus was quoted in the Seattle Times last year, “If they (aircraft) are not doing anything that violates safety, there’s nothing we can do”. Consequently, why is the FAA conducting and spending millions of taxpayer dollars on Part 150 Noise studies?
To:
Beth A. Famiglietti
Senior Environmental Analyst
URS Corporation
RE: URS, Part-150 Noise Compatibility Study CRQ Meeting #2
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Phone: 619.294.9400
Fax: 619.293.7920
beth_famiglietti@urscorp.com
<http://groups.yahoo.com/group/palomarairportassociation/post?postID=mSdoZcQfItth5R7HpU-QFUBn4hFpTaM-WbMfZ5P8hylxtN4yACAb8wDjBaitTx5khBZTScqjZ9U0-LHRgAn6Sasj7FE>
sdo@urscorp.com
<http://groups.yahoo.com/group/palomarairportassociation/post?postID=abjXMGjooRPbpGDpMety9yugK_1XRq74EwO-.SL6aQuMHNUHq2k0efxCMTGFW000CyFQ1qH-_h1W>

Dear Beth,

Thank you for your time discussing these crucial recommendations. My other email account bounced this back so I am sending from a work account. Please confirm receipt of 1 microsoft word document and a zip file.

Best Regards,

--Rick Baker,

<<part150-mtg2-rfc-resp-v1.0.doc>>
<<Part150RecommendationDocs.zip>>

From:
Rick Baker,
Founder and Member, Palomar Airport Association 501(C)(3) subchapter of California Pilots Association

Mailing address: P.O. Box 130476 - Carlsbad, CA 92013

Home Address: 7789 Paseo La Jolla, Carlsbad, CA 92009

Email: carlsbadairport@hotmail.com

Phone: 760.607.0844

Date: April 14, 2004

Subject: Requests for recommendations, Part 150 Meeting #2

<<Part150RecommendationDocs.zip>>
To:

Beth A. Famiglietti  
Senior Environmental Analyst  
URS Corporation  
RE: URS, Part-150 Noise Compatibility Study CRQ Meeting #2  
1615 Murray Canyon Road, Suite 1000  
San Diego, CA 92108  
Phone: 619.294.9400  
Fax: 619.293.7920  
beth.famiglietti@urscorp.com  
sdo@urscorp.com

From:

Rick Baker,  
Founder and Member, Palomar Airport Association 501(C)(3) subchapter of California Pilots Association  
Mailing address: P.O. Box 130476 - Carlsbad, CA 92013  
Home Address: 7789 Paseo La Jolla, Carlsbad, CA 92009  
Email: carlsbadairport@hotmail.com  
Phone: 760.607.0844

Date: April 14, 2004

Subject: Requests for recommendations, Part 150 Meeting #2
Dear URS:

RESPONSE
Please add the following requests and recommendations to the public record for the Part 150 Study in progress for CRQ airport in response to your request for comment at the meeting of March 29, 2004, 6pm at Carlsbad Faraday Center. I also reference also the presentation overheads at:
http://www.co.san-diego.ca.us/dpw/airports/powerpoints/2ndPublicMtgPart150.ppt

PURPOSE
I am an airport user and concerned resident of Carlsbad. Below is a list of requests and recommendations I have collected from the airport user community. These requests and recommendations are being made to the study and other agencies in the public interest to:

. Protect existing CRQ airport operations/users and the City/County from future homebuyers in new residential areas that are encroaching on the airport and directly under its traffic pattern and uncomfortable with continuous aircraft noise or a high volume of higher-risk aviation activities over their homes.

. Improve disclosure for future residents for informed buying decisions

. Improve public awareness of aviation and land use issues/facts/guidelines

. Get all possible mitigations implemented now for areas that are 1 mile from the airport do not yet physically have homes

Users make the following recommendations and escalations to this Study team and others copied on this notice. Time is of the essence.

GENERAL REQUEST
Users would like to make a request here that the following additional full disclosure statements and recommendations be put into the public record, be acted upon, be attached to the Part 150 study for general public distribution ASAP, be carried with, and easily available throughout the study to the general public, and be published as part of the study package.

REASON
This study is the only active, publicly funded, technical evaluation of airport operations that has public-involvement at this time. This is crucial because the CRQ CLUP is obsolete, and has an obvious fatal flaw in the Airport Influence Area map SE of the airport that will not be updated in time to enforce proper oversight for that area, disclose important information to and implement mitigations for new residential developments, e.g. Bressi Ranch Residential by Lennar Communities, currently in the grading phase but not yet with final approvals. This SE area “cutout” in the 1994 CLUP Airport Influence Area carried over from 1973 is keeping a new moderate to high intensity residential area from being appropriately reviewed by regulatory agencies responsible for aviation related air and ground safety, health and welfare of the public and pilots. I also ask that these recommendations be forwarded
by the URS Study, no later than the end of this month, to the San Diego Regional Airport Authority, the City of Carlsbad Clerk, City Attorney, City Council, City Planning Dept., FAA and California Division of Aeronautics, and any other department or organization concerned with Health and Welfare of the community and development in and around Carlsbad California.

REQUESTS AND RECOMMENDATIONS

Users ask that you please submit these recommendations in their entirety attached to a Request For Comment or Request for Review from the California Division of Aeronautics and the Federal Aviation Administration. Time is of the essence.

1. Add to Study for Full Disclosure: This study does not address safety. Safety is not considered in the scope of the part 150 Study.

2. Add to Study for Full Disclosure: The Study’s formal CNEL noise contours are not intended, nor practical for a layperson to use to determine levels, frequency and types of Single Event noise contour Lines (SEL) persons will experience living under the CRQ traffic pattern.

3. Recommend no new noise abatement procedures: Please do not recommend alteration of current traffic routing, tracks and airspace-use from the Bressi Ranch area because of future expected noise concerns or complaints from that area. Do not recommend to FAA or any other agency/group to attempt to implement avoidance ofaviating in this area as CRQ is very busy and runs simultaneous left-hand and right-hand pattern turns for aircraft spacing and maintaining capacity. Any attempts to implement noise abatement restrictions or even promotion of a voluntary program in an attempt to appease the new Bressi Ranch development residents could compromise aircraft safety/separation and/or reduce airport capacity. CRQ experienced a 3-fatality mid-air collision in 2002 in the Rwy 24 crosswind to downwind turn area.

4. Add to Study for Full Disclosure: There was a fatal mid-air collision that occurred in the CRQ runway 24 crosswind to downwind traffic pattern. (Reference NTSB Identification: LAX02FA288A and LAX02FA288B; 14 CFR Part 91: General Aviation; Accident occurred Tuesday, September 17, 2002 in Carlsbad, CA. Aircraft: Mooney M-20E, registration: N7199U; And Beech BE-76, registration: N1828A Injuries: 3 Fatal.) Luckily there was no on-ground off-airport catastrophe because there were no homes or people in the area where the aircraft fell to the ground. Bressi Ranch is under the Rwy 06 crosswind to downwind traffic pattern area, which is the same type of area as the Rwy 24 area where the impact occurred. Aircraft ground-impact maps in the 2000 California Airport Land Use Planning Handbook also show this area as being in a safety zone and area of increased risk where homes are not appropriate. This area will not be contained in any formal Part 150 noise contours and will not have any aviation safety oversight. Buyer beware.

Figure 1 below: CA ALUPH Safety Zones overlaid cover almost all of Bressi Ranch
5. Add to Study for Full Disclosure: CLUP incorrect. Since the 1994 CLUP will be updated by the SDRAA and they will be using both FAA guidelines AND California guidelines, there will most likely be a redefinition of area SE of airport from Noise Impact Notification Area to Airport Influence Area. Property in this area should have special disclosure language attached to the deed that discloses this probable reclassification to prospective owners.

6. Add to Study for Full Disclosure: To the prospective new residents of homes located within one mile of the airport, e.g. Bressi Ranch Residential: the formal results of this noise study should not be interpreted by prospective home buyers that if this area is determined "compatible" by formal Part 150 noise contour lines/standards, this does not mean it is recommended, compatible or safe by state or federal guidelines for the planned Bressi Residential development.

7. Add to Study for Full Disclosure: this study does not validate the planning or building of residences within one mile of the airport. Please see appropriate planning guidelines from the California Division of Aeronautics for planning and safety guideline information. The California State document that sets standards for health, welfare and safety for the building of new homes next to airports in California is the following document: The 2002 California Airport Land Use Planning Handbook, published by the California Division of Aeronautics. http://www.dot.ca.gov/hq/planning/aeronaut/documents/ALUPHComplete-7-Ozrev.pdf. Your new residence may very well not be consistent with these guidelines. Please refer to this document if you are concerned about aircraft overflight, noise and safety. Here is a map overlay of the Bressi Ranch Residential Area with the California safety zones:

8. Add to Study for Full Disclosure: FAA considers development of homes within one mile of an existing airport to be incompatible. Preference the following outline in red for an FAA comment on a similar situation at another SD airport. The FAA has not been given a request for comment (RFC), such as the RFC response below, for the Bressi Ranch area because the obsolete CRQ CLUP has incorrectly defined the area to not
be part of the Airport Influence Area. Include the following information in the disclosure.

Figure 2 Below: Statement by FAA that a new residential development 1 mile from airport is not considered to be compatible.

"It is the FAA’s doctrine to promote compatible land uses around airports through the adoption of local zoning laws by municipalities that restrict the use of adjacent airport lands or that within the immediate vicinity to activities and purposes that are compatible with normal airport/aircraft operations. Development of homes in this location is not considered by FAA to be a compatible use knowing the existence of an airport being less than 1 mile away. It should be noted to residents who will be purchasing these homes that there will be departing and approaching aircraft noise within close proximity. It is in the best interest of everyone that land uses such as residential housing NOT BE located near an airport."


County of San Diego Airports Division

9. Add to Study for Full Disclosure: Airport users are making desperate attempts to inform the public and public agencies about inappropriate residences and encroachment and have appropriate agencies assert their oversight and mitigations. Airport supporters, in an effort to prevent future noise and safety complaints that will probably affect airport operations and new communities, are circulating the following petition and other efforts will continue to be increased upon public service agencies until sufficient oversight and mechanisms are in place:

"PETITION

PROTECT CARLSBAD FROM GERRYMANDERED AIRPORT INFLUENCE AREA BOUNDARIES AND INCOMPATIBLE LAND USE.

I am opposed to new residences being built at Bressi Ranch—all within one mile from McClellan-Palomar Airport and directly beneath its arrival and departure pathways. McClellan-Palomar Airport is one of the busiest single runway airports in the United States and purchasers of the proposed homes would be subjected to significant noise from hundreds of propeller, jet and rotorcraft approaches, departures and full power run-ups at the airport each day and night. Even worse, the planned housing tracts are directly below areas known for high-risk aviation activities and normally considered inappropriate for homes, meeting areas and schools. In addition, the 1994 Comprehensive Land Use Plan (CLUP) is wrong. It is out of date and contains an obvious and fatal flaw. Somehow, the boundary lines of the "Airport Influence Area" were "gerrymandered" from accepted standards to exclude the residential portions of Bressi Ranch from regulatory review by the San Diego County Regional Airport Authority. I ask that appropriate regulatory agencies assert responsibility over these plans and have the common sense to avoid years of noise complaints and litigation and the potential for a catastrophic accident by zoning all of Bressi Ranch commercial and industrial—not residential."

Figure 3 below: Picture of Bressi Ranch Residential inside Carlsbad Tract CT 00-06:
10. Request Mitigations: Because the City and Airport already have a large amount of noise complaints from areas well outside of established guidelines for airport zones and the Airport Influence Areas, the building of approximately 500 new homes in Bressi Ranch Residential area, even though this area falls outside of Part 150 noise contour lines, will expose the City and airport operators/users to community complaints, health & welfare and legal problems unless Avigation or Overflight Easements are required to be awarded by Bressi residents to the City and county/Airport. Recommend Avigation or Overflight Easements, not disclosures, as a mitigation, ASAP. Bressi Ranch Residential does not yet have final approvals and it is practical to implement this now. The requiring of Easements of this type at this time does not meet the standard of Inverse Condemnation, as the new development will still be financially viable for the developer (See CA ALUPH discussions). But, time is of the essence.

11. Add to Study for Full Disclosure: Add 55dB, 50dB and 45dB noise contours to all the charts to better inform the public and improve disclosure to and for those people sensitive to aircraft noise so they can consider these facts as part of an informed buying decision before purchasing and moving into the area. Noise mitigations methods and various building regulations make references to a 45dB indoor sound level; this does not address noise levels outdoors in one's back yard. Adding contour lines down to 45dB will help in full disclosure.

12. Add to Study for Full Disclosure: Add an overlay map/picture that shows helicopter arrival-departure paths as these aircraft fly very low, slow, have an increasing amount of activity, are on the SE side, and have special noise-vibration characteristics, such as blade-slap.
13. Add to Study for Full Disclosure: Helicopter blade-slap noise and vibration will probably be a main complaint SE of the airport in the future Bressi Ranch Residential area based on the helicopter base and training areas.

14. Add to Study for Full Disclosure: People moving into the area concerned with needing a certain level of "Periods of Quiet" and no/little "single event noise" should not look to the formal Part 150 study for answers to their concerns. There are residents currently complaining of continuous aircraft noise, noise with no pause, so I request you provide data and pictures for these people by adding the CNEL contours down to 45dB as requested above.

15. Add to Study for Full Disclosure: It was confirmed by City Council Member Finnila at the study public meeting that Avigation easements would need to be awarded for Bressi Ranch "all around". Airport users fully support this and are requesting they be involved in the development of the easement language. Time is of the essence.

16. Add to Study for Full Disclosure: The California Pilots Association submitted a letter to the City and other agencies to request the appropriate guidelines be used to determine whether or not homes should be built in Bressi Ranch. See appendix.

17. Reduce noise contour inaccuracy: Please use "Wind 245 at 8kts" for your noise model if you are unable to use actual hour-by-hour statistical winds in your model. Almost all aircraft activity is during the day when the prevailing winds are from the runway heading and faster than 4kts. Please do not use Wind 212 at 4kts, as this has the effect of reducing the contour lines at the SE end of the airport, which can mislead the perception of those residing South and Southeast of the airport.

18. Reduce noise contour inaccuracy: One of the future outlook/aircraft activity forecasting statements made at the meeting referenced "Minor Changes in Helicopter Fleet" may no longer be true. Mr. Tu, the operator of the flight school Civic Helicopters, has unexpectedly sold the school to a large operator and the school may be expanding operations. Recommend URS directly interview the new operators and update the noise model's estimate.

19. Reduce noise contour inaccuracy: Recommend review and ensure helicopter tracks are as close to actual as possible, as they are not part of the fixed wing pattern. Especially ensure the arrival-departure paths from the Civic Helicopter pads to and from the southeast are correct. Prospective buyers in encroaching residential areas to the SE need to be advised on a map of blade-slap levels and frequency.

20. Improve future activity estimates: It is a fact that CRQ has experienced operational loads of up to 292,000 per year. That was a year in which it was reported there were 4 flight schools. There are now 5 flight schools and two flying clubs which members use for personal training. All schools seem to be increasing capacity. Users would like to request that operations estimates be challenged, as users believe they are too low.
21. Increase public awareness: Make a “daytime rough-order-of-magnitude (ROM) Runway 24 in-use” overlay picture map available to the public with noise contours all the way down to the 45dB level using Winds from 240 deg, wind speed 10 kts and relative humidity of 50%.

22. Increase public awareness: Make a “daytime rough-order-of-magnitude (ROM) Runway 06 in-use” overlay picture map available to the public with noise contours all the way down to the 45dB level using Winds from 060 deg (runway heading) and wind speed 10 kts and relative humidity of 20%.

23. Recommendation: For the study and recommendations more closely coordinate in a more one-on-one fashion for technical discussions with representatives the local user groups by networking through the 1. Aircraft Owners and Pilots Association, Airport Support Network Volunteer—the ASN Representative for CRQ is Rick Baker. 2. Carlsbad Airport Association LLC http://www.palomarairport.org 3. Palomar Airport Association www.palomarairportassociation.com public benefit 501(c)(3). These channels coordinate with many if not most airport users.

Attachments:

Appendix A: California Pilots Association Letter to City and ALUC, Feb 26, 2004

Appendix B: Petition to the ALUC, March 8, 2004 petition-aluc-crq-clup-update-cozad.pdf


Appendix D: Draft CLUP for SLO airport, encourages industrial development around airport, not residential. See SLO_ALUP_1_04a_tefft_draft.pdf
February 26, 2004
San Diego County Regional Airport Authority
Attn: Mr. Ted Anasis, AICP
P.O. Box 82777
San Diego, CA 92138-2776

Re: Carlsbad/Palomar Airport

Dear Sirs/Mmes:

The California Pilots Association assists cities and counties in preserving their public airports. Each public airport is an on ramp and off ramp to the nation’s aerial highways. The Carlsbad/Palomar Airport serves that very important business and personal transportation purpose for the region.

Our members are concerned that the proposed Bressi Ranch residential development under the traffic pattern for Carlsbad/Palomar Airport would adversely affect and jeopardize the airport’s future. The airport must be preserved if future generations of the region are to enjoy an effective air transportation facility.

Compatibility of the proposed Bressi Ranch Development must be judged by guidelines contained in the Caltrans Airport Land Use Planning Handbook and any current Airport Land Use Plan. If the existing Airport Land Use Plan is not current, the San Diego County Regional Airport Authority as the responsible agency is mandated to review and update the plan.

An updated airport land use plan must incorporate guidelines contained in the Caltrans Handbook. A plan can be updated with a resolution by your Authority that incorporates by reference the Handbook guidelines into the updated plan. It is the suggestion of our Association that your Authority adopt a resolution updating the Carlsbad/Palomar Airport Land Use Plan before evaluating the Bressi Ranch Development project for compatibility.

Thank you for the opportunity to comment on this very important issue.

Yours truly,

Jay C. White, President

CC: City of Carlsbad Planning Dept.
Caltrans Division of Aeronautics
Carlsbad Airport Association
Lennar Communities
CARLSBAD AIRPORT ASSOCIATION, LLC

MAGELLAN AVIATION BUILDING  *  McCLELLAN-PALOMAR AIRPORT

2006 Palomar Airport Road, Suite 214
Carlsbad, CA 92008

Telephone (760) 431-8200
Facsimile (760) 431-1244

Ronald J. Cozad, Managing Member & General Counsel
cozadlaw@sbcglobal.net

March 8, 2004

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY
Airport Land Use Commission
P.O. Box 82776
San Diego, CA 92138-2776

By Personal Delivery
San Diego International Airport
Commuter Terminal, 3rd Floor - Wright Bros. Conference Room
3225 N. Harbor Dr. - San Diego, CA 92101
March 8, 2004 Time: 10:00 am

Re:  Petition for Review and Update of CRQ CLUP
CRQ – Bressi Ranch ALUC Item 17-March 1, 2004

Dear Commissioners:

The CAA represents light aircraft owners, pilots, businesses and users of McClellan-Palomar Airport. The CAA is a member of the San Diego Area Aviation Council, which is composed of similar user organizations from each general aviation airport throughout the county. I am also writing on behalf of the Palomar Airport Association, a public benefit group currently in formation and affiliated with California Pilots.

Last Monday, we attended the ALUC meeting believing that item 17 would include consideration of roughly 500 residences planned for construction in the Bressi Ranch development. When we learned at the last minute the submission had been limited to the industrial-only portions along Palomar Airport Drive and that no residences were under consideration, several persons, including myself chose not to speak. When we attempted to determine when the Commission would consider the residential parcels, it became apparent that the development’s proponents may argue the Commission lacks authority based on the outdated ten year old CLUP currently in effect.

Upon further investigation, we determined that at least as far back as 1984, a large and conspicuous portion of the development was “carved out” of the “Airport Influence Area”, as shown in SANDAG’S 1994 CLUP, and arguably no longer within your control. For your reference, we attach a copy of the CRQ Land Use Plan showing the “carve out” directly over the residential portion of the tract. If we are correct, it appears you will not have the tools to fulfill your statutory mandate:
“…to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.” California Public Utilities Code 21670(a)(2).

In support of this Petition, we attach appropriate references to this Commission’s grant of authority and to references from California Department of Transportation establishing the following:

1. This Commission has the authority and duty to prepare and adopt a CLUP for airports within its geographical jurisdiction.

2. The CLUP shall be reviewed as often as necessary in order to accomplish its purposes. A periodic reexamination of the entire plan is strongly encouraged as a means of keeping it up to date with changes in state laws, local land uses, airport development and activity, and current concepts for achieving noise and safety compatibility. Depending upon the rapidity with which these changes occur, a thorough review is appropriate every five to ten years. The CLUP itself provides for updates every 5 years or sooner as needs arise.

3. This Commission is not bound by prior action or inaction of SANDAG.

Therefore, for myself, for our members and for the welfare of the community and the potential families who may purchase homes within Bressi Ranch, we request that this Honorable Commission order a review and update of the CRQ CLUP, to update anticipated uses, to assert review authority and to determine whether the proposed residential uses within 1 mile of the country’s busiest single runway airport are consistent with current planning models, such as the California Airport Land Use Planning Handbook. We believe that once this Commission conducts the proper oversight of this project, it will necessarily find the proposed residential use as “inconsistent” and will appropriately limit building to commercial and light industrial uses within a properly defined Airport Influence Area.

Sincerely,

Ronald J. Cozad

Copies

A. Shafer-Payne
Vice President, Strategic Planning

Peter Drinkwater
(Peter.drinkwater@sdcountry.ca.gov)
COUNTY OF SAN DIEGO
Department of Airports
1660 Joe Crosson Drive, MS S-119
El Cajon, CA 92020

Floyd A. Best
(floyd.best@sdcountry.ca.gov)
McClellan-Palomar, Airport
Palomar Airport Drive
Carlsbad, CA 92008
REFERENCES

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY POLICIES
ARTICLE 8 - GENERAL OPERATIONS
PART 8.3 - STRATEGY AND PLANNING
SECTION 8.30 - AIRPORT LAND USE COMMISSION

POLICY STATEMENT:
(1) General Provisions.

************
(b) Authority. The San Diego County Regional Airport Authority (the “Authority”), is acting in its capacity as the Airport Land Use Commission (“ALUC”) for the County, as provided by Section 21670.3 of the California Public Utilities Code. The Authority has adopted this policy in recognition of its governmental obligations under the laws of the State of California, which designate the Authority as the proper Local Agency in the County to protect public health, safety and welfare by ensuring the orderly expansion of Airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports, to the extent that these areas are not already devoted to incompatible uses consistent with Section 21670.3 of the California Public Utilities Code.

************
(c) Powers and Duties. The Authority has the following powers and duties, subject to the limitations upon its jurisdiction as set forth in Section 21676 of the California Public Utilities Code:

(i) To assist Local Agencies in ensuring compatible land uses in the vicinity of all new Airports and in the vicinity of existing Airports to the extent that the land in the vicinity of those Airports is not already devoted to incompatible uses;
(ii) To coordinate planning at the state, regional and local levels, so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare;
(iii) To prepare and adopt a CLUP for the County on or before June 30, 2005, pursuant to the requirements of California Public Utilities Code Sections 21670.3 and 21675. Any CLUP developed pursuant to Section 21675 and adopted pursuant to Section 21675.1 by the San Diego Association of Governments shall remain in effect until June 30, 2005, unless the Authority adopts a CLUP prior to that date; and
(iv) To review the plans, regulations and other actions of Local Agencies and Airport Operators pursuant to the requirements of California Public Utilities Code Sections 21670.3 and 21676.

************
(h) No Waiver or Creation of Implied Policy of Enforcement. Neither any (i) failure of the Authority to take any act or action in strict enforcement of this policy, inadvertent or otherwise, nor (ii) affirmative waiver of enforcement of this policy by the Authority in a specific instance after consideration of special requests or circumstances, shall be deemed to constitute the establishment of any express or implied policy of the Authority in the enforcement or non-enforcement of this policy, and shall not be relied upon by any person in making any determination, or taking any action, in violation of any provision of this policy.
(2) Comprehensive Land Use Plan.

(a) Purpose of Comprehensive Land Use Plan. The CLUP is the fundamental tool used by the Authority in fulfilling its purpose of promoting Airport land use compatibility. Specifically, compatibility plans have two purposes: (i) to provide for the orderly growth of each Airport and the area surrounding each Airport within the jurisdiction of the Authority; and (ii) to safeguard the general welfare of the inhabitants within the vicinity of each Airport within the jurisdiction of the Authority and the public in general.

(b) Preparation of Comprehensive Land Use Plan. The Authority shall be responsible for the preparation of a CLUP on or before June 30, 2005. The CLUP shall provide for the orderly growth of each Airport and the area surrounding each Airport within the Authority’s jurisdiction, and shall provide policies to safeguard the general welfare of the inhabitants within the vicinity of each Airport and the public in general, as required by Section 21675 of the California Public Utilities Code. The CLUP that is adopted by the Authority shall include and shall be based on a long-range Master Plan or an Airport Layout Plan, where available, that reflects the anticipated growth of such Airport during at least the next twenty (20) years. …

(c) Amendments to Comprehensive Land Use Plan. The CLUP shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year. For a CLUP that pertains to more than one Airport in the County, this limitation allows separate amendments for the portion dealing with each individual Airport. Any policies applicable to all Airports in the Authority’s jurisdiction shall be amended only once during a calendar year. Coordination with local jurisdictions shall be conducted prior to the approval of any CLUP amendments. A periodic review of the CLUP shall be conducted in order to keep the CLUP up to date with changes in state laws, local land uses, Airport development and activity, and current concepts for achieving noise and safety compatibility.

(d) Adoption of Comprehensive Land Use Plan and Amendments. The CLUP and any amendments shall be approved and adopted by the Authority, and shall constitute the Authority’s recommendation to the Local Agency for compatible land uses within the Airport Influence Area. Prior to adopting each CLUP or amendment, the Authority shall hold a public hearing consistent with this policy.

(3) Authority Review of Local Actions.

(a) Overview. One of the fundamental responsibilities of the Authority is the review of Local Agencies’ land use plans, Airport plans and certain other land use projects and actions for compliance with the criteria and policies set forth in the applicable CLUP. The process that the Authority shall follow for this review process depends upon the following three (3) factors:
   (i) the type of local action involved;
   (ii) whether a compatibility plan exists for the Airport; and
   (iii) what action the Local Agency has taken with regard to making its general plan consistent with the Authority’s CLUP.

(b) Authority Review Requirements. Local Agencies must refer certain actions to the Authority for review. Referral of other local actions, primarily individual development projects, is required in some instances, but voluntary in others.

*****

(i) Actions For Which Authority Review Is Mandatory.
(A) General Plans and Specific Plans. Any proposal by a Local Agency to adopt a general plan or specific plan shall be referred to the Authority for review, if the boundaries of the plan are within the Airport Influence Area of an Airport, irrespective of whether a CLUP has been adopted for the Airport. If a CLUP has not been adopted, then the Airport Influence Area is defined to mean the study area for such plan or the land within two (2) miles of the Airport boundary pursuant to Section 21675.1(b) of the California Public Utilities Code. Amendments to such plans also shall be referred to the Authority, if the change affects locations within an Airport Influence Area. In such instances, referral shall take place prior to the Local Agency’s action to adopt or amend the plan consistent with the requirements of Section 21676(b) of the California Public Utilities Code. The requirement for submittal of general plans and specific plans exists regardless of whether a proposal is initiated by the Local Agency to adopt or amend a general or specific plan or whether a proposal is initiated based upon the requirement for the Local Agency’s plans to be reviewed for consistency with a CLUP that is newly adopted or amended by the Authority. California Government Code Section 65302.3 requires Local Agencies to either amend their general plans and any affected specific plan to be consistent with the Authority’s CLUP within one-hundred eighty (180) days of when the Authority adopted or amended its CLUP, or take the steps necessary to overrule the Authority.

(B) Ordinances and Regulations. Authority review of Local Agency proposals to adopt or amend Zoning, building, and other land use ordinances and regulations shall be required in instances where those ordinances and regulations have implications for Airport land use noise or safety compatibility pursuant to the requirements of Section 21676(b) of the California Public Utilities Code.

APPENDIX A
DEFINITIONS

“Airport Influence Area” means a planning area designated by the Authority around each Public-Use Airport which is, or reasonably may become, affected by Airport operations including, but not limited to noise, fumes, or other influence, or which is, or reasonably may become, a site for a hazard to aerial navigation. If a CLUP has not been adopted, then the Airport Influence Area means the land within two (2) miles of the Airport boundary. See California Public Utilities Code Section 21675.1(b).

“Comprehensive Land Use Plan” or “CLUP” means the compatibility plan that presents the areas currently impacted or likely to be impacted by noise levels and flight activities associated with aircraft operations of one or more Airports. A CLUP usually presents in narrative and graphic form the noise, safety and other criteria that will enable Local Agencies to compatibly plan and develop the land within the Airport Influence Area.
Plan Amendments
State law (Section 21675(a)) limits amendment of a compatibility plan to no more than once per calendar year. For compatibility plans which pertain to more than one airport, this limitation can be interpreted as allowing separate amendments for the portion dealing with each individual airport. Any policies applicable to all airports in the ALUC’s jurisdiction can be amended only once during a year. This same section of the law also states that a compatibility plan “shall be reviewed as often as necessary in order to accomplish its purpose.” A periodic reexamination of the entire plan is strongly encouraged as a means of keeping it up to date with changes in state laws, local land uses, airport development and activity, and current concepts for achieving noise and safety compatibility. Depending upon the rapidity with which these changes occur, a thorough review is appropriate every five to ten years. The review and amendment process should follow essentially the same steps as noted above for the original adoption process. Certain steps generally can be simplified if the changes to the plan are relatively minor. Coordination with local jurisdictions is nevertheless still important, particularly if the changes involve influence area boundary changes or affect the consistency with local general plans.
COMPREHENSIVE LAND USE PLAN
McCLELLAN-PALOMAR AIRPORT
CARLSBAD, CALIFORNIA

Adopted April, 1994

San Diego

ASSOCIATION OF GOVERNMENTS

401 B Street • Suite 800
San Diego, CA 92101
(619) 595-5300

This report was financed with SANDAG local funds.

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista, and County of San Diego.

ADVISORY/LIAISON MEMBERS: California Department of Transportation, U.S. Department of Defense, and Tijuana/Baja California.
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March 30, 2004

Mayor Pro Tem Ramona Finnila  
CITY OF CARLSBAD  
1200 Carlsbad Village Drive  
Carlsbad, CA 92008

Re: Bressi Ranch Avigation Easements

Dear Mayor Pro Tem Finnila:

The Carlsbad Airport Association wishes to thank you for your efforts in presenting the Part 150 Noise Study last night at the Faraday Center. Thanks also for confirming that the City is requiring avigation easements be executed covering the entire project. Given the unusual history and placement of the parcel we think your insistence on the easements reflects sound pragmatic judgment.

Sincerely,

Copies
P. Drinkwater  
F. Best  
C. Lewis
SAN DIEGO AREA AVIATION COUNCIL

PROMOTING AVIATION AND PROTECTING AIRPORTS THROUGHOUT AND NEAR SAN DIEGO COUNTY

The SDAAC promotes the proper use of land near airports to achieve harmonious relations between airport users and residents through responsible zoning and building controls. The SDAAC is composed of members from airport organizations from each San Diego area public airport, including McClellan-Palomar, French Valley, Borrego Valley, Fallbrook Airpark, Agua Caliente, Jacumba, Ocotillo Wells, Montgomery Field, Oceanside, Ramona, San Diego, Brown and Gillespie Fields.

Each member is nominated by airport volunteer groups. Each member has extensive knowledge of airport land use principles and works in coordination with the umbrella organization. The SDAAC draws from the expertise and knowledge of the Federal Aviation Administration and California Department of Transportation, as well as from each member organization, the California Pilots Association and the Aircraft Owners and Pilots Association. The SDAAC is a resource to Southern California government, the press, residents, pilots, non-pilots, local Commissions and Committees.

In year 2004 the SDAAC’s top issues include the inappropriate adherence by municipalities to outdated and ineffective Comprehensive Land Use Plans (CLUPs), zoning contrary to accepted guidelines and the irresponsible placement of homes in high-risk aircraft operation zones and in noise sensitive areas near airports.
The Staff Report fails to mention the CLUP is required to be updated every five years or sooner as required. **This CLUP is FIFTEEN YEARS OLD and out of date.**

1. **Gillespie Field Comprehensive Land Use Plan (CLUP)**

A CLUP was originally adopted for Gillespie Field in 1974 and amended in July 1989. This CLUP provides a land use plan for the areas surrounding Gillespie Field based upon noise impact zones and runway protection zones. In addition, the CLUP describes the actions necessary to help ensure compatible land use planning surrounding Gillespie Field, which is operated by the County of San Diego Department of Public Works, Airports.

The Staff Report focuses on the FAA’s “no hazard” determination but minimizes its **blatant criticism of the project** as a whole.

3. **Information Received from FAA and County of San Diego Airports Division**

*Determination of No Hazard To Air Navigation from FAA*

Consistent with CLUP requirements, the project developer submitted the proposed project to the FAA for a hazard to air navigation determination pursuant to the FAR Part 77 requirements. The FAA prepared an aeronautical study that determined that the proposed project would not be a hazard to air navigation. In addition to this “no hazard” determination, however, the FAA included additional information in its aeronautical study as follows:

"It is the FAA’s doctrine to promote compatible land uses around airports through the adoption of local zoning laws by municipalities that restrict the use of adjacent airport lands or that within the immediate vicinity to activities and purposes that are compatible with normal airport/aircraft operations. Development of homes in this location is not considered by FAA to be a compatible use knowing the existence of an airport being less than 1 mile away. It should be noted to residents who will be purchasing these homes that there will be departing and approaching aircraft noise within close proximity. It is in the best interest of everyone that land uses such as residential housing NOT BE located near an airport."


*County of San Diego Airports Division*
This statement in the Staff Report,

“…A number of persons also spoke in opposition to the proposed consistency determination…”

should have more accurately been written as follows:

“More than one hundred members of the public appeared and many spoke of their public safety concerns. All but the developer voiced strong opposition to the Application.”

A preliminary ALUC public hearing regarding the proposed project was held on January 5, 2004. At that hearing, the County of San Diego indicated that it was in the process of preparing an updated narrative Airport Layout Plan (ALP) for Gillespie Field, and presented information regarding the updated activity forecasts, new noise contours and new safety zones that were being developed by the County in connection with the ALP update process. Additional information regarding the County ALP update process is provided in Section 3, below.

In addition to the County of San Diego presentation, the project developer and applicant to the City of El Cajon provided information to the ALUC regarding the residential project. A number of persons also spoke in opposition to the proposed consistency determination.

The Staff Report also neglects to state that the County Director of Airports, Peter Drinkwater, and Principal Airport Specialist, Sherry Miller, appeared and voiced the County’s opposition based on unmistakable public safety concerns.
This Commission embraces “best-in-class” governance principles and its members are fully empowered to exercise their respective business judgment to act in what they reasonably believe is in the best interest of the Authority’s constituents and the public.

**SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY**

**POLICIES**

**ARTICLE 1**  -  **ADMINISTRATION AND GOVERNANCE**
**PART 1.5**  -  **GOVERNANCE**
**SECTION 1.50**  -  **GOVERNANCE**

**PURPOSE:** To establish the principles and practices for the governance of the San Diego County Regional Airport Authority (the “Authority”).

**POLICY STATEMENT:**

1. **Establishment of Governance Principles and Practices.** The Authority is committed to being and operating as a world-class organization, and to that end shall adopt, implement and maintain best-in-class governance principles and practices.

2. **Adoption of Governance Policy.** It is in the best interests of the Authority and the public that it serves to adopt this policy to supplement the San Diego County Regional Airport Authority Act, as amended (the “Authority Act”), to delineate the respective roles, duties and responsibilities of:
   - The Board of Directors (the “Board”);
   - The Board’s Executive Committee (the “Executive Committee”); and
   - The President/CEO (the “President/CEO”).

3. **Considerations.** This policy has been developed based on the following considerations:
   - Review of best-in-class governance principles and practices that have been developed and tested in practice by respected airport authorities and other governmental entities;
   - A desire to meet the needs of the public that the Authority serves, and the individuals and businesses that use the Authority’s facilities or deal with the Authority; and

4. **General Principles of Governance.** The Board and the Executive Committee, in discharging their respective powers, duties and responsibilities under this policy and under any other applicable laws, Policies or Codes, shall act in accordance with the following:

   (a) exercise their respective business judgment to act in what they reasonably believe to be in the best interests of the Authority’s constituents and the public that the Authority serves;
DRAFT REVISED
AIRPORT LAND USE PLAN
FOR THE
SAN LUIS OBISPO COUNTY REGIONAL AIRPORT
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PROPOSED AMENDMENT TO THE AIRPORT LAND USE PLAN
SAN LUIS OBISPO COUNTY REGIONAL AIRPORT

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SECTION 1
INTRODUCTION

1.1 THE SAN LUIS OBISPO COUNTY AIRPORT LAND USE COMMISSION

The San Luis Obispo County Airport Land Use Commission (ALUC) is an independent body of seven members which has been created in response to the mandates of The State Aeronautics Act, first enacted in 1967. Under this statute, it is the duty of the ALUC

“to assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity is not already devoted to incompatible uses”

“to coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare”; and

“to provide for the orderly development of the area surrounding the San Luis Obispo County Regional Airport (Airport) so that new developments are not likely ultimately to cause restrictions to be placed on flight operations to or from the airport.”

As the means of fulfilling these basic obligations, the ALUC has two basic duties under the Public Utilities Code:

To Prepare Airport Compatibility Plans (Airport Land Use Plans) – The Commission is required to prepare and adopt an Airport Land Use Plan (ALUP) for each of the airports within its jurisdiction. In the case of San Luis Obispo County, this requirement applies to the Airport (McChesney Field), the Oceano Airport, and the Paso Robles Municipal Airport.

To Review Referring Agency Actions and Airport Plans – In addition to formulating ALUPs, the ALUC is required to review certain types of action by local counties and cities which affect the land use in the vicinity of airports to ensure that the action proposed by the referring agency is consistent with the ALUP.

Although the ALUC, by law, receives technical support from the County of San Luis Obispo, it is an autonomous body and is not part of any local governmental structure.

1.2 THE ALUP FOR THE SAN LUIS OBISPO COUNTY REGIONAL AIRPORT: BACKGROUND

The ALUP for the Airport was initially adopted by the ALUC in 1973. The plan was subsequently amended in 1974, 1977, and 2003. The current document represents a further amendment in response to revised state guidelines published in the Department of Transportation’s Airport Land Use Handbook (ALUP Handbook) in January, 2002.
SECTION 2
SCOPE OF THE AIRPORT LAND USE PLAN

2.1 PURPOSES
The purposes for which this ALUP is prepared and adopted are:

- to protect the long term economic viability of the Airport by ensuring compatible land uses in the vicinity of the airport to the extent that lands in the airport area are not already devoted to incompatible uses;
- to promote the safety and well being of the public by ensuring adoption of land use regulations which minimize exposure of persons to hazards associated with the operation of the Airport;
- to provide a set of policies and criteria to assist the ALUC in evaluating the compatibility of proposed local actions on the part of referring agencies with the Airport and in determining the consistency of the proposed local action with the ALUP; and
- to provide guidance to local agencies in presenting proposed local actions to the ALUC for review.

2.2 AUTHORITIES
The ALUP for the Airport is prepared and adopted in accordance with:

- Sections 21670 to 21679.5 of the California Public Utilities Code;
- The ALUP Handbook, December, 1993; and
- Federal Aviation Regulations, Parts 77 and 150.

It is the desire and intent of the ALUC that the ALUP conform, to the greatest extent possible, with the standards and recommendations set forth in these documents, while reflecting the unique preferences and requirements of the San Luis Obispo area.

2.3 GEOGRAPHIC COVERAGE
The geographic area encompassed by the ALUP is termed the Airport Land Use Planning Area (Planning Area). The dimensions of this area were defined in 1977 and have not changed.

In general terms, the Planning Area is an irregular oval, which is aligned with its long axis in a northwest-southeast direction, parallel to the centerline of Runway 11-29 at the Airport. The dimensions of the oval are approximately 31,600 feet by 20,850 feet.

The Planning Area extends from a point approximately 1/2 mile southeast of the community of Edna on the southeast to West Oceanaire Drive in the Laguna Lake Subdivision on the northwest. To the north of the Airport,
the Planning Area extends to Sinsheimer School and Edgewood Drive in the City of San Luis Obispo. To the southeast and east, the boundary of the Planning Area is close to the ridgeline of the high terrain.

2.4 JURISDICTIONS AFFECTED BY THE ALUP

The ALUP for the Airport includes areas within the jurisdictions of the County of San Luis Obispo and the incorporated city of San Luis Obispo.

2.5 ACTIONS REVIEWED BY THE ALUC

2.5.1 Mandatory ALUC Review

2.5.1.1 Construction Plans for New Airports – No application for the construction of a new airport within San Luis Obispo County may be submitted to any local, state, regional, or federal agency unless that plan has been submitted to and approved by the ALUC.

2.5.1.2 Airport Expansions – No application for the expansion of the Airport which entails an amendment of the Airport Permit may be submitted to any local, state, regional, or federal agency unless that plan has been submitted to and approved by the ALUC.

Airport expansion is defined to include:

a. construction of any new runway
b. extension or realignment of an existing runway
c. acquisition of runway protection zones or any interest in land for the purposes above

2.5.1.3 Airport Master Plans – The County of San Luis Obispo or any succeeding owner of the Airport shall, prior to modification of its master plan, refer such proposed changes to the ALUC.

2.5.1.4 Actions by Referring Agencies – The County of San Luis Obispo and the City of San Luis Obispo must, prior to enacting certain ordinances and actions that affect lands within the Airport Planning Area refer such actions to the ALUC. Those local actions include:

a. general plans and general plan amendments
b. specific plans and specific plan amendments
c. zoning ordinances & zoning ordinance amendments
d. building regulations and modifications thereof

2.5.1.5 Individual Development Projects in Areas Under Jurisdiction of the County of San Luis Obispo – The Public Utilities Code does not mandate review by the ALUC of individual development projects when such projects do not require adoption of or amendments to a general or specific plan, zoning ordinance, or building regulation. The ALUC may, however, review individual development projects when they have been referred by a local agency or under the terms of an agreement with a local agency. In the unincorporated areas of San Luis Obispo County the General Plan and supporting planning instruments do not incorporate detailed provisions for land use or development in the vicinity of the San Luis Obispo County Regional Airport, but rather state that such development be consistent with the Airport Land Use Plan. Since, under the provisions of State law, no body other than an Airport Land Use Commission is empowered to make a determination of consistency with respect to
an adopted ALUP, it follows that all individual projects within portions of the Airport Planning Area which are under the jurisdiction of the County of San Luis Obispo require review by the ALUC. The county’s General Plan also provides that a determination of consistency rendered by the ALUC shall be final unless the Board of Supervisors shall overrule the decision by a four-fifths majority vote.

2.5.2 Optional ALUC Review

2.5.2.1 Review of Specific Proposed Development Projects in Areas Under Jurisdiction of the City of San Luis Obispo – In accordance with the recommendations of the Airport Land Use Planning Handbook of the California Department of Transportation, it shall be the policy of the ALUC to seek, encourage, negotiate, and enter into agreements with the City of San Luis Obispo to require voluntary review of proposed major individual development projects within the airport planning area which entail:

a. expansion of the sphere of influence of the City within the Airport Planning Area
b. residential development, including land divisions, consisting of five or more dwelling units or individual parcels
c. certain requests for variances from a referring agency’s height limitation ordinances, when the allowable height of improvements prior to any variance would extend to within 50 feet of any civil airport imaginary surface
d. major capital improvements (e.g., water, sewer, roads) that would promote urban development
e. certain proposed land acquisitions by the City (including acquisition of sites intended for schools, hospitals, jails or prisons, lakes, ponds, wetlands, or sewer treatment ponds)
f. any proposal for construction or alteration of a structure (including antennae) taller than 200 feet above the ground at any location within the City
g. any other proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities

In the case of individual project reviews undertaken as a result of these agreements, the comments, suggestions, and recommendations made by the ALUC will be presumed to be advisory in nature, unless specified otherwise in the agreement.

It is of note, however, should the ALUC determine that a general or specific plan has not been made consistent with the ALUP and when a referring agency has not adopted a general or specific plan by overriding the ALUC, the ALUC may require that the referring agency submit all subsequent actions, regulations, and permits to the ALUC for review.

2.6 APPLICABILITY OF ALUP DEVELOPMENT STANDARDS TO PROJECTS NOT REFERRED TO THE ALUC

As noted above, ALUC review of individual development projects within the City of San Luis Obispo is not mandated unless such projects require adoption of or amendments to a general or specific plan, zoning ordinance, or building regulation. The California Public Utilities Code, however, does require that the City of San Luis Obispo, prior to granting permits for the renovation or remodeling of an existing building, structure, or facility and before the construction of a new building, the City shall be guided by:

“the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article [i.e., P. U. C. Sections 21670 through 21679.5],"
and referred to as the Airport Land Use Planning Handbook, published by the division [of Aeronautics], and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Federal Code of Regulations, to the extent that the criteria has been incorporated into the plan prepared by a commission pursuant to Section 21675.”

As this ALUP is, in fact, a plan prepared in accord with P. U. C. Section 21675, the height, use, noise, safety, and density criteria established herein must, by State law, be adhered to in approving or denying any individual project, whether or not such project is referred to the ALUC for a determination of consistency.

2.7 ALUC ACTION CHOICES

In its consideration of any proposed local action referred to the ALUC, the ALUC shall make one of the following determinations:

a. the proposed local action is consistent with the ALUP of the Airport; or

b. the proposed local action is inconsistent with the ALUP of the Airport.

In addition, the ALUC may, but is not required to, make such additional comments, suggestions, or declarations with respect to the proposed local action as it shall deem fit and appropriate, and may, in particular, indicate to the referring agency, modifications in the proposed local action that would be likely to lead to a finding of consistency by the ALUC. Under no circumstances are such comments, suggestions, or declarations to be interpreted as a “conditional” or other finding of consistency. The referring agency, however, may choose, at its discretion, to amend the proposed local action in accord with the ALUC’s comments and resubmit it to the ALUC for consideration.

State law makes no provision for “exceptions” or “waivers” with regard to any determination of consistency made by the ALUC or of any provision, condition, or requirement of an ALUP. Neither the ALUC, its staff, nor the governing body, any subsidiary body, or staff of any referring agency may grant such exception or waiver.

2.8 LIMITATIONS OF THE ALUP

2.8.1 Existing Land Use

The ALUP applies only to new development within the Planning Area, and the ALUC has no authority over existing land use, whether or not such uses are compatible with the ALUP.

A land use is considered to be “existing” when one of the following conditions is met:

a vesting tentative map has been approved and all discretionary approvals have been obtained;

substantial construction investments by the landowner make it infeasible for the property to be used for anything other than its proposed use; or,

the land use physically exists.

Existing land uses that are incompatible with the ALUP’s Land Use Compatibility Policies will be considered “non-conforming” uses and will be allowed to remain, but shall not expand more than 10% beyond the permitted
project size at the time of the adoption of this amendment. No increase in the number of residential units for existing residential development will be allowed. If a non-conforming use is either abandoned or substantially destroyed (as defined by Chapter 22.09 of the San Luis Obispo County Land Use Ordinance or by the City of San Luis Obispo Municipal Code/Zoning Regulation Chapters 17.10 and 17.14), the Airport Land Use Commission must review the specific situation and determine whether continuation of the use would be consistent or inconsistent with the Airport Land Use Plan. If an owner wishes to retain an abandoned or retained use, the planning agency or governing body must first determine that, in the particular case, the private benefit is more important than the public objectives of the Airport Land Use Plan and the Airport Land Use Commission must determine that such use is compatible with airport operations.

The limitation on ALUC authority over existing land uses is not applicable when redevelopment or land use conversion is proposed. The fact that the land area associated with the project is already occupied by existing development either compatible or incompatible with the Airport becomes irrelevant when that land use will be replaced by a new development or use.

2.8.2 Airport Operations

Except for its authority to review airport master plans or modifications thereof, applications for airport expansion, and construction plans for new airports, the ALUC shall have no jurisdiction over the normal operation of the Airport.
SECTION 3
AIRPORT INFORMATION

For a general description of the Airport, see Appendix A. For the Airport Layout Plan, see Appendix B.

Tables 1, 2, and 3 have been constructed from data and projections presented in the 1998 Airport Master Plan and its associated EA/EIR and from activity records supplied by Airport Administration. Data for the year 2025 are extrapolated by extending Master Plan projections.

TABLE 1: PROJECTED ANNUAL OPERATIONS BY TYPE OF OPERATION: 1995 – 2025

<table>
<thead>
<tr>
<th></th>
<th>1995&lt;sup&gt;a&lt;/sup&gt;</th>
<th>2000&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2005&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2015&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2025&lt;sup&gt;c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>Commuter Airlines</td>
<td>23,931</td>
<td>24,800</td>
<td>27,800</td>
<td>32,000</td>
<td>36,200</td>
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<tr>
<td>Cargo Airlines</td>
<td>2,456</td>
<td>3,000</td>
<td>3,600</td>
<td>5,400</td>
<td>7,200</td>
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<tr>
<td>Air Taxi</td>
<td>2,000</td>
<td>2,280</td>
<td>2,370</td>
<td>2,560</td>
<td>2,750</td>
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<td>General Aviation</td>
<td>72,743</td>
<td>82,940</td>
<td>86,240</td>
<td>92,840</td>
<td>99,440</td>
</tr>
<tr>
<td>Military</td>
<td>599</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Total</td>
<td>101,729</td>
<td>114,020</td>
<td>121,010</td>
<td>133,800</td>
<td>146,590</td>
</tr>
</tbody>
</table>

<sup>a</sup> Reported tower operations. Total operations actually exceed these figures due to limited hours of tower operation.

<sup>b</sup> Projections from 1998 Airport Master Plan

<sup>c</sup> Extrapolation from data presented in 1998 Airport Master Plan
### TABLE 2: PROJECTED ANNUAL OPERATIONS BY AIRCRAFT TYPE: 1997 – 2025

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>1997(^a)</th>
<th>2002(^b)</th>
<th>2015(^b)</th>
<th>2025(^c)</th>
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<tr>
<td>Regional Jet</td>
<td>0</td>
<td>0</td>
<td>3,200</td>
<td>5,660</td>
</tr>
<tr>
<td>Commuter 40-59 Seats</td>
<td>0</td>
<td>2,340</td>
<td>9,600</td>
<td>15,180</td>
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<tr>
<td>Commuter 20-39 Seats</td>
<td>15,469</td>
<td>19,500</td>
<td>16,000</td>
<td>13,310</td>
</tr>
<tr>
<td>Commuter Less than 20 Seats</td>
<td>72,743</td>
<td>82,940</td>
<td>92,840</td>
<td>99,440</td>
</tr>
<tr>
<td>Business Jet</td>
<td>354</td>
<td>730</td>
<td>1,630</td>
<td>2,320</td>
</tr>
<tr>
<td>Twin Engine Turboprop</td>
<td>3,898</td>
<td>4,910</td>
<td>5,940</td>
<td>6,730</td>
</tr>
<tr>
<td>Twin Engine Piston</td>
<td>8,253</td>
<td>8,750</td>
<td>10,470</td>
<td>11,590</td>
</tr>
<tr>
<td>Single Engine Piston</td>
<td>74,080</td>
<td>74,060</td>
<td>81,020</td>
<td>86,320</td>
</tr>
<tr>
<td>Helicopter</td>
<td>1,949</td>
<td>2,370</td>
<td>2,740</td>
<td>3,020</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>101,872</strong></td>
<td><strong>116,820</strong></td>
<td><strong>133,800</strong></td>
<td><strong>146,590</strong></td>
</tr>
</tbody>
</table>

\(^a\) Reported tower operations. Total operations actually exceed these figures due to limited hours of tower operation.

\(^b\) Projections from 1998 Airport Master Plan

\(^c\) Extrapolation from data presented in 1998 Airport Master Plan
### TABLE 3: PROJECTED ANNUAL OPERATIONS BY AIRCRAFT TYPE AND TIME OF DAY: 1997 – 2025

<table>
<thead>
<tr>
<th>Aircraft Type</th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>1997</td>
<td>2002(^a)</td>
<td>2015(^a)</td>
<td>2025(^b)</td>
</tr>
<tr>
<td><strong>Commuter/Air Taxi</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arrivals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>6,160</td>
<td>8,320</td>
<td>10,240</td>
<td>12,160</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>1,930</td>
<td>2,600</td>
<td>3,200</td>
<td>3,800</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>1,550</td>
<td>2,080</td>
<td>2,560</td>
<td>3,040</td>
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<tr>
<td><strong>Departures</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>6,960</td>
<td>9,360</td>
<td>11,520</td>
<td>13,680</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>1,160</td>
<td>1,560</td>
<td>1,920</td>
<td>2,280</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>1,550</td>
<td>2,080</td>
<td>2,560</td>
<td>3,040</td>
</tr>
<tr>
<td><strong>Twin Engine Prop</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arrivals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>4,310</td>
<td>4,850</td>
<td>5,830</td>
<td>6,800</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>1,280</td>
<td>1,430</td>
<td>1,720</td>
<td>2,010</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>490</td>
<td>546</td>
<td>660</td>
<td>770</td>
</tr>
<tr>
<td><strong>Departures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>4,310</td>
<td>4,850</td>
<td>5,830</td>
<td>6,800</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>1,280</td>
<td>1,430</td>
<td>1,720</td>
<td>2,010</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>490</td>
<td>546</td>
<td>660</td>
<td>770</td>
</tr>
<tr>
<td><strong>Single Engine Prop</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arrivals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>31,480</td>
<td>31,480</td>
<td>34,430</td>
<td>37,390</td>
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<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>4,070</td>
<td>4,070</td>
<td>4,460</td>
<td>4,840</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>1,480</td>
<td>1,480</td>
<td>1,620</td>
<td>1,760</td>
</tr>
</tbody>
</table>

\(^{a}\) Projections from Airport Master Plan EA/EIR, 1998

\(^{b}\) Extrapolation from data presented in Airport Master Plan EA/EIR, 1998
### TABLE 3: PROJECTED ANNUAL OPERATIONS BY AIRCRAFT TYPE AND TIME OF DAY:
1997 – 2025 (CONTINUED)

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>1997</th>
<th>2002&lt;sup&gt;a&lt;/sup&gt;</th>
<th>2015&lt;sup&gt;a&lt;/sup&gt;</th>
<th>2025&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Engine Prop (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Departures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>31,480</td>
<td>31,480</td>
<td>34,430</td>
<td>37,390</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>4,070</td>
<td>4,070</td>
<td>4,460</td>
<td>4,840</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>1,480</td>
<td>1,480</td>
<td>1,620</td>
<td>1,760</td>
</tr>
<tr>
<td><strong>General Aviation Jet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrivals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>159</td>
<td>329</td>
<td>734</td>
<td>1,140</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>18</td>
<td>37</td>
<td>82</td>
<td>127</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Departures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>159</td>
<td>329</td>
<td>734</td>
<td>1,140</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>18</td>
<td>37</td>
<td>82</td>
<td>127</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Helicopter</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrivals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>779</td>
<td>950</td>
<td>1,100</td>
<td>1,240</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>195</td>
<td>237</td>
<td>274</td>
<td>311</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Departures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime (7 am – 7 pm)</td>
<td>779</td>
<td>950</td>
<td>1,100</td>
<td>1,240</td>
</tr>
<tr>
<td>Evening (7 pm – 10 pm)</td>
<td>195</td>
<td>237</td>
<td>274</td>
<td>311</td>
</tr>
<tr>
<td>Night (10 pm – 7 am)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>a</sup> Projections from Airport Master Plan EA/EIR, 1998

<sup>b</sup> Extrapolation from data presented in Airport Master Plan EA/EIR, 1998
SECTION 4
LAND USE POLICIES

4.1 INTENDED USE

This section of the ALUP is intended to apply to determination of consistency by the ALUC of the following proposed local actions:

- a. General plans or general plan amendments
- b. Specific plans or specific plan amendments
- c. Zoning ordinances & zoning ordinance amendments
- d. Modifications of building regulations
- e. Individual development proposals

The Land Use Policies may also be of use to local agencies or private individuals in anticipating determinations which are likely to be made by the ALUC.

4.2 GENERAL LAND USE POLICIES

a. Policy G-1: Notwithstanding any other provision of this ALUP, a proposed project or local action will be determined to be inconsistent with the ALUP if the information required for review of the proposed local action is not provided by the referring agency.

b. Policy G-2: Notwithstanding any other provision of this ALUP, a proposed project or local action will be determined to be inconsistent with the ALUP if the proposal would, in the considered opinion of ALUC, present specific incompatibilities to the continued economic vitality and efficient operation of the Airport with respect to safety, noise, overflight or obstacle clearance.

c. Policy G-3: Except as provided in Policy G-4, a proposed project or local action will be determined to be inconsistent with the ALUP if the proposal is not in conformance with all applicable Specific Land Use Policies. In the event that the site affected by a proposed project or local action is located in more than one noise exposure area or aviation safety area, the standards for each such area will be applied separately to the land area lying within each noise or safety zone.

d. Policy G-4: When the site affected by a proposed project or local action is located in more than one noise exposure area or aviation safety area, the Airport Land Use Commission may, at its sole discretion, elect not to apply the requirements of Policy G-3 if:
   i. the total gross area(s) within the more restrictive area(s) is 2 acres or less, and
   ii. the land area(s) within the more restrictive area(s) is less than 50% of the total gross land area affected by the referred project or local action

In such instance, the ALUC may elect to apply the policies applicable to the least restrictive noise and/or safety zone to the entire site affected by the project or local action. The ALUC must adopt specific findings that the proposed project or local action, so considered, would not result in the potential development of land uses incompatible with current or future airport operations.
4.3 SPECIFIC LAND USE POLICIES: NOISE

4.3.1 Objective

The objective of the noise policies of this ALUP is to minimize the number of people exposed to frequent and/or high levels of airport noise or to frequent and/or high cumulative noise levels of which airport noise is one component. The basic strategy for achieving noise compatibility is to limit the development of land uses that are particularly sensitive to noise. The most acceptable land uses are ones that either involve few people (especially people engaged in outdoor activities), or generate significant noise levels themselves (such as transportation facilities or industrial uses).

In furtherance of this objective, this ALUP follows the recommendations of the ALUP Handbook in adopting the projected 55 dB CNEL contour as the maximum “acceptable residential noise level.” Adoption of 55 dB CNEL as the maximum acceptable residential noise level is supported by substantial authority, including:

- **The Present Character of Properties Adjacent to the Airport** – Despite some pockets of residential and/or light industrial development, the majority of the environment surrounding the Airport is of a “quiet, rural” nature. Page 7-29 of the Caltrans *Airport Land Use Planning Handbook* (January, 2002) indicates that 55 dB CNEL or DNL is the most appropriate value for adoption as a residential noise compatibility criterion in such settings.

- **Local Experience** - Existing residential land uses within or even close to the projected 55 dB CNEL contour of the Airport have generated numerous noise complaints and significant opposition to airport expansion. This suggests that the local community may be relatively sensitive to aircraft noise and overflight impacts and validates the concept that residential land uses within this contour would not be compatible with the long term growth and viability of the Airport.

- **The California Public Utilities Code and the California Code of Regulations** – Section 21669 of the California Public Utilities Code requires that state Department of Transportation to “adopt noise standards governing the operation of aircraft and aircraft engines for airports” and further indicates that “The standards shall be based upon the level of noise acceptable to a reasonable person residing in the vicinity of the airport.”

Title 21 of the California Code of Regulations deals more specifically with this issue and defines the policies of the Department of Transportation, as required by the statute. Title 21 emphasizes that the specific noise levels put forth in this Section are not intended to supplant or supersede the judgment of local authorities or airport land use commissions. Two important sections in this regard are:

“§5002 Liberal Construction
This subchapter shall be liberally construed and applied to promote its underlying purposes which are to protect the public from noise and to resolve incompatibilities between airports and their surrounding neighbors.”

and

“§5002 Provisions Not Exclusive
....The noise limits specified herein are not intended to prevent any local government to the extent not prohibited by federal law or any airport proprietor from setting more stringent standards.”

The provisions of Title 21 merely specify maximum levels of airport noise which cannot be exceeded at the local level. The provision is analogous to the situation with the automobile speed limit. Local jurisdictions are free to set speed limits appropriate to their own community, but may not exceed the state-mandated maximum of 65 miles per hour.
With regards to the maximum noise limits permitted by the Department of Transportation, Section 5006 states that:

“The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for the purpose of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas...” (emphasis added)

The Department of Transportation, however, recognizes that the 65 dB CNEL level is not appropriate in settings which are other than “urban” in character and that noise levels which are measured in different settings must be adjusted in order to be compared with one another or with suggested standards. This process is described in some detail in the ALUP Handbook (pages 7-23 through 7-28) and is termed “normalization.” According to Table 7B of the ALUP Handbook, noise levels in the vicinity of the Airport should be normalized by adding 10 dB to the measured value (or subtracting 10 dB from the maximum acceptable CNEL value). This results in a recommended maximum acceptable residential noise level of 55 dB CNEL, which is in agreement with the provisions of this amendment.

In addition to the above, aircraft overflights have been characterized by some noise experts (Niedzielski, Minnesota Pollution Control Agency) as “impulsive” in nature. Such consideration would require an additional normalization of 5 dB, bringing the state-recommended noise standard to 50 dB CNEL for the San Luis Obispo area.

The process of normalizing sound levels in the vicinity of the Airport, then, requires the addition of 10 to 15 dB to the measured CNEL value. At the 55 dB CNEL contour, the normalized CNEL would be in the range of 65 to 70 dB. In the document NTID 300.3 Community Noise, the U.S. Environmental Protection Agency (EPA) has correlated community reaction to noise with normalized CNEL values, as calculated from documented case histories. At a level of 65 to 70 dB normalized CNEL, widespread complaints and/or a single threat of legal action is to be expected. It is clear, therefore, that the 55 dB CNEL noise standard adopted in this amendment as the maximum acceptable noise level for new residential development is the least restrictive standard which will meet the goal “to protect the public from noise and to resolve incompatibilities between airports and their surrounding neighbors” as required in Title 21.

In the case of the current amendment, moreover, it is not necessary to speculate as to whether the specified 55 dB CNEL of maximum noise level for residential and other noise-sensitive development is acceptable under California Department of Transportation guidelines, as the Department of Transportation has specifically reviewed this amendment and has found its residential noise policies to be appropriate.

**Recommendations of the U.S. EPA** – The U.S. EPA, in its publication *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (often referred to as the *Levels Document*), provides specific recommendations concerning the maximum levels of environmental noise which should be permitted. Although U.S. EPA guidelines designate noise exposure levels in Ldn, rather than CNEL, in the case of the Airport, these two measurements are expected to be quite similar.

U.S. EPA standards suggest that “outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places where quiet is a basis for use,” the ambient exterior noise level should be less than 55 dB Ldn. In addition, the U.S. EPA suggests that interior noise levels in residential areas should be less than 45 dB Ldn. Since noise attenuation for typical warm-climate residential construction, with windows open is approximately 12 dB, this interior standard would correspond to an exterior noise level less than 57 dB Ldn.

The U.S. EPA also addresses the issue of community noise levels. The *Levels Document* categorizes communities as Quiet Suburban (QS), Normal Suburban (NS), Urban (U), or Noisy Urban (NU). Ambient noise levels prescribed in each of these settings are 50 dB for Quiet Suburban, 55 dB for
Normal Suburban, 60 dB for Urban, and 65 dB for Noisy Urban. Since virtually all of the undeveloped land within the Planning Area is presently rural or quiet suburban, a maximum acceptable residential noise level of 50 dB would be most consistent with EPA guidelines. Even if these areas are classified according to planned use, rather than present use, they would be of normal suburban character and an exterior residential noise level of 55 dB would be the maximum permissible.

In view of these findings, the present amendment is consistent with or less stringent than noise guidelines specified by the U.S. EPA.

**Recommendations of the World Health Organization (WHO)** – In March of 1999, a task force of the WHO met in London and reviewed extensively the current literature on the health effects of ambient noise exposure. The document, Guidelines for Community Noise, which resulted from this session, contains the standards for maximum acceptable community noise levels (see Table 4).

### TABLE 4: GUIDELINES FOR COMMUNITY NOISE

<table>
<thead>
<tr>
<th>Environment</th>
<th>Sound Level dB LAeq</th>
<th>Equivalent Exterior Sound Level dB LAeq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor living areas</td>
<td>50 – 55</td>
<td>50 – 55</td>
</tr>
<tr>
<td>Indoor dwellings</td>
<td>35</td>
<td>47 – 50&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Bedrooms</td>
<td>30</td>
<td>42 – 45&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>School classrooms</td>
<td>35</td>
<td>47 – 50&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>School playgrounds, outdoor</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Hospitals, patient rooms</td>
<td>30</td>
<td>42 – 45&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hospitals, treatment/observation rooms</td>
<td>35</td>
<td>47 – 50&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Industrial, commercial &amp; traffic areas</td>
<td>70</td>
<td>n/a&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Music through earphones</td>
<td>85</td>
<td>n/a&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ceremonies and entertainment</td>
<td>100</td>
<td>n/a&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> The ear has different sensitivities to different frequencies, being least sensitive to extremely high and extremely low frequencies. Because of this varied sensitivity, the term “A weighting” is used: all the different frequencies, that make up the sound, are assessed to give a sound pressure level. The sound pressure level measured in dB is referred to as “A-weighted” and expressed as dB LAeq.

<sup>b</sup> Range indicates values obtained using average building attenuation figures given by the EPA for warm climates, windows open (12 dB) and for average across the nation (15 dB).

<sup>c</sup> Exterior sound level is not applicable, as the listed use is anticipated to be the primary source of noise exposure.

The 55 dB CNEL standard established by the ALUP as the maximum acceptable averaged noise level for new residential land uses is consistent with WHO recommendations with respect to outdoor living areas and is considerably less restrictive than WHO guidelines with regard to indoor living areas, bedrooms and classrooms.

In addition to recommendations for average noise exposure, the WHO has specified standards for maximum exposure to single noise events (see Table 5).
### Table 5: Guidelines for Single Noise Events

<table>
<thead>
<tr>
<th>Environment</th>
<th>Sound Level dB LAmax</th>
<th>Equivalent Exterior Sound Level dB LAmax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor facade of living areas, night</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Bedrooms</td>
<td>45</td>
<td>57 – 60&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hospitals, patient rooms (night)</td>
<td>40</td>
<td>52 – 55&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Music through earphones</td>
<td>110</td>
<td>n/a&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ceremonies and entertainment</td>
<td>110</td>
<td>n/a&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> The expression dB LAmax is the maximum noise level of an individual event. Measurements are to be A-weighted and are to be obtained using a *Fast* response time.

<sup>b</sup> Range indicates values obtained using average building attenuation figures given by the EPA for warm climates, windows open (12 dB) and for average across the nation (15 dB).

<sup>c</sup> Exterior sound level is not applicable, as the listed use is anticipated to be the primary source of noise exposure.

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**Recommendations of the Natural Resources Defense Council (NRDC)** – In 1995, the NRDC undertook a study of noise and land use issues at 125 U.S. airports. The analysis and conclusions of that study were subsequently published in a document entitled *Flying Off Course: Environmental Impacts of America’s Airports*. In this report, the NRDC advocates the use of the 55 dB CNEL contour for all “funding and planning decisions.” The provisions of this amendment are consistent with that standard.

The ALUP recognizes, however, that, within areas already devoted to residential land use within the 55 dB CNEL contour, further development of isolated parcels may not notably increase the degree of incompatibility which currently exists. In consequence, a separate standard of 60 dB projected CNEL is adopted as the maximum “acceptable noise level” for residential infill development.

### 4.3.2. Definitions

#### 4.3.2.1 Extremely Noise Sensitive Land Uses

Land uses for which customary or anticipated activities may be disrupted to a significant degree by aviation noise impacts and for which sufficient mitigation to ensure compatibility with current or future airport operations is not feasible. The usual characteristics of this category of noise sensitive land uses are:

- an expectation by occupants of a quiet or peaceful environment (either continuously or at certain times during the day or night), and
- difficulty in providing sufficient noise mitigation due to structures with openable windows or outdoor activity areas.

Included in the category of Extremely Noise Sensitive Land Uses are:

a. all residential land uses (rural residential, suburban residential, single-family, multifamily, mobilehomes and mobilehome parks, and caretakers quarters)
b. outdoor theatres, amphitheaters, and public assembly areas (does not include sports stadiums, athletic fields, playgrounds, public swimming pools, tennis courts, golf courses, or small picnic areas)

c. restaurants, bars, taverns, food takeouts, wine tasting rooms, and similar business, if such business include outdoor eating or drinking areas

d. campgrounds (with overnight sleeping facilities)

e. bed and breakfast inns, homestay facilities

4.3.2.2 Moderately Noise Sensitive Land Uses – land uses for which customary or anticipated activities may be disrupted to a significant degree by aviation noise impacts, but for which sufficient mitigation to ensure compatibility with current or future airport operations is feasible by the incorporation of special design features and construction techniques. The usual characteristics of this category of noise sensitive land uses are:

- an expectation by occupants of a quiet or peaceful environment (either continuously or at certain times during the day or night) and

- structures associated with the land use will feature fixed windows and central climate control systems

- activities associated with the land use are confined exclusively or almost exclusively to indoor areas.

Included in the category of Moderately Noise Sensitive Land Uses are:

a. hotels and motels

b. restaurants, bars, taverns, food takeouts, wine tasting rooms, and similar business, without outdoor eating or drinking areas

c. temporary sleeping quarters for air crews and other employees in transit

d. offices, office buildings

e. hospitals, nursing homes, residential care facilities and other medical facilities offering 24-hour care

f. churches, synagogues, temples, monasteries and convents

g. mortuaries, funeral parlors

h. indoor theatres, music halls, meeting halls, and other indoor public assembly facilities (but not including facilities utilized exclusively by pilots’ organizations, airport or airline employees, or other airport related groups)

i. studios – radio, television, recording, rehearsal, and performance facilities

j. schools and day care centers (but not including flight schools, aviation mechanics training schools, airline orientation facilities or other institutions offering instruction only in aviation-related fields)

k. libraries (excluding aviation-oriented libraries)

l. museums (excluding air museums)

4.3.2.3 Infill development - For purposes of this ALUP, a determination that a particular land use represents infill development shall be made only if all of the following conditions are met:

a. The proposed development area is bounded by uses similar to those proposed, and

b. The proposed development does not extend the perimeter of the area already developed with noise-sensitive uses, and

c. Increased intensity and/or incompatibility of noise-sensitive uses is not permitted through use permits, density transfers or other strategies, and
d. Other applicable development conditions (such as avigation easement dedication, disclosure requirements, and special structural noise attenuation criteria) are met.

4.3.2.4 Projected 55 dB CNEL Contour - For purposes of this ALUP, the term projected 55 dB CNEL contour shall mean the 55 dB CNEL contour defined for airfield capacity conditions by the noise study performed by Brown-Buntin Associates (April, 2001) or such other succeeding noise contour projections as may be accepted and deemed valid by the ALUC and adopted by amendment of this ALUP (see Figure 2).

4.3.2.5 Projected 60 dB CNEL Contour - For purposes of this ALUP, the term projected 60 dB CNEL contour shall mean the 60 dB CNEL contour defined for airfield capacity conditions by the noise study performed by Brown-Buntin Associates (April, 2001) or such other succeeding noise contour projections as may be accepted and deemed valid by the ALUC and adopted by amendment of this ALUP (see Figure 2).

4.3.2.6 Area of Demonstrated Noise Incompatibility - For purposes of this ALUP, the term area of demonstrated noise incompatibility shall be defined to be any community or neighborhood which has shown itself to be affected by airport-related noise concerns by

a. a substantial ongoing pattern of noise complaints received and logged by airport administration from multiple members of the community; or

b. multiple airport noise concerns from the area recorded verbally or in written form on the public records of the ALUC or any referring agency.

4.3.3. Noise Mitigation

A proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance or zoning ordinance amendments, building regulation modification, or individual development proposal will be deemed to incorporate sufficient requirements for noise mitigation within the 55 dB CNEL airport noise contour only if all of the following conditions are met:

1. The proposed project or local action specifically requires mitigation of aviation-related interior noise impacts to the levels indicated by Table 6 or lower.

2. The proposed project or local action specifically requires attenuation of aviation-related interior noise impacts as indicated by Table 6. For projects or local actions which lie between the single event contours shown in Figure 2, the required degree of noise attenuation may be extrapolated.

3. The proposed action or project either:
   a. specifies the design features and construction techniques necessary to achieve the requisite degree of noise mitigation, or
   b. requires that the design features and construction techniques necessary to achieve the requisite degree of noise attenuation shall be determined by and constructed in accordance with an analysis performed by a person or firm qualified in acoustic design and noise mitigation. The report of such consultant is to be submitted, in its entirety, with the referral.
### TABLE 6: MAXIMUM ALLOWABLE INTERIOR NOISE EXPOSURE FROM AVIATION-RELATED NOISE SOURCES

<table>
<thead>
<tr>
<th>Single Event(^1) Interior Aviation Noise Level</th>
<th>Degree of Noise Attenuation Required (dB)</th>
<th>Single Event Noise Contour</th>
</tr>
</thead>
<tbody>
<tr>
<td>dB L(_{Amax})</td>
<td>85 dB</td>
<td>75 dB</td>
</tr>
<tr>
<td>Hotels and motels – sleeping rooms</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>Non-sleeping areas</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Restaurants, bars, taverns, and like uses</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Temporary sleeping quarters for air crews and other employees in transit</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>Offices, office buildings</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Hospitals, nursing homes, residential care facilities and other medical facilities offering 24-hour care – sleeping rooms</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>Non-sleeping areas</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Churches, synagogues, temples, monasteries and convents</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Mortuaries, funeral parlors</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Indoor theatres, music halls, meeting halls, and other indoor public assembly facilities(^3)</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Studios – radio, television, recording, rehearsal, and performance facilities</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Schools and day care centers(^4)</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td>Libraries (excluding aviation-oriented libraries)</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>Museums (excluding air museums)</td>
<td>50</td>
<td>35</td>
</tr>
</tbody>
</table>

\(^1\) The reference event for determination of required single event noise mitigation shall be the straight-in arrival of a regional airline jet landing on Runway 29 and the straight-out departure of a regional airline jet from Runway 29. Measurements are to be of the maximum noise level, are to be A-weighted, and are to be obtained using a Fast response time.

\(^2\) Normal construction techniques are assumed to provide adequate noise attenuation.

\(^3\) Not including facilities utilized exclusively by pilots’ organizations, airport or airline employees, or other airport related groups

\(^4\) Not including flight schools, aviation mechanics training schools, airline orientation facilities or other institutions offering instruction only in aviation-related fields

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### 4.3.4. Policies

Notwithstanding any other provision of this ALUP except for the specific provisions set forth in Section 6 (Specific Land Use Provisions for the Margarita Area), a proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance or zoning ordinance amendments, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed project or local action:

a. **Policy N-1** – Would permit or fail to sufficiently prohibit establishment within the projected 60-dB CNEL contour of any extremely noise-sensitive land use.

b. **Policy N-2** – Would permit or fail to sufficiently prohibit any extremely noise-sensitive land use within the projected 55-dB CNEL contour, with the exception of developments which meet the criteria delineated in Section 4.3.2.4 for designation as infill.
Airport Noise Contours
- Projected 50 dB airport noise contour
- Projected 55 dB airport noise contour
- Projected 60 dB airport noise contour

Airport Land Use Zones
1. Zone 2 – Other airport property
2. Zone 3 – Approach and climbout extensions
3. Zone 4 – Potential great conflict with airport operations
4. Zone 5 – Potential moderate conflict with airport operations
5. Zone 6 – Other land within the airport planning area
6. Airport Land Use Commission to be advised of proposed development in this area

Airport Noise Contours are projected to runway capacity
**SINGLE EVENT NOISE CONTOURS**

Outer Contour represents 65 dB(A) at ground level

Middle Contour represents 75 dB(A) at ground level

Inner Contour represents 85 dB(A) at ground level

*Reference event is the arrival and departure of a regional airline jet aircraft at the San Luis Obispo County Regional Airport. The noise impact of a 1970s to 1980s-era business jet or of an airliner suitable to cross-country operations would be substantially greater.*
c. **Policy N-3** – Would permit or fail to sufficiently prohibit any moderately noise-sensitive land use within the projected 55-dB CNEL contour, with the exception of developments which meet the requirements for mitigation of interior noise levels specified in Table 6 and in Section 4.3.3.

d. **Policy N-4** – Would permit or fail to sufficiently prohibit, in any location which is within or adjacent to an area of demonstrated noise incompatibility or in an acoustic environment substantially similar to an area of demonstrated noise incompatibility:

   a. Any new residential or other extremely noise-sensitive development
   b. Any new moderately noise-sensitive development, unless adequate, specific, and detailed provisions are set forth to mitigate noise incompatibility between allowable or proposed noise-sensitive uses (including foreseeable outdoor activities) and airport operations.

### TABLE 7: SUMMARY OF COMPATIBILITY OF NOISE SENSITIVE LAND USES WITH PROJECTED CNEL CONTOURS FOR THE SAN LUIS OBISPO COUNTY REGIONAL AIRPORT

<table>
<thead>
<tr>
<th>CNEL Level</th>
<th>Extremely Noise Sensitive Land Uses</th>
<th>Moderately Noise Sensitive Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside 60 dB CNEL contour</td>
<td>Prohibited</td>
<td>With mitigation²</td>
</tr>
<tr>
<td>Between 55 and 60 dB contours</td>
<td>Infill only¹</td>
<td>With mitigation²</td>
</tr>
<tr>
<td>Outside 55 dB contour</td>
<td>Allowable</td>
<td>Allowable</td>
</tr>
</tbody>
</table>

¹ Specific criteria defined by the Airport Land Use Plan for designation as infill development must be met.
² Mitigation requirements specified by the Airport Land Use Plan must be met.
4.4.4 SPECIFIC LAND USE POLICIES: SAFETY

4.4.1 Objective

The objective of the safety policies of this ALUP is to minimize the risks to the safety and property of persons on the ground associated with potential aircraft accidents and to enhance the chances for survival of the occupants involved in an accident which takes place beyond the immediate runway environment.

An effective approach to accomplishing this objective must include all of the following elements:

a. identifying areas of aviation safety risk
b. limiting the number of persons on the ground who are exposed to aviation safety hazards by restricting the allowable density of residential and nonresidential development in these areas
c. reducing the potential severity of an aviation-related incident by prohibiting, in areas of aviation safety hazard, land uses characterized by a limited ability of occupants to evacuate an accident scene
d. reducing the potential severity of an aviation-related incident by prohibiting, in areas of aviation safety hazard, land uses which include features such as above ground storage of flammable materials, fuel pumping facilities, above ground electric transmission lines or switching facilities, and above ground pipelines carrying flammable materials, which could substantially contribute to the severity of an aircraft accident
e. preserving, in areas subject to aviation safety risk, sufficient open space to afford the pilot of a disabled aircraft a reasonable opportunity to effect an emergency off-airport landing without impacting occupied structures or objects which would reduce the likelihood that the crew and passengers will survive the incident.

4.4.2 Definitions

4.4.2.1 Special Function Land Use - For purposes of this ALUP, the term special function land use shall be defined to include certain types of land use which are commonly regarded as requiring special protection from hazards such as aircraft accidents. These uses fall into two categories:

a. impaired egress uses – land uses for which the significant common element is the relative inability of the people occupying the space to move out of harm’s way; includes elementary and secondary schools, hospitals, nursing homes, and other similar uses; and
b. unusually hazardous uses – land uses which include features which could substantially contribute to the severity of an aircraft accident if they were to be involved in one; includes above ground storage of substantial quantities of flammable materials, fuel pumping facilities, above ground electric transmission lines or switching facilities, above ground pipelines carrying flammable materials, and other similar uses.
4.4.2.2 High Intensity Land Use – For purposes of this ALUP, the term high intensity land use shall be defined as any use which is characterized by a potential to attract dense concentrations of persons to an indoor or outdoor area, even for a limited period of time. Such uses include:

a. amusement parks, fairgrounds
b. convention/exhibit halls, major auditoriums
c. stadiums and arenas
d. temporary events attracting dense concentrations of people – fairs, circuses, carnivals, revival meetings, sports tournaments, conventions, but not including events for which exposure to aviation safety hazard is a well-known expectation (air shows, airport open houses, pilots meetings, etc.)

4.4.2.3 Reserve Space - For purposes of this ALUP, reserve space shall be defined as land which:

a. meets the design criteria specified in Table 8 and
b. is restricted in perpetuity by deed restriction, easement, or other suitable legal instrument to uses characterized by low occupancy levels and substantially free of structures.

Land uses which may, if the standards established in Table 8 are met, be consistent with this definition of reserve space include:

a. Undeveloped land – “green belt” reserve
b. Parks
c. Agriculture
d. Certain low intensity recreational uses – e.g., golf courses, shooting ranges
e. Cemeteries

In previous editions of the Airport Land Use Plan, the term “open space” was used to refer to this type of land use. The present version has changed to the phrase reserve space to avoid confusion with the concept of open space as it is used in local planning documents.

4.4.2.4 Building Coverage - For purposes of this ALUP, the term “building coverage” shall mean the total percentage of the gross area of a designated property or group of properties which is encompassed by the footprint of any structure, whether or not such structure is intended for human habitation.

4.4.2.5 Dwelling Unit - For purposes of this ALUP, a dwelling unit is defined as a structure or part of a structure intended to serve as the residence of an individual, family, or group of unrelated individuals sharing living quarters by mutual consent. For specific housing types, number of dwelling units is to be enumerated as follows:

a. Single family detached housing – Each structure shall be counted as one dwelling unit.
b. Single family detached housing with secondary units allowed – Each primary residential structure shall be counted as one dwelling unit and each actual or allowable secondary residential structure shall count as one dwelling unit.
c. Duplexes, triplexes, quadraplexes, apartment buildings, condominiums, and town houses – Each structure or part of a structure which can be rented, leased, or sold independently shall be counted as one housing unit.
## TABLE 8: DESIGN CRITERIA FOR RESERVE SPACE AREAS

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>The minimum size of any Reserve Space area shall be 60 x 1000 feet. A size of 100 x 2000 feet or greater is suggested.</td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td>Reserve Space shall be distributed more or less evenly within each Aviation Safety Area in such manner as to provide effective mitigation of aviation safety hazards. Arbitrary clustering of Reserve Space in isolated portions of any Aviation Safety Area is not acceptable.</td>
</tr>
<tr>
<td><strong>Topography</strong></td>
<td>Terrain shall be level or gently rolling. Abrupt changes in slope (such as cliffs, bluffs, berms, ravines, creek beds) are not acceptable.</td>
</tr>
</tbody>
</table>
| **Obstructions**| • There is no requirement for removal of rocks, but areas in which the presence of many large rocks or boulders would constitute a hazard to aircraft shall not be approvable as Reserve Space  
  • Within any given Reserve Space area, at least one area must exist which is a minimum of 60 x 1000 feet in size with maximum grade not to exceed 5%; which is free of all streets, roads, highways, parking lots, rights-of-way, vehicles, fences, light poles, trees, and fixed athletic equipment; and which is not overhung by pole-mounted light fixtures or by the canopies of nearby trees (or, in the case of new plantings, by the maximum anticipated canopies of trees at maturity). No above-ground utility poles or wires may be located within 500 feet of this 60 x 1000 foot area. In addition, the center 30 x 800 feet of this area is to be maintained free of curbs, gutters, planting areas, staked crops or plantings, and headstones. Illumination may be provided by bollard lights, so long as the height of each bollard is less than three feet and so long as no bollard lights are located within the center 30 x 800 foot area.  
  • Except within the 60 x 1000 foot area described above, fences are acceptable within Reserve Space areas, provided that they are of wire strand (“barbed wire”) or chain link construction. Wood, concrete, concrete block, brick, or stone fences are not permitted.  
  • All light poles within the Reserve Space area shall be designed and colored in such a manner as to be easily visible from the air and shall be illuminated during all hours of darkness (although the level of illumination may, if desired, be reduced during non-business hours). The use of vertical banners or signs mounted to light poles is encouraged as a means to improve the visibility of these fixtures.  
  • Structures (including bleachers or grandstands for athletic events) are prohibited in Reserve Space areas.                                                                                                                                                                           |
| **Agricultural**| • Grazing of cattle, sheep, goats, and the like is acceptable in Reserve Space areas. Specialized animal facilities (such as feedlots, poultry farms, hog farms) and barns or other structures are prohibited  
  • Cultivation of crops not requiring staking is allowed.  
  • Cultivation of staked crops is allowed, provided that, in any given Reserve Space area, at least one area exists which is a minimum of 30 x 800 feet in size and which is free of stakes-as described above.  
  • Forestry and orchards are allowed, provided that, in any given Reserve Space area, at least one area exists which is a minimum of 60 x 1000 feet in size and which is free of intrusion by trees as described above. |
FIGURE 3: SAMPLE LAYOUT OF RESERVE SPACE AREA

- Reserve Space area
- Minimum 60 x 1000 foot area – Streets, roads, highways, parking lots, rights-of-way, vehicles, fences, light poles, trees, and fixed athletic equipment prohibited. No above-ground utility poles or wires may be located within 500 feet of this 60 x 1000 foot area (yellow hatching).
- Minimum 30 x 800 foot area – Streets, roads, highways, parking lots, rights-of-way, vehicles, fences, light poles, bollard lights, trees, fixed athletic equipment, curbs, gutters, planting areas, staked crops or plantings, and headstones prohibited.

Scale (feet)

0 100 200 300 400 500
d. Rooming houses, boarding houses, long-term residential hotels, dormitories – Each bedroom shall be counted as 0.5 housing unit.

4.4.2.6 Residential Density - For purposes of this ALUP, the terms residential density is defined as the maximum number of dwelling units per acre of gross area of land area allowable under the provisions of a referral to the ALUC. If the area subject to a referred local action encompasses more than one Aviation Safety Area (as shown in Figure 4) residential density must be calculated independently for each Safety Area and standards established by this ALUP must not, except as provided in Policy G-4, be exceeded in any Safety Area. Acreage within each Aviation Safety Area which is allocated for streets or utility easements or which is dedicated in perpetuity to remain as reserve space may be included in the gross area for purposes of determining the residential density in that Safety Area.

If a referred local action includes both residential and nonresidential land uses within a given Aviation Safety Area, acreage allocated to nonresidential uses other than streets, utility easements, or permanent reserve space, may not be included in the gross area employed for purposes of determining residential density in that Safety Area. In addition, acreage devoted to streets, utility easements, or reserve space may not be “double-counted” in determining nonresidential density and residential density (i.e., acreage devoted to streets, utility easements, or reserve space which is utilized in computing nonresidential density may not also be used in computing the residential density.)

In Aviation Safety Areas S-1c and S-2, however, allowances are made to permit mixed use development at a level of combined residential and nonresidential density which is greater than permitted by the preceding paragraph. Permissible densities for Area S-1c and Area S-2 are shown in Figures 6 and 7.

4.4.2.7 Nonresidential Density - For purposes of this ALUP, the definition of the term nonresidential density is defined as the maximum number of persons per acre of gross area that a nonresidential development is expected to attract during periods of use. If the area subject to a referred local action encompasses more than one Aviation Safety Area (as shown in Figure 4) nonresidential density must be calculated independently for each Safety Area and standards established by this ALUP must not, except as provided in Policy G-4, be exceeded in any Safety Area. Acreage within each Aviation Safety Area which is allocated for streets or utility easements or which is dedicated in perpetuity to remain as reserve space may be included in the gross area for purposes of determining nonresidential density in that Safety Area.

If a referred local action includes both residential and nonresidential land uses within a given Aviation Safety Area, acreage allocated to residential uses may not be included in the gross area employed for purposes of determining nonresidential density in that Safety Area. In addition, acreage devoted to streets, utility easements, or reserve space may not be “double-counted” in determining nonresidential density and residential density (i.e., acreage devoted to streets, utility easements, or reserve space which is utilized in computing residential density may not also be used in computing nonresidential density.)

In Aviation Safety Areas S-1c and S-2, however, allowances are made to permit mixed use development at a level of combined residential and nonresidential density which is greater than permitted by the preceding paragraph. Permissible densities for Area S-1c and Area S-2 are shown in Figures 6 and 7.
### 4.4.3 Delineation of Aviation Safety Areas

#### 4.4.3.1 Aviation Safety Considerations

- Of the above components of aviation risk management, perhaps the most complex element is identifying areas of significant aviation hazard. The Airport Land Use Commission has determined that the considerations of primary importance in this determination are:

  a. The flight paths most heavily utilized by aircraft departing from or approaching to land at the San Luis Obispo County Regional Airport – Flight paths utilized by a relatively high proportion of arriving or departing aircraft are associated with an increased accident risk.

  b. The flight paths utilized by aircraft departing from or approaching to land at the San Luis Obispo County Regional Airport during adverse weather conditions – Maintaining control of an aircraft in conditions that make visualization of the horizon and the ground impossible is one of the most challenging tasks that a pilot can face. Flight paths which have been designated by the Federal Aviation Administration for use during reduced-visibility conditions, therefore, are of significant concern to the ALUC.

  c. The anticipated altitude of aircraft operations – A critical operational element in ensuring the safety of persons and property on the ground is the ability of the pilot of a disabled airplane to avoid impact with inhabited structures. The likelihood of the pilot accomplishing this is directly related to the time and gliding distance available, and both of these are dependent on the aircraft’s altitude at the time a malfunction occurs.

#### 4.4.3.1 Aviation Safety Areas

- Consideration of the factors discussed above have lead to the delineation of three fundamental areas with respect to aviation safety risks:

  a. **Runway Protection Zones** – Areas immediately adjacent to the ends of each active runway, within which the level of aviation safety risk is very high and in which, consequently, structures are prohibited and human activities are restricted to those which require only very low levels of occupancy. The size and configuration of the Runway Protection Zones are specified by Federal Aviation Regulations. The Runway Protection Zones are also referred to as the “clear zones” for each runway.

  b. **Aviation Safety Area S-1** – The area, as designated in Figure 4, within the vicinity of which aircraft operate frequently or in conditions of reduced visibility at altitudes ≤ 500 feet above ground level (AGL).

  c. **Aviation Safety Area S-2** – The area, as designated in Figure 4, within the vicinity of which aircraft operate frequently or in conditions of reduced visibility at altitudes between 501 and 1000 feet above ground level (AGL).

### 4.4.4 Delineation of Aviation Safety Sub-Areas

#### 4.4.4.1 Aviation Safety Considerations

- In order to further refine the definition of areas of relative aviation safety risk in Aviation Safety Area S-1, the Airport Land Use Commission has incorporated the following considerations:

  a. The risk of an aviation accident will be relatively greater in:

     i. areas above which aircraft approaching along various standardized flight paths are converging (increased risk of midair collision)

     ii. areas above which aircraft operators frequently execute abrupt and/or complex maneuvers at relatively low airspeed, such as descending turns from the downwind leg to the base leg of
the traffic pattern or from base leg to final, climbing turns from the upwind leg to the cross-
wind leg or from crosswind to downwind, or S-turns, 360° turns, or 270° turns for traffic
spacing (increased risk of stall/spin accidents)

iii. areas above which aircraft operators are required to perform unanticipated or unusual opera-
tions at relatively low airspeed, particularly in conditions of high work load and/or reduced
visibility. Such maneuvers include the transition from a normal instrument approach to a
missed approach procedure or to a circle-to-land maneuver (increased risk of pilot disorienta-
tion/loss of control accidents).

iv. areas within the engine-out gliding distance of aircraft on the initial climbout course or final
approach course to Runway 11-29, i.e., the extended runway centerline (increased risk of
accident due to mechanical malfunction or fuel exhaustion).

b. Conversely, the risk of an aviation-related accident will be reduced if flight operations are largely
confined to straight-and-level flight or relatively gentle turns in weather conditions with good visibility.

c. Because of the fact that all of the most frequently-used aircraft flight paths are related to takeoffs or
landings on Runway 11-29, potential safety hazards associated with operations to and from Runway 7-
25 have not been considered in defining Aviation Safety Areas S-1 and S-2. It is likely, however, that
future airport operations will see an increase in the use of Runway 7-25 as a means of increasing the
flow of traffic during peak periods. The State of California Department of Transportation’s Airport
Land Use Planning Handbook provides recommendations, based on runway length, for the size and
configuration of aviation safety zones related to Runway 7-25. Although these state-defined safety
zones are almost entirely located within Aviation Safety Area S-1, the ALUC acknowledges that, in
delineating sub-areas within Area S-1, appropriate recognition of potential safety hazards related to
operations on Runway 7-25 is necessary to provide adequate protection to persons and property in the
airport area.

4.4.4.2 Aviation Safety Sub-Areas - In consideration of the above, the ALUC has established and adopted the
Aviation Safety Sub-Areas shown in Figure 4. The Aviation Safety Sub-Areas shown in Figure 4 are:

a. Runway Protection Zones – Areas immediately adjacent to the ends of each active runway, within
which the level of aviation safety risk is very high and in which, consequently, structures are prohibited
and human activities are restricted to those which require only very low levels of occupancy. The size
and configuration of the Runway Protection Zones are specified by Federal Aviation Regulations. The
Runway Protection Zones are also referred to as the “clear zones” for each runway.

b. Aviation Safety Area S-1 – The area within the vicinity of which aircraft operate frequently or in
conditions of reduced visibility at altitudes ≤ 500 feet above ground level (AGL).

   i. Safety Area S-1a – Those portions of Safety Area S-1 which are located within 500 feet of
the extended runway centerline of Runway 11-29 and within 5000 feet of the runway end or
which are within 250 feet of the extended runway centerline of Runway 7-25 and within
3000 feet of the runway end.

   ii. Safety Area S-1b – Those portions of Safety Area S-1 which are not included in Safety Area
S-1a, but are within probable gliding distance for aircraft on expected approach or departure
courses; also includes State-defined sideline safety areas, inner turning zones and outer safety
zones for both Runway 11-29 and Runway 7-25 and portions of existing Airport Land Use
Zone 3. Aviation safety hazards to be particularly considered in this area include mechanical
failures, fuel exhaustion, deviation from glideslope or MDA during IFR operations (due to
pilot error or equipment malfunction), loss of control during short approach procedures, stall/
spin incidents during engine-out maneuvers in multi-engine aircraft, loss of control during
“go around” or missed approach procedures, and midair collisions.
iii. **Safety Area S-1c** – Those portions of Safety Area S-1 which are not included in Safety Areas S-1a or S-1b, but are adjacent to (within 0.5 nm) frequent or low-visibility aircraft operations at less than 500 feet above ground level. Aviation safety hazards to be considered in this area include mechanical failures, deviation from localizer or VOR during IFR operations (due to pilot error or equipment malfunction), stall/spin incidents during engine-out maneuvers in multi-engine aircraft, loss of control during “go around” or missed approach procedures, and loss of visual references by aircraft performing circle-to-land procedures.

c. **Aviation Safety Area S-2** – The area within the vicinity of which aircraft operate frequently or in conditions of reduced visibility at altitudes between 501 and 1000 feet above ground level (AGL). Aviation safety hazards to be considered in this area include mechanical failures, fuel exhaustion, loss of control during turns from downwind to base legs or from base to final legs of the traffic pattern, stall/spin incidents during engine-out maneuvers in twin engine aircraft, and midair collisions. Operational factors of concern include circle-to-land instrument approaches south of Runway 11-29, extensive “pattern work” by student pilots in fixed-wing aircraft (predominantly, but not exclusively to the south and west of the airport), and extensive practice flight by students in rotary-wing aircraft to the north of the airport. Nonetheless, because aircraft in Area S-2 are at greater altitude and are less densely concentrated than in other portions of the Airport Planning Area, the overall level of aviation safety risk is considered to be lower than that in Area S-1 or the Runway Protection Zones.

In the event of any conflict between these verbal descriptions and the depiction of Aviation Safety Areas in Figure 4, the depictions shown in Figure 4 shall take precedence.

### 4.4.5. Development Standards for Aviation Safety Compatibility

The development standards required to achieve consistency with the Safety Policies of the Airport Land Use Plan are summarized in Table 9. These development standards are based on Table 9C (page 9-47) of the Airport Land Use Planning Handbook (January, 2002) published by the California Division of Aeronautics. In general, the densities specified in Table 9 correspond with or are slightly lower than the most restrictive criteria recommended by the Division of Aeronautics, as they represent the standards which must be adhered to if none of the other safety policies recommended by Handbook are enacted. If additional safety planning features, such as the establishment of appropriate Reserve Space and clustering of development, are implemented, higher densities may be achieved through the mechanism of density adjustments.

**TABLE 9: DEVELOPMENT STANDARDS FOR AVIATION SAFETY COMPATIBILITY**

<table>
<thead>
<tr>
<th></th>
<th>Runway Protection Zone</th>
<th>Aviation Safety Area S-1</th>
<th>Aviation Safety Area S-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Nonresidential density (persons/acre)</td>
<td>5</td>
<td>30-50</td>
<td>150</td>
</tr>
<tr>
<td>Maximum Residential density (d.u./acre)</td>
<td>0</td>
<td>0.2</td>
<td>6</td>
</tr>
<tr>
<td>Special function land uses</td>
<td>prohibited</td>
<td>prohibited</td>
<td>prohibited</td>
</tr>
<tr>
<td>High intensity land uses</td>
<td>prohibited</td>
<td>prohibited</td>
<td>prohibited</td>
</tr>
</tbody>
</table>

1. It should be noted that the basic requirements of Table 9 may be modified by the incorporation of specific planning features to ensure airport compatibility (See Section 4.4.6).
4.4.6. Density Adjustments

4.4.6.1. Conceptual Basis for Density Adjustments

It is a goal of the Airport Land Use Commission to protect the long-term viability of the San Luis Obispo County Regional Airport, not only by prohibiting inappropriate development in the airport planning area, but by also encouraging land development which has been specifically planned to be compatible with current and future airport operations. One benefit of the above delineation of Aviation Safety Sub-Areas is that it identifies portions of the Airport Planning Area where the inclusion of appropriate safety features in proposed projects or local actions may allow development of a nature or intensity of land use which would otherwise be inconsistent with the Airport Land Use Plan. The special planning elements which may provide a basis for density adjustments include:

a. provision, by means of adopted local planning instruments, of designated areas of Reserve Space consistent with the requirements of this ALUP and approved by the Airport Land Use Commission
b. clustered development zones
c. preparation of specific area plans to afford more precise regulation of land use than would otherwise be the case

Although the adjustments to ALUP safety policy requirements which result from the incorporation of these planning elements are collectively referred to as “density adjustments”, the actual modifications to development standards may (depending on the area and on the specific planning elements) include:

a. an increase in allowable nonresidential density
b. an increase in allowable residential land use density
c. rendering of high intensity land uses as permissible in areas where they are otherwise inconsistent with the ALUP
d. rendering of special function land uses as permissible in areas where they are otherwise inconsistent with the ALUP
e. elimination of limitations on maximum building footprint.

4.4.6.2. Procedures for Density Adjustments – Airport-Compatible Open Space Plan

The primary means by which local agencies may obtain density adjustments is by preparation of one or more Airport-Compatible Open Space Plans (ACOS). The ACOS shall be incorporated as an element of a general plan, specific plan, zoning ordinance, or other local planning instrument which is subject to mandatory review by the ALUC. An ACOS may be prepared for any area within the Airport Planning Area, and the geographic extent of each ACOS will be determined and specified by the responsible local agency.

In order to be approved by the ALUC, an Airport-Compatible Open Space Plan must provide for the establishment, protection, and maintenance in perpetuity of a portion of the area as Reserve Space (as defined in Section 4.4.2.3. of this ALUP). Reserve Space areas should be located so as to mitigate existing aviation safety risks to the greatest degree possible. The portion of the area to be established, protected, and maintained as Reserve Space shall be equal to or greater than the percentage of gross land area indicated in Section 4.4.6.3. To this end, the ACOS shall:

a. indicate the size, location, and configuration of sites within a specified planning area that conform to the definition of Reserve Space provided in Section 4.4.2.3 and Table 8 of this ALUP or that will be
improved to conform to the standards of Section 4.4.2.3 and Table 8, and

b. include, with respect to each area of Reserve Space, a verbal description of the site demonstrating compliance with the standards provided in Section 4.4.2.3 and in Table 8, or indicating the improvements needed to conform to the standards and a date by which such improvements will be made; and

c. contain specific provisions for the upkeep and maintenance of each area of Reserve Space and for ensuring that the design standards provided in Section 4.4.2.3 and in Table 8 will be maintained in perpetuity.”

4.4.6.3. Procedures for Density Adjustments – Minimum Reserve Space Requirements

An ACOS shall not be approved by the ALUC unless it establishes a minimum amount of Reserve Space as follows:

a. In any Runway Protection Zone or portion thereof ................... 100% of gross land area
b. In any Aviation Safety Area S-1a or portion thereof ................... 50% of gross land area
c. In any Aviation Safety Area S-1b or portion thereof ................... 20% of gross land area
d. In any Aviation Safety Area S-1c or portion thereof ................... 15% of gross land area
e. In Aviation Safety Area S-2 or any portion thereof ................... 8% of gross land area

In the case of Aviation Safety Areas that are segmented, the above percentages of Reserve Space must be provided within each segment.

4.4.6.4. Procedures for Density Adjustments – Clustered Development Zones

Additional density adjustments (as specified in Table 10) may be attained through the designation of Clustered Development Zones (CDZ). A CDZ may include any part or all of the area encompassed by an ACOS, and the geographic extent of each CDZ will be determined and specified by the responsible local agency.

In order to be approved by the ALUC, an Airport-Compatible Open Space Plan which proposes to establish one or more CDZs must provide for the establishment, protection, and maintenance in perpetuity of the following percentages of each proposed CDZ as Reserve Space:

a. in Aviation Safety Area S-1c ........ 35% of the gross area of the CDZ
b. in Aviation Safety Area S-2 .......... 25% of the gross area of the CDZ.

4.4.6.5. Steps in Establishing an Approved ACOS

a. The local agency (City or County) formulates an ACOS which covers an area of the local agency’s choosing – In formulating such plan, the local agency is to be guided by the standards for Reserve Space set forth in the ALUP Section 4.4.2.3 and in Table 8. The ACOS shall be formulated as an element of a general plan, specific plan, zoning ordinance, building code or other local agency planning document which must undergo mandatory consistency determination by the ALUC and shall be referred to the ALUC for such mandatory determination of consistency
b. The local agency submits the proposed ACOS to the ALUC for approval

c. The ALUC evaluates the proposed ACOS. In its evaluation, the ALUC shall consider the degree to which the standards specified in ALUP Section 4.4.2.3 and in Table 8 are met and the degree to which the proposed ACOS mitigates existing or anticipated aviation safety hazards, together with any other criteria or information that it deems fit. If the ALUC determines that the proposed ACOS is adequate to offset the increased densities of development permitted in Table 10 of the ALUP, the plan shall be
Airport Safety Areas

- **Runway protection zones**
- **Safety Area S-1a** – Areas with frequent or low-visibility aircraft operations at less than 500 feet above ground level which are located within 250 feet of extended runway centerlines and within 3000 feet of a runway end.
- **Safety Area S-1b** – Areas within gliding distance of prescribed flight paths for aircraft operations at less than 500 feet above ground level, plus sideline safety areas, and inner turning zones and outer safety zones for each runway.
- **Safety Area S-1c** – Areas not included in Safety Areas S-1a or S-1b, but adjacent (within 0.5 nm) to aircraft operations at less than 500 feet above ground level.
- **Safety Area S-2** – Areas with aircraft operations at 501 to 1000 feet above ground level.
approved. In no circumstance, however, shall the ALUC approve an ACOS which fails to specify and designate a percentage of Reserve Space within any Airport Safety Area that is less than the percentage required by Section 4.4.6.3 or a percentage of Reserve Space within any Clustered Development Zone than is less than the percentage required by Section 4.4.6.4.

d. Once an ACOS is approved by the ALUC, all properties within the area included in the ACOS shall be eligible to receive the density adjustments specified in Table 10 and shall be exempt from the maximum building footprint restriction specified in that Table, and all properties within a Clustered Development Zone specified by the ACOS will be eligible to receive the density adjustments listed by Table 10.

4.4.7. Policies

Notwithstanding any other provision of this ALUP except for the specific provisions set forth in Section 6 (Specific Land Use Provisions for the Margarita Area), a proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, zoning ordinance amendment, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed project or local action:

a. **Policy S-1** – Would permit or lack sufficient provisions to prohibit structures and other obstacles within the Runway Protection Zones for any runway at the Airport, as depicted in Figure 4.

b. **Policy S-2** – Would permit or fail to adequately prohibit development of any residential or non-residential land uses at a density greater than specified in Table 10 or of any mixed land use at densities greater than illustrated in Figures 5 through 8.

c. **Policy S-3** – Would permit or fail to adequately prohibit, development with a greater building coverage than permitted by Table 10.

d. **Policy S-4** – Would permit or fail to adequately prohibit high intensity land uses or special land use functions (impaired egress uses or unusually hazardous uses), except that, when conditions specified by Table 10 for density adjustments have been determined to be met by the ALUC, high intensity land and/or special function uses may be allowed in Aviation Safety Area S-2.
# TABLE 8: PLANNING REQUIREMENTS AND DENSITY ADJUSTMENTS FOR LAND USES WITHIN THE AVIATION SAFETY AREAS FOR THE SAN LUIS OBISPO COUNTY REGIONAL AIRPORT

<table>
<thead>
<tr>
<th>Aviation Safety Area</th>
<th>Maximum Building Coverage (% of gross area)</th>
<th>Maximum Density of Use (Non-Residential) persons/acre&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Maximum Density of Residential Development d. u./acre&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Special Function Land Uses Allowed</th>
<th>High Intensity Land Uses Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway Protection Zone</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS</td>
<td>n/a</td>
<td>40</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Airport Safety Area 1a</td>
<td>5</td>
<td>30</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS</td>
<td>n/a</td>
<td>40</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>80</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Within CDZ specified by an approved ACOS</td>
<td>n/a</td>
<td>90</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Within CDZ specified by approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>120</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Airport Safety Area 1c</td>
<td>15</td>
<td>50</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS</td>
<td>n/a</td>
<td>60</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>80</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Within CDZ specified by an approved ACOS</td>
<td>n/a</td>
<td>90</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Within CDZ specified by approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>120</td>
<td>0.2</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Airport Safety Area 2</td>
<td>20</td>
<td>150</td>
<td>6</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>With approved ACOS</td>
<td>n/a</td>
<td>150</td>
<td>9</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>With approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>150</td>
<td>9</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Within CDZ specified by an approved ACOS</td>
<td>n/a</td>
<td>180</td>
<td>18</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Within CDZ specified by approved ACOS and specific plan&lt;sup&gt;3&lt;/sup&gt;</td>
<td>n/a</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
<td>yes&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

---

1. Refers to the maximum number of persons that a development may be expected to attract during the course of normal operations.
2. Refers to the maximum number of dwelling units (as defined by this ALUP) per acre allowable under the terms of a proposed project or local action.
3. Requires that the development be controlled by a specific plan or an amendment to a specific plan that has been developed in consultation with the ALUC and has been determined to be consistent with the ALUP after the date of adoption of this amendment.
4. Location and type of Special Function and/or High Intensity land uses shall be designated by Specific Plan and shall be subject to ALUC approval.

### Abbreviations:
- ACOS – Airport Compatible Open Space plan – See Sections 4.4.6.2 and 4.4.6.5 for additional information.
- CDZ – Clustered Development Zone – See Section 4.4.6.4 for additional information.
Figure 5: ALLOWABLE DENSITIES
Aviation Safety Area S-1a

Legend for Figure 5:
- Green: Allowable with No Density Adjustments
- Blue: Allowable with approved ACOS
- Pink: Prohibited

Figure 6: ALLOWABLE DENSITIES
Aviation Safety Area S-1b

Legend for Figure 6:
- Green: Allowable with No Density Adjustments
- Blue: Allowable with approved ACOS
- Pink: Prohibited

Figure 7: ALLOWABLE DENSITIES
Aviation Safety Area S-1c

Legend for Figure 7:
- Green: Allowable with no density adjustments
- Blue: Allowable with approved ACOS
- Blue: Allowable in Clustered Development Zones of an approved ACOS
- Blue: Allowable in Clustered Development Zones of an approved ACOS, with Specific Plan
- Pink: Prohibited
Figure 8: ALLOWABLE DENSITIES: Aviation Safety Area S-2

Legend for Figure 8:

- [Green] Allowable with no density adjustments
- [1] Allowable with approved ACOS
- [2] Allowable with approved ACOS and specific plan
- [4] Allowable in Clustered Development Zones of approved ACOS, with specific plan
4.5 SPECIFIC LAND USE POLICIES: AIRSPACE PROTECTION

4.5.1 Objective

The objective of the airspace protection policies of this ALUP is to minimize the risk of potential aircraft accidents in the vicinity of the Airport by avoiding the development of land uses and land use conditions which pose hazards to aircraft in flight.

4.5.2 Definitions

4.5.2.1 **Obstruction to Air Navigation** - For purposes of this ALUP, the term obstruction to air navigation is defined as any existing or future object which is or is expected to be greater than either of the following:

   a. A height that is 200 feet above ground level (AGL) or is above 409 feet MSL, whichever is greater.
   c. The surface of a takeoff and landing area or any imaginary surface established under Section 77.25 or 77.29 of the Federal Aviation Regulations (See Figure 9). However, no part of the take-off or landing area itself will be considered an obstruction.

4.5.2.2 **Hazard to Air Navigation** - For purposes of this ALUP, the term hazard to air navigation is defined as any existing or future object which entails or is expected to entail characteristics which would potentially interfere with the takeoff, landing, or maneuvering of aircraft at the Airport, including:

   a. creation of electrical interference with navigation signals or radio communication between the aircraft and airport;
   b. lighting which is difficult to distinguish from airport lighting;
   c. glare in the eyes of pilots using the airport;
   d. uses which attract birds and create bird strike hazards;
   e. uses which produce visually significant quantities of smoke; and
   f. uses which entail a risk of physical injury to operators or passengers of aircraft (e.g., exterior laser light demonstrations or shows).

4.5.3 Policies

Notwithstanding any other provision of this ALUP, any proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, zoning ordinance amendment, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed local action:

   a. **Policy A-1** – Lacks sufficient provisions to ensure that no structure, landscaping, apparatus, or other feature, whether temporary or permanent in nature shall constitute an obstruction to air navigation or a hazard to air navigation, as defined above.
b. **Policy A-2** – Would permit or lacks sufficient provisions to prohibit any new landfill or other disposal site at a site or of a configuration which is not consistent with all current state and federal statutes, FAA regulations, and FAA Advisory Circulars concerning the relationship of landfills and waste disposal sites to aeronautical operations and facilities.

### 4.6 SPECIFIC LAND USE POLICIES: OVERFLIGHT

#### 4.6.1 Objective

The objective of the overflight policies of this ALUP is to ensure that potential and prospective airport area land users are provided with sufficient information on the presence and activity of the Airport and associated noise and safety impacts in order for them to make an informed decision as to whether or not they wish to live and/or work in the Airport area.

#### 4.6.2 Policies

a. **Policy O-1** – Notwithstanding any other provision of this ALUP, any proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, zoning ordinance amendment, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed local action lacks sufficient provisions to ensure that both of the following provisions will be carried out:

   i. Avigation easements will be recorded for each property developed within the area included in the proposed local action prior to the issuance of any building permit or conditional use permit; and

   ii. All owners, potential purchasers, occupants (whether as owners or renters), and potential occupants (whether as owners or renters) will receive full and accurate disclosure concerning the noise, safety, or overflight impacts associated with airport operations prior to entering any contractual obligation to purchase, lease, rent, or otherwise occupy any property or properties within the airport area.
Airport Imaginary Surfaces

- Primary surfaces
- Transitional surfaces
- Horizontal surface
- Conical surface
- Approach surfaces
- Extended runway centerlines
- Obstructions by elevated terrain
- Man-made obstructions

Relationships of Transitional Surfaces

1. To Primary Surface, Runway 11-29
2. To Primary Surface, Runway 7-25
3. To Approach Surface, Runway 11
4. To Approach Surface, Runway 29
5. To Approach Surface, Runway 25
6. To Approach Surface, Runway 7
“Closed Traffic” Patterns
- Left Closed Traffic, Runway 29
- Right Closed Traffic, Runway 11

VFR Flight Paths
- Straight-In Arrival, Runway 29
- Left Downwind Departure, Runway 29
- Right 45 Arrival, Runway 29
- Left Downwind Arrival, Runway 29
- Straight-Out Departure, Runway 29
- Right Crosswind Departure, Runway 29 (standard)
- Right Downwind Arrival, Runway 11
- Right Downwind Departure, Runway 29
- Left Crosswind Departure, Runway 29 (standard)
- Left 45 Arrival, Runway 29
- Right Crosswind Departure, Runway 29 (noise abatement)
- Left Crosswind Departure, Runway 29 (noise abatement)

IFR Flight Paths
- ILS, Runway 11
- RNAV (GPS), Runway 29
- RNAV (GPS), Runway 11
- VOR or GPS-A
- Obstacle Departure, Runway 11

Dashed lines indicate IFR Missed Approach Procedures
SECTION 5
LAND USE COMPATIBILITY TABLE

5.1 INTENDED USE

The Land Use Compatibility Table is intended as a quick reference guide to allowable land uses and maximum permissible densities of development within the airport planning area. The Table does not introduce any new policies or requirements, but merely presents the requirements of the ALUP Noise and Safety Policies in a convenient, quick-reference format.

Explanation of the land use designations employed in the Land Use Compatibility Table is as set forth in the Glossary (Section 8) of this ALUP.

Regardless of the designation assigned to a particular land use by the Land Use Compatibility Table, the following ALUP sections may also apply, and the relevant requirements imposed by these policies must additionally be met to achieve consistency with the Airport Land Use Plan:

- **Section 4.3.4, paragraph d**, Noise Policy N-4: Prohibits development of noise sensitive uses adjacent to or in an acoustic environment substantially similar to an area of demonstrated noise incompatibility
- **Section 4.5.3, paragraph a**, Airspace Protection Policy A-1: Prohibits land uses which would constitute either an obstruction to air navigation or a hazard to air navigation
- **Section 4.5.3, paragraph b**, Airspace Protection Policy A-2: Regulates the establishment of landfills in the airport planning area
- **Section 4.6.2**, Overflight Policy O-1: Requires the recording of avigation easements and the preparation and distribution of real estate disclosure documents

In the event of any conflict or apparent conflict between the Land Use Compatibility Table and the ALUP Land Use Policies, the Land Use Policies shall take precedence.
## 5.2 LAND USE COMPATIBILITY TABLE: Key to Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Indicates that the land use is Prohibited in the specified noise exposure zone or aviation safety zone. No action can be taken by the Airport Land Use Commission that will render Prohibited uses permissible.</td>
</tr>
<tr>
<td>A</td>
<td>Indicates that the land use is Allowed in the specified noise exposure zone or aviation safety zone. Allowed land uses are, nonetheless, subject to the requirements noted in Section 5.1.</td>
</tr>
<tr>
<td>I</td>
<td>Indicates that the land use may be developed in the specified noise exposure zone only if it qualifies as an infill development under the criteria specified by ALUP Section 4.3.2.3 and has been designated as infill development by the ALUC.</td>
</tr>
<tr>
<td>M</td>
<td>Indicates that the land use may be developed in the specified noise exposure zone only if the specific noise mitigation measures required by ALUP Table 6 are incorporated into the referral. Refer to ALUP Section 4.3.3, ALUP Table 6, and ALUP Figure 2 for specific mitigation requirements.</td>
</tr>
<tr>
<td>NR5</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum non-residential density of use is limited to the values specified in Table 10 and in Figure 5.</td>
</tr>
<tr>
<td>NR6</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum non-residential density of use is limited to the values specified in Table 10 and in Figure 6.</td>
</tr>
<tr>
<td>NR7</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum non-residential density of use is limited to the values specified in Table 10 and in Figure 7.</td>
</tr>
<tr>
<td>NR8</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum non-residential density of use is limited to the values specified in Table 10 and in Figure 8.</td>
</tr>
<tr>
<td>R5</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum density of residential development of use is limited to the values specified in Table 10 and in Figure 5.</td>
</tr>
<tr>
<td>R6</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum density of residential development of use is limited to the values specified in Table 10 and in Figure 6.</td>
</tr>
<tr>
<td>R7</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum density of residential development of use is limited to the values specified in Table 10 and in Figure 7.</td>
</tr>
<tr>
<td>R8</td>
<td>Indicates that the land use is Allowed in the indicated Aviation Safety Area, provided that the maximum density of residential development of use is limited to the values specified in Table 10 and in Figure 8.</td>
</tr>
<tr>
<td>HI</td>
<td>Indicates that the listed land use is designated as a High Intensity Land Use by the ALUP, and is prohibited in the specified aviation safety area unless the proposed development is controlled by both an approved Airport Compatible Open Space Plan (ACOS) and a Specific Plan which has been determined to be consistent with the ALUP.</td>
</tr>
<tr>
<td>SF</td>
<td>Indicates that the listed land use is designated as a Special Function Land Use by the ALUP, and is prohibited in the specified aviation safety area unless the proposed development is controlled by both an approved Airport Compatible Open Space Plan (ACOS) and a Specific Plan which has been determined to be consistent with the ALUP.</td>
</tr>
</tbody>
</table>
### 5.3 LAND USE COMPATIBILITY TABLE

<table>
<thead>
<tr>
<th>Agricultural Uses</th>
<th>Airport Noise Exposure (dB CNEL)</th>
<th>Aviation Safety Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>More than 60</td>
<td>55 to 60</td>
</tr>
<tr>
<td>Agricultural processing</td>
<td>A A A</td>
<td>P</td>
</tr>
<tr>
<td>Animal raising and keeping</td>
<td>A A A</td>
<td>A A A A A A A</td>
</tr>
<tr>
<td>Crop production (except staked crops) and grazing</td>
<td>A A A</td>
<td>A A A A A A</td>
</tr>
<tr>
<td>Farm equipment and supplies – sales</td>
<td>A A A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Farm support quarters</td>
<td>P I A</td>
<td>P R5 R6 R7 R8</td>
</tr>
<tr>
<td>Greenhouses, nursery specialties</td>
<td>A A A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Specialized animal facilities</td>
<td>A A A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Vineyards and other staked crops</td>
<td>A A A</td>
<td>P P A A A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications Uses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Antennas, repeater stations, etc. – unmanned</td>
<td>A A A</td>
<td>P A A A A A A</td>
</tr>
<tr>
<td>Radio, television, recording, or rehearsal studios</td>
<td>M M A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural, Educational, and Recreational Uses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amusement arcades</td>
<td>A A A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Amusement parks, fairgrounds</td>
<td>A A A</td>
<td>P P P P P P</td>
</tr>
<tr>
<td>Bars, taverns with outdoor eating/drinking areas</td>
<td>P I A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Bars, taverns without outdoor serving areas</td>
<td>M M A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Campgrounds, outdoor sleeping facilities</td>
<td>P I A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Cemeteries, mausoleums, columbariums</td>
<td>A A A</td>
<td>P A A A A A A</td>
</tr>
<tr>
<td>Churches</td>
<td>M M A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Day-care facilities for children, other</td>
<td>M M A</td>
<td>P P P P P SF</td>
</tr>
<tr>
<td>Day-care facilities for adults</td>
<td>M M A</td>
<td>P P P P P SF</td>
</tr>
<tr>
<td>Convention/exhibit centers, major auditoriums</td>
<td>M M A</td>
<td>P P P P P HI</td>
</tr>
<tr>
<td>Drive-in or other outdoor theatres</td>
<td>P I A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
<tr>
<td>Libraries and museums</td>
<td>M M A</td>
<td>P NR5 NR6 NR7 NR8</td>
</tr>
</tbody>
</table>
5.3 LAND USE COMPATIBILITY TABLE (continued)

<table>
<thead>
<tr>
<th>Cultural, Educational, and Recreational Uses (continued)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership organizations, meeting rooms, and small auditoriums</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
<td>NR6</td>
</tr>
<tr>
<td>Outdoor sports and recreation</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural recreation and picnicking (no camping)</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schools –Specialized training and education</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
<td>NR6</td>
</tr>
<tr>
<td>Schools –Colleges, universities, adult schools</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
<td>NR6</td>
</tr>
<tr>
<td>Schools –Pre-school through high school</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Sports stadiums, racetracks, fairgrounds</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Swimming pools, public</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
<td>NR6</td>
</tr>
<tr>
<td>Temporary events</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturing and Processing Uses</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous, corrosive, or flammable chemicals</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Electrical generating plants</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Petroleum refining or bulk storage</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Other manufacturing and processing</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
<td>NR6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residential Uses</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Caretakers or employees residences</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
<td>R6</td>
</tr>
<tr>
<td>Dormitories</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
<td>R6</td>
</tr>
<tr>
<td>Farm support quarters</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
<td>R6</td>
</tr>
<tr>
<td>Fraternity or sorority houses</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
<td>R6</td>
</tr>
<tr>
<td>High-occupancy residential use</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
<td>R6</td>
</tr>
</tbody>
</table>
### 5.3 LAND USE COMPATIBILITY TABLE (continued)

<table>
<thead>
<tr>
<th>Residential Uses (continued)</th>
<th>More than 60</th>
<th>55 to 60</th>
<th>Less than 55</th>
<th>Aviation Safety Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeless shelters</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
</tr>
<tr>
<td>Home occupations</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R5</td>
</tr>
<tr>
<td>Mobilehomes, mobile home parks</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R6</td>
</tr>
<tr>
<td>Multifamily dwellings</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R7</td>
</tr>
<tr>
<td>Nursing, residential care, personal care facilities</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R8</td>
</tr>
<tr>
<td>Organization houses</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
</tr>
<tr>
<td>Secondary dwelling units</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R5</td>
</tr>
<tr>
<td>Single family residential</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R6</td>
</tr>
<tr>
<td>Temporary dwellings</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>R7</td>
</tr>
</tbody>
</table>

### Resource Extraction Uses

| Forestry, mining, fishing and game preserves     | A            | A        | A            | P                    |
| Petroleum extraction                             | A            | A        | A            | P                    |

### Retail Trade Uses

| Restaurants, without outdoor seating areas       | M            | M        | A            | P                    |
| Restaurants, with exterior seating areas         | P            | I        | A            | P                    |
| Retail sales – fuels, lubricants, propane, etc.  | A            | A        | A            | P                    |
| Retail sales, other than listed above            | A            | A        | A            | P                    |

### Service Uses

| Correctional institutions                        | P            | I        | A            | P                    |
| Health services, ambulatory                      | M            | M        | A            | P                    |
5.3 LAND USE COMPATIBILITY TABLE (continued)

<table>
<thead>
<tr>
<th>Airport Noise Exposure (dB CNEL)</th>
<th>Aviation Safety Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 60</td>
<td>RPZ</td>
</tr>
<tr>
<td>55 to 60</td>
<td>S-1a</td>
</tr>
<tr>
<td>Less than 55</td>
<td>S-1b</td>
</tr>
<tr>
<td></td>
<td>S-1c</td>
</tr>
<tr>
<td></td>
<td>S-2</td>
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</table>

### Service Uses (continued)

<table>
<thead>
<tr>
<th>Service Type</th>
<th>RPZ</th>
<th>S-1a</th>
<th>S-1b</th>
<th>S-1c</th>
<th>S-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals, acute or convalescent</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Offices, office buildings</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Other personal, consumer, or business services</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
</tbody>
</table>

### Transient Lodgings

<table>
<thead>
<tr>
<th>Type</th>
<th>RPZ</th>
<th>S-1a</th>
<th>S-1b</th>
<th>S-1c</th>
<th>S-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed and breakfast facilities</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Employee sleeping rooms</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Homestays</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
</tr>
<tr>
<td>Hotels and motels</td>
<td>M</td>
<td>M</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Recreational vehicle parks</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Temporary employee trailer parks</td>
<td>P</td>
<td>I</td>
<td>A</td>
<td>P</td>
<td>R5</td>
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</tbody>
</table>

### Transportation Uses

<table>
<thead>
<tr>
<th>Type</th>
<th>RPZ</th>
<th>S-1a</th>
<th>S-1b</th>
<th>S-1c</th>
<th>S-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airfields, landing strips, heliports, helipads</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>High voltage transmission lines</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Pipelines, above ground, flammable liquids</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Pipelines, above ground, non-flammable liquids</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Truck stops</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Vehicle, freight, and transit terminals</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
</tbody>
</table>

### Wholesale Uses

<table>
<thead>
<tr>
<th>Type</th>
<th>RPZ</th>
<th>S-1a</th>
<th>S-1b</th>
<th>S-1c</th>
<th>S-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warehousing</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
<tr>
<td>Wholesaling and distribution</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>NR5</td>
</tr>
</tbody>
</table>
SECTION 6
SPECIFIC LAND USE PROVISIONS FOR THE MARGARITA AREA

NOTE: This Section of the Airport Land Use Plan refers to “Airport Planning Zone 3”, “Airport Planning Zone 4”, and “Airport Planning Zone 5”. These Zones had wide applicability in previous versions of the ALUP, but have been superseded in this revision. Currently Airport Land Use Zones 3, 4, and 6 are only applicable within the Margarita Specific Plan Area. To minimize the possibility of confusion, these zones are renamed “Margarita-Airport Zone 3” (MAZ3), “Margarita-Airport Zone 4” (MAZ4), and “Margarita-Airport Zone 6” (MAZ6). The configuration of these Zones is, as applied to the Margarita Specific Plan Area, is unchanged, and is shown in Figure 11.

Sections 6.3.1.b and 6.3.2.b previously referred to conditions for rendering “conditionally Approvable” land uses compatible with the Airport Land Use Plan. This phraseology is not relevant under the current ALUP Revision. Sections 6.3.1.b and 6.3.2.b are, therefore, deleted. Development which adheres to the Margarita Area Planning Standards (Section 6.2) and which is located in accordance with Figure 11: Allowable Land Uses: Margarita Area shall be considered to be consistent with the ALUP.

The term “noise-sensitive uses”, for purposes of Section 6 only shall be construed only those uses which were designated as “noise-sensitive” by the June 19, 2002 revision of the ALUP. These include: residential development (except temporary buildings), schools, health care services (including hospitals), nursing and personal care facilities, churches, public assembly and entertainment, libraries, and museums.

The dimensions of the “Inner Turning Zone” and Outer Safety Zone” shall, for purposes of this section, be as defined in the 1993 Airport Land Use Planning Handbook of the Division of Aeronautics of the California Department of Transportation, shall be applied to the existing runway length of 5300 feet, rather than the planned 6000 foot length, and are as illustrated in Figure 11.

The ALUC adopts the following Specific Land Use Provisions for the Margarita Area.

6.1 APPLICABILITY OF SPECIFIC LAND USE PROVISIONS FOR THE MARGARITA AREA

a. Section 6 is applicable only to the Margarita Area as shown in Figure 10. Any referred action for land within the Margarita Area shall be subject to this section. Any referred action for land outside the Margarita Area shall be subject to all of the policies of Section 4 and Section 6.

b. Unless specifically modified by the provisions of Section 6.3, all of the Land Use Policies set forth with respect to Noise, Safety, Airspace Protection, and Overflight in Section 4 of this ALUP Amendment entitled “Land Use Policies” shall fully apply to the Margarita Area.

c. Land uses that are in conformance with the Section 6.3, but are in noncompliance with any Land Use Policy not specifically superceded or invalidated by this Section are prohibited by the ALUP. A general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, zoning ordinance amendment, or building ordinance that permits or fails to adequately prohibit such land uses shall be determined to be inconsistent with the ALUP.
Fig. 11: ALLOWABLE LAND USES: Margarita Area

Specific Plan Area Boundaries
Airport Land Use Planning Areas
Airport Noise Contours
CALTRANS Safety Zones

Low Density Residential
Medium Density Residential
Medium Density Residential (Single-Family Dwellings Only)
Medium-High Density Residential
High-Density Mixed Use
Athletic Fields
Other Open Space
Special Use
Business Park
Neighborhood Commercial

Emergency Landing Sites
1. Aircraft on straight-out departure, Rwy. 29
2. Aircraft on right crosswind or right downwind departure, Rwy. 29

Number of dwelling units within 55-dB CNEL Airport Noise Contour not to exceed 580

Land use density in Business Park not to exceed 40 persons per acre

Prado Road
Higuera Street
Margarita Avenue
MAZ3
MAZ4
MAZ6
Industrial Way
Capitolio Way
Broad Street
Prado Road
MAZ6

1 2
2 0 400 800 ft. 1/4 mi.
d. Section 6 is intended for use as one component of the comprehensive strategy for land use planning created by the overall ALUP. The provisions of this Section are valid only within the context of the policies and figures that are provided in other Sections. If any portion of the ALUP is invalidated or modified, other than by action of the ALUC itself, and if such invalidation or modification substantially impacts the authority of the ALUP to regulate or influence land use planning decisions within the Airport Planning Area, this Section shall become null and void, and its contents shall not constitute a precedent nor prejudice any subsequent deliberations or decisions by the ALUC. If, following the adoption of an airport land use plan or an amendment to an airport land use plan, any local agency having jurisdiction within the Airport Planning Area fails to amend its general plan, specific area plans, zoning ordinances, and building codes to achieve consistency with the ALUP, all of the provisions of Section 6 shall be suspended and shall not constitute grounds for a determination of consistency until such time as the local planning instruments have been amended and the ALUC has determined that such local planning instruments are consistent with the ALUP.

6.2 MARGARITA AREA PLANNING STANDARDS FOR AIRPORT COMPATIBILITY

6.2.1 Noise Standards

a. The total number of dwelling units within the projected 55 dB CNEL contour shall not exceed 580 dwelling units.

b. All residential or other noise-sensitive land uses within the projected 55 dB CNEL contour shall be located within the areas specified in Figure 11.

c. Residential or other noise-sensitive land uses within the projected 55 dB CNEL contour shall be situated as far as is feasible from the projected 60 dB CNEL contour and as far as is feasible from the departure (northwesterly) end and from the extended centerline of Runway 29 at the Airport.

d. Higher density residential land uses in MAZ6 will be clustered and will be situated closer to the projected 55dB CNEL contour than to the projected 60 dB CNEL contour.

e. All residential or other noise-sensitive land uses within the projected 55 dB CNEL contour shall incorporate design and construction features that will reduce aviation-related interior continuous noise levels to 45 dB CNEL or less in all interior spaces intended for human habitation.

f. All residential or other noise-sensitive land uses within the projected 55 dB CNEL contour shall incorporate design and construction features that will reduce aviation-related interior single-event noise levels to 60 dB or less in all interior spaces intended for human habitation.

g. In common use areas, facilities will be strongly encouraged to provide residents with an opportunity to participate in outdoor-oriented activities (e.g., child play, barbecues, swimming, tennis) in environments where, by partial or full enclosure, baffling, or other design and construction features, aircraft noise is attenuated.

h. Design standards set forth in general and specific plans or other planning instruments shall strongly encourage individual residential and other noise-sensitive land uses to incorporate design and construction features that will provide residents with an opportunity to participate in outdoor-oriented activities in environments that afford a significant degree of aircraft noise attenuation. Examples of
such environments include:
   i. Appropriately landscaped interior noise-sheltered garden courts or atria (in multi-family
      residential buildings)
   ii. Outdoor covered and noise-insulated patio areas or “garden rooms”
   iii. Fully or partially enclosed swimming pools and tennis courts

6.2.2 Safety Standards

a. Within MAZ3, all residential land uses shall be prohibited.

b. Within MAZ4:
   i. The total number of residences allowed shall not exceed a maximum of 260 dwelling units, and
   ii. Multi-family residential land uses shall be prohibited. Residential units may not be attached
      or share a common wall, although single-family residences with a zero lot-line setback on one
      side will be permissible, and
   iii. A minimum of 22% of the land area will be preserved as open space. For purposes of this
      Section, open space shall be defined as land which is substantially free of structures, vehicles,
      and trees, which is relatively smooth and level, and which is devoted to use characterized by
      low occupancy levels. Land uses which may be consistent with this definition of open space
      include undeveloped land – “green belt” reserve; parks; agriculture – grazing, vineyards or
      field crops (but not forestry or orchards); certain recreational uses (e.g., golf courses, shooting
      ranges); cemeteries; and streets, roads, highways, parking lots, and rights-of-way, provided
      that such hazards as utility poles and wires, parked vehicles, and trees are appropriately
      prohibited.

c. Within the Outer Safety Zone (as defined by the State of California’s Airport Land Use Planning
   Handbook, December, 1993), all buildings shall be prohibited.

d. Within the Inner Turning Zone (as defined by the State of California’s Airport Land Use Planning
   Handbook, December, 1993):
   i. the total number of residences allowed shall not exceed a maximum of 40 dwelling units, and
   ii. residential land uses shall be situated as far as feasible from the departure end and from the
      extended centerline of runway 29 at the Airport, and
   iii. A minimum of 40% of the land area will be preserved as open space.

e. Within the portion of MAZ4 which also lies within the Inner Turning Zone (as defined by the State of
   California’s Airport Land Use Planning Handbook, December, 1993):
   i. Residential land uses shall be prohibited, and
   ii. Non-residential structures shall be minimized.

f. Unobstructable emergency landing sites for aircraft shall be provided as follows:
   i. An unobstructable emergency aircraft landing site which is at least 150 feet in width and
      1,000 feet in length and which is located and oriented for use by aircraft executing a right
      crosswind or right downwind departure from runway 29 shall be provided, and
   ii. An additional open space shall be preserved at the southwest corner of the Margarita Area (as
      shown in Figure 11) for incorporation into a future unobstructable emergency aircraft landing
      site for use by aircraft executing a straight out departure from Runway 29 or a straight in
      arrival to Runway 11.
g. Schools and other public-assembly buildings shall be prohibited in the Margarita Area.

h. All non-residential land uses within the Margarita Area shall be situated within the areas specified in Figure 11.

i. Nonresidential density of use within the area designated as Business Park by Figure 11 shall not exceed 40 persons per acre.

6.3 SPECIFIC LAND USE POLICIES-MARGARITA AREA

6.3.1 Noise Policies

a. Policy MN-1 – Within the Margarita Area:

   i. Policy N-2 shall not apply, and

   ii. Notwithstanding any other provision of this ALUP, a proposed general plan, general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, zoning ordinance amendment, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed local action would permit or fail to sufficiently prohibit residential or other noise-sensitive development within the projected 55 dB CNEL contour, unless:

       • the local action would permit only those residential or other noise-sensitive developments which meet the criteria delineated in this ALUP for designation as infill

       • the local action would permit only those residential or other noise-sensitive developments which adhere to the requirements of the Margarita Area Planning Standards for Airport Compatibility, as set forth in this ALUP.

6.3.2 Safety Polices

a. Policy MS-1 – Within the Margarita Area:

   i. Policy S-2 and S-3 shall not apply, and

   ii. Notwithstanding any other provision of this ALUP, any local action, including a proposed general plan, general plan amendment, specific plan, specific plan amendment, zoning ordinance, building regulation modification, or individual development proposal will be determined to be inconsistent with the ALUP if the proposed local action would permit or fail to adequately prohibit any development or land use which fails to conform adhere to the standards set forth in Section 6.2.2.
SECTION 7
PROCEDURAL POLICIES

7.1 AIRPORT LAND USE COMMISSION: RESERVATION OF RIGHT OF REVIEW

In accordance with Public Utilities Code Section 21676(b), prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance, zoning ordinance amendments or building regulation with the planning boundaries established by this ALUC, the referring agency shall first refer the proposed local action to the ALUC. The ALUC shall make a finding, on these and other projects referred, of whether or not the amendment, ordinance, regulation, or project is consistent with the ALUP. All determinations of consistency or inconsistency shall be made by the ALUC acting in its official capacity, and no such decisions may be delegated to the staff of the ALUC nor to any referring agency.

A finding by the ALUC that any project, general plan or general plan amendment, specific plan or specific plan amendment, zoning ordinance, or building regulation is consistent with the ALUP does not constitute a finding that a subsequent version of the project or action which has been modified from the version submitted to the ALUC is consistent nor does it constitute a finding that any subsequent project or action on the part of the referring agency is consistent.

7.2 INFORMATION REQUIRED FOR ALUC REVIEW

Failure to provide the ALUC with required information for any proposed project or local action shall constitute sufficient grounds for a determination of inconsistency.

To ensure that appropriate information is submitted, the ALUC may, by a majority vote, require that each future referral for determination of consistency be accompanied by a completed ALUC Referral Form, together with all required attachments. The ALUC Referral Form shall be devised and provided by the ALUC, and shall be revised as necessary. The ALUC Referral Form is not an element of the ALUP, and revision of the Referral Form shall not constitute nor require an amendment to the ALUP.

7.3 TIMING OF ALUC REFERRALS

In order to avoid unnecessary delays in the overall processing of a plan or project, referral for review by the ALUC should, in general be made as soon as all of the requirements for review are met. This practice will allow the ALUC’s review to be duly considered by the local jurisdiction prior to formalizing its action.

a. For new general plans, specific plans, or zoning ordinances and for major modifications to existing general plans, specific plans, or zoning ordinances, it is strongly suggested that a preliminary review by the ALUC be completed prior to it being released for public comment and a formal review be completed prior to initial reading of the proposed local action by the referring agency.

b. For minor modifications to existing general plans, specific plans, zoning ordinances, or building regulations and for voluntary reviews of individual projects, depending on the normal scheduling of
meetings, it may be appropriate that review by the ALUC be carried out concurrently with review by the local planning commission and other advisory bodies.

In all instances, review by the ALUC must be accomplished before final action by the city council or board of supervisors.

### 7.4 TIMING OF ALUC REVIEW

The ALUC shall make a determination of consistency or inconsistency within sixty (60) days after the date on which all required information was received from the referring agency.

If the ALUC has not acted upon a referral within sixty (60) days after all information necessary for review of the proposed local action is received, and the proposed local action involves a general or specific plan, zoning ordinance, or building regulation, the proposed local action shall be deemed consistent with the ALUP.

If, at the time of initial receipt of a referral from a referring agency, the information required for ALUC review is incomplete, the ALUC or its staff shall notify the referring agency, indicating the specific items which are incomplete. If the required information is not received, the ALUC may make a finding that the referred local action is inconsistent with the ALUP based on failure of the referring agency to submit sufficient information for review.

### 7.5 REFERRING AGENCY OPTIONS

If the ALUC determines that a proposed local action is inconsistent with the ALUP, the referring agency shall be notified and the governing body of the referring agency may, after a public hearing, overrule the ALUC if both of the following conditions are met:

a. The governing body of the local agency shall, at least 45 days prior to the decision to overrule the commission, provide to the ALUC and the California Department of Transportation a copy of the proposed decision and findings, as required by State law, and shall have include any comments from the ALUC and/or the Division of Aeronautics in the public record of any final decision to overrule the Commission.

b. The governing body of the referring agency votes to overrule the ALUC’s determination by at least a two-thirds vote of its members; and

c. The governing body of the referring agency makes specific findings that the proposed local action is consistent with the purposes of Article 3.5 of the California Public Utilities Code, as stated in Section 21670, as follows:

   i. to provide for the orderly development of the Airport as a public use airport and the area surrounding the Airport so as to promote the overall goals and objectives of the California airport noise standards pursuant to Public Utilities Code Section 21669 and to prevent the creation of new noise and safety problems; and

   ii. to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around the Airport to the extent that these areas are not already devoted to incompatible uses.

Such findings may not be adopted as a matter of opinion, but must be supported by substantial evidence.
Should the ALUC determine that a general or specific plan has not been made consistent with the ALUP and when a referring agency has failed to override the ALUC by the above procedure, the ALUC may require that the referring agency submit all subsequent actions, regulations, and permits to the ALUC for review.

7.6 AMENDMENT OF THE ALUP

The ALUP shall be reviewed by the ALUC as often as is necessary to accomplish its purposes, and may be amended by the ALUC no more often than once in any calendar year.5

Within 60 days after the adoption of any amendment to the ALUP, the ALUC shall review the general and specific plans of all affected local agencies to determine whether they are consistent with the ALUP, as amended. If the plan or plans are found to be inconsistent, the referring agency shall be notified and that referring agency shall hold a hearing to reconsider its plan or plans.
SECTION 8

GLOSSARY

Agricultural processing: A variety of operations performed on crops after harvest to prepare them for market on-site or further processing and packaging at a distance from the agricultural area. Includes, but is not limited to alfalfa cubing, hay baling and cubing, corn shelling, drying of corn, rice, hay, fruits or vegetables, pre-cooling and packaging of fresh or farm-dried fruits and vegetables, grain cleaning and custom grinding, custom grist mills, custom milling of flour, feed, or grain, grading and packaging of fruits and vegetables, tree nut hulling and shelling, cotton ginning, wineries, alcohol fuel production, and receiving and processing of green material which is not produced on-site (commercial composting).

Air carrier: An operator that:

1. performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed; or
2. transport mail by air pursuant to a current contract with the United States Postal Service.

Air carriers are certified in accordance with Federal Aviation Regulations.

Air charter: An air carrier certified in accordance with Federal Aviation Regulations and authorized to provide, on demand, public transportation of persons and property by aircraft. Air charters generally operate small aircraft “for hire” for specific trips.

Air tax: See air charter.

Air traffic control: A term used to denote a number of different types of facilities which are operated by or under the auspices of the Federal Aviation Administration and which provide informational, navigational, and collision avoidance services to aircraft in flight. Air traffic control towers and air route traffic control centers are elements of the air traffic control system.

Air traffic control tower (ATCT) (“tower”): A facility located within the physical boundaries of certain airports and consisting of a tower which provides visual and/or radar tracking, ground-to-air radio communications, traffic management, and limited informational, navigational, and separation services to aircraft operating in the immediate vicinity of an airport.

Air route traffic control center (ARTCC): A facility which provides radar tracking and informational, navigational, and separation services to aircraft operating beyond the immediate vicinity of an airport.

Aircraft, parts, instruments – repair and service (as a land use): Any establishment which, as its primary activity, performs repair, maintenance, inspection, fabrication, or other services which are necessary or useful in maintaining the airworthiness, appearance, value, comfort, or functionality of aircraft or any component thereof.

Airport operation: A take off or a landing.

Amusement arcade: An establishment offering, as a primary business activity, participation in electronic or mechanical games.

Amusement park: A permanent site where entertainment, food, rides, games, and the like are offered for viewing or sale.

Angle of descent: The angle, with respect to a horizontal plane, of the flight path of an aircraft descending from a higher altitude to a lower altitude (usually expressed in degrees or in feet per nautical mile). Also referred to as descent slope.

Animal raising: The keeping, feeding, or raising of animals as a commercial agricultural venture, avocation, hobby, or school project, either as a principal land use or subordinate to a residential use. Includes the keeping of common farm animals, small animal specialties (such as rabbit farms and other fur-bearing animals), bee farms, aviaries, worm farms, household pets, etc.

Approach angle: The angle, with respect to a horizontal plane, of the flight path of an aircraft descending to land at an airport (usually expressed in degrees or in feet per nautical mile). Also referred to as approach slope.

Approach lighting system (ALS): An airport lighting system which, by means of a standardized array of lights on the ground provides visual cues which enable pilots or aircraft approaching the runway in conditions of darkness or poor visibility, to align the flight path of the aircraft with the extended centerline of the runway.

Bank: Any land use whereby some or all of the financial services customarily provided by banking institutions are offered to the general public. Examples include traditional banks, savings and loan associations, and credit unions. The provision of banking services at a site which is predominantly devoted to a compatible use (e.g., in-store supermarket bank branches, automated teller machines), however, shall not be considered as banks in the context of this ALUP.

Bar, tavern: Any establishment engaged, as a primary business, in the sale of alcoholic beverages for on-site consumption.

Entertainment, if provided, must be incidental, and no dance floor may be provided. Establishments which feature a dance floor and/or entertainment as a principal use are classified as “nightclubs or discotheques”.

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**Base leg:** A segment of the standard airport traffic pattern which extends at right angles from the extended runway centerline at some distance from the approach end of the runway. The base leg extends from the downwind leg of the traffic pattern to the final approach course (extended runway centerline) and is flown in the direction toward the runway centerline. The altitude of aircraft flying the base leg is usually between 1000 and 400 feet above ground level.

**Bed & Breakfast:** A structure or facility which is intended or suitable for short-term occupancy by persons as a temporary dwelling and which, by its nature, appearance, or presentation would appear to offer occupants a peaceful, pastoral, or rural experience. Characteristics which distinguish a bed and breakfast inn is distinguished from a hotel or motel typically include: openable windows, an absence of central climate control systems, and/or extensive outdoor landscaping or lawns, walking paths, or outdoor dining/conversation areas.

**Broadcast studio:** Any commercial or public communications use, including telegraph, telephone, radio and television broadcasting and receiving stations and studios and motion picture studios, with facilities entirely within buildings.

**Campground:** Any land use which permits individuals to sleep in the outdoors, in a tent, or in a recreational vehicle.

**Caretaker residence:** A permanent residence that is secondary or accessory to the primary use of the property. The purpose of a caretaker residence must be to provide housing to an individual who is employed on the site of the nonresidential use and whose presence is required for security purposes or to provide 24-hour care or monitoring of people, plants, animals, equipment, stored goods, or other conditions on the site.

**Cemetery, mausoleum, or columbarium:** Any establishment engaged in subdividing property and offering burial plots or air space for sale. Includes animal cemeteries, cemetery real estate operations, cemetery associations, and funeral parlors accessory to a cemetery, mausoleum, or columbarium. Funeral parlors and related facilities as a principal use are considered to be “personal services”.

**Church:** Any land use devoted exclusively or primarily to religious worship. Classrooms and/or meeting rooms may be included as part of a church if sufficient conditions are placed upon the development to ensure that such facilities will be utilized only for religious instruction or church-related meetings and that their use for such purposes will remain subsidiary to the primary activity of religious worship. In the absence of such conditions, classroom facilities which would be suitable for regular religious or nonreligious education of students will be considered a school.

**Circle-to-Land Procedure:** A series of standardized aerial procedures which enable aircraft which have completed an instrument approach intended to culminate in a landing on a specified runway to maneuver for landing on a different runway than specified in the basic instrument approach while maintaining visual contact with the airport.

**Climb gradient:** The angle, with respect to a horizontal plane, of the flight path of an aircraft ascending from a lower altitude to a higher altitude (usually expressed in feet per nautical mile).

**Closed traffic:** An airborne maneuver by which an aircraft takes off from and lands at an airport without leaving the immediate airport vicinity (usually performed as a flight training or practice maneuver) or the airport traffic pattern flown by such an aircraft.

**Community noise equivalent level (CNEL):** A measure, in decibels, of the cumulative noise exposure at a given site. The CNEL mathematically increases the significance of noise events occurring during evening and nighttime hours, in response to the widely-held assumptions that such events are more intrusive than similar events occurring during daytime hours.

**Compatible:** A designation employed within the Land Use Matrix to denote that a proposed land use is not prohibited or restricted by the Land Use Matrix within the specified zone.

**Consistent:** A determination made by the ALUC when a referral meets the conditions outlined in the ALUP.

**Correctional Institution:** A facility for confinement of offenders sentenced by a court.

**Crop production:** Growing of grains, field crops, vegetables, melons, fruits, tree nuts, flower fields, seed production, ornamental crops, tree and sod farms, together with associated crop preparation services and harvesting activities, including but not limited to mechanical soil preparation, irrigation system construction, spraying, crop processing, and sales in the field not involving a permanent structure.

**Crosswind departure:** A VFR departure procedure in which an aircraft exits the airport area by extension of the crosswind leg of the traffic pattern.

**Crosswind leg:** A segment of the standard airport traffic pattern which extends at right angles from the extended runway centerline at some distance from the departure end of the runway. The base leg extends from the upwind leg of the traffic pattern to the downwind leg and is flown in the direction away from runway centerline.

**Course Deviation Indicator (CDI):** An instrument commonly installed in aircraft and utilized for aerial navigation, which depicts the location, in the horizontal plane, of the aircraft relative the intended direction of flight.
Day-care facility for children: A facility, irrespective of size or number of clients, which provides nonmedical care and supervision to children under 18 years of age for periods of less than 24 hours per day.

Day-care facility, adult: A facility, irrespective of size or number of clients, which provides nonmedical care and supervision for periods of less than 24 hours per day to persons who are 18 years of age or older but who are in need of personal services, supervision, or assistance for sustaining the activities of daily living.

Decibel (dB): A unit for expressing the relative intensity of sounds on a scale of zero for the average least perceptible sound to about 130 for the average pain level.

Decision altitude (DA): The minimum altitude above mean sea level to which an aircraft operating according to a precision instrument approach may descend without visual contact with the airport or the airport environs.

Decision height (DH): The minimum vertical distance above the height of the intended landing zone to which an aircraft operating according to a precision instrument approach may descend without visual contact with the airport or the airport environs.

Departure Procedure (DP): See instrument departure procedure.

Descent slope: The angle, with respect to a horizontal plane, of the flight path of an aircraft descending from a higher altitude to a lower altitude (usually expressed in degrees or in feet per nautical mile). Also referred to as angle of descent.

Distance Measuring Equipment (DME): An apparatus, consisting of a ground-based radio transmitter and a specialized airborne receiver, which provides information regarding the slant-range distance of an aircraft from the ground-based facility. Also, by extension, any airborne maneuver, course, or flight path which is determined through the application of DME information.

Dormitory: A building used or intended for use as group quarters for members of a student body, military unit, or religious order and located on the site of a college, university, boarding school, convent, monastery, military camp, or other similar institutional use.

Downwind departure: A VFR departure procedure in which an aircraft exits the airport area by extension of the downwind leg of the traffic pattern.

Downwind leg: A segment of the standard airport traffic pattern which is parallel to the runway of intended landing, is usually between 1/2 and 1 1/2 miles lateral to the runway, and is flown in a direction opposite to the direction of intended landing. The downwind leg is, in most instances, the initial leg of the traffic pattern for landing aircraft. The altitude of general aviation aircraft flying the base leg is usually between 1000 and 800 feet above ground level.

Drive-in theatres: Facilities for presentation of motion pictures for viewing from vehicles. May include subordinate eating places or play areas for children.

Electrical generating plant: Any facility engaged in the production of electric energy for sale. The electricity may be generated from oil, gas, coal, nuclear materials, water, wind, solar energy, bio-gas, municipal or agricultural waste, or geothermal energy. Does not include the generation of electrical energy by means of wind, water, solar panels or temporary generator if the primary use for such energy is on-site consumption.

Employee sleeping room: Sleeping quarters which are located on the site of a nonresidential business and are provided, without charge, by an employer for temporary or transient use by employees in the course of or in conjunction with the performance of required duties.

Enplaned passengers: The total number of revenue-producing passengers boarding aircraft, including originating, stopover, and transfer passengers, in scheduled and nonscheduled services.

Fairgrounds: A site where temporary public or commercial gatherings are held under the sponsorship and control of private individuals or government entities and at which gatherings entertainment, food, rides, games, crafts, and the like are offered for viewing or sale.

Farm equipment and supplies – sales: Land use primarily consisting of the sale, rental, or repair of agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting or harvesting of crops; also dairy and other livestock equipment. Includes agricultural machinery (except the sale of trailers, tractors, or other motorized self-propelled farm vehicles, which are included under “Auto, Mobilehome and Vehicle Dealers and Supplies”), dairy farm machinery and equipment, irrigation equipment, hay, grain, and feed sales, retail sales of prepackaged fertilizer and agricultural sprays. Sales may include the final assembly of farm machinery, implements, or equipment from component parts received from the manufacturer, but not the creation of such components from raw materials.

Farm support quarters: Residences, roaming or boarding houses, and mess halls for farm workers employed on and near land owned by the owner of the building site on which the quarters are located.

Fixed base operator (FBO): A provider of support services to users of an airport. Such services include fueling, hangaring, flight training, repair, maintenance, and other services.
**Fraternity or sorority house:** A residence for college or university students who are members of a social or educational association and where such organization holds meetings or gatherings.

**General aviation:** That portion of civil aviation which encompasses all facets of aviation except air carriers and air charters.

**Glide slope:** The vertical flight path flown by aircraft receiving and adhering to information from an apparatus which provides, by means of radio, light, or other signals, vertical guidance for approaching and landing at an airport.

**Global positioning system (GPS):** A navigational aid which determines the position, direction of flight, speed, and (to a limited extent) altitude of an aircraft by means of signals received from a constellation of earth-orbiting satellites.

**Global positioning system (GPS) approach:** A series of standardized, predetermined, and published aerial maneuvers which are based on navigational data received from earth-orbiting satellites and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information. A typical GPS approach permits aircraft to descend to within 400-500 feet of the surface solely on the basis of satellite navigation aids.

**Global positioning system (GPS) overlay:** An FAA designation applied to certain instrument approach procedures originally designed to be executed by reference to ground-based navigational aids which authorizes pilots to perform the approach solely by reference to navigational information provided by earth-orbiting GPS satellites.

**Grazing:** The keeping of herbivorous animals at a density of less than two animals per acre.

**Gross Area or Gross Acreage:** For the purposes of this ALUP, the terms *gross area* and *gross acreage* will be considered interchangeable, and will be considered to indicate a measurement of the entire size of the site, parcel, intended use, or zone specified by a referral to the ALUC.

**Gross Floor Area:** For the purposes of this ALUP, the terms *gross floor area* is defined as the total number of square feet of floor area enclosed within the walls of a structure, including, for multi-story structures, the area on all floors. The gross floor area includes all common areas, such as hallways, entryways, atria, restrooms, and storage areas, as well as workspaces and dwelling units. Indoor areas designed exclusively for parking of vehicles owned by employees, residents, customers, or visitors are excluded, unless such vehicles are offered for sale, lease, rental, or hire.

**Hazardous, corrosive, or flammable chemicals:** Refers to manufacturing land uses which entail the use of or result in the production of materials which are poisonous, infectious, caustic, corrosive, acidic, flammable, explosive, or radioactive to the extent that such materials could cause harm to persons who might be exposed to them.

**Health services, ambulatory:** Land use primarily for the furnishing of medical, mental health, surgical, and other personal health services on an outpatient basis. Includes offices of physicians, dentists, psychiatrists, osteopaths, opticians, chiropractors, and alternative or natural healers, as well as urgent care facilities and allied health services. Facilities offering inpatient care (hospitals, convalescent homes, skilled nursing facilities, etc.) are excluded, as are medical and dental laboratories.

**High intensity land use:** A land use which is characterized by a potential to attract dense concentrations of persons to a small or confined indoor or outdoor area, even for limited time periods, or which can attract above average concentrations of persons for longer periods of time, potentially aggravating the consequences of an aviation-related accident.

**High occupancy residential use:** Any dwelling, other than a residential care facility, in which the occupancy consists of six or more adults.

**High voltage transmission lines:** Any above ground facility for the long-distance transmission of electric power, including wires, towers, transformers, and insulators. Includes all structures and apparatus for transmission of power from a generating plant or distribution substation to distant communities or for transfer of power between communities. Wires and apparatus for distribution of power within a local community are excluded.

**Homeless shelters:** Any facility which regularly houses homeless people or persons needing protection from domestic violence on an overnight basis.

**Home occupations:** The gainful employment of the occupant of a dwelling, with such employment activity being subordinate to the residential use of the property, and there is no display, no stock in trade, and no commodity sold on the premises and no employees other than residents of the dwelling.

**Homestays:** A residential structure with a family or an individual in permanent residence where no more than two bedrooms (without cooking facilities) are rented for overnight transient lodging. Does not include provision of meals.

**Hospital:** A facility housing and offering a full range of acute and convalescent medical care to individuals who exhibit physical, emotional, or mental disability or illness.

**Hotel/motel:** Any structure or facility intended or suitable for short-term occupancy by persons as a temporary dwelling, with the exception of bed and breakfast facilities and homestays. Characteristics which distinguish a hotel or motel from a bed and breakfast inn or homestay typically include: a central climate control system and absence of openable windows, and the absence...
of extensive outdoor landscaping or lawns, walking paths, or outdoor dining/conversation areas. Examples of this type of land use include hotels, motels, youth hostels, pensiones, and temporary shelters.

**Inconsistent**: A determination made by the ALUC when a proposed local action does not meet the conditions outlined in the ALUP.

**Instrument approach**: A series of standardized, predetermined, and published aerial maneuvers which are based on navigational data received from ground-based navigational aids or satellites and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information.

**Instrument departure procedure (DP)**: A series of standardized, predetermined, and published aerial maneuvers which are based on navigational data received from ground-based navigational aids or satellites and which enable aircraft to depart from an airport when meteorologic conditions are such that a safe departure cannot be made solely through the use of visual information. Formerly known as a **standard instrument departure (SID)**.

**Instrument flight rules (IFR)**: A set of FAA rules, regulations, and procedures which define flight operations under conditions which do not permit navigation by means of visual information alone. Also employed as an adjective to designate a flight plan which will enable an aircraft to operate under conditions which preclude navigation by means of visual information.

**Instrument landing system (ILS)**: A precision instrument approach system which provides aircraft with both vertical (glideslope) and lateral guidance by means of radio signals transmitted from installations within the physical boundaries of the airport.

**Instrument landing system (ILS) approach**: A series of standardized, predetermined, and published aerial maneuvers which are based on vertical and lateral navigational data received from radio transmitters located within the physical boundaries of the airport and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information. A typical ILS approach permits aircraft to descend to within 200 feet of the surface.

**Instrument meteorologic conditions (IMC)**: Weather conditions specified in FAA regulations under which aircraft are not authorized to takeoff, land, or maneuver under visual flight rules and may operate only by reference to electronic aids to navigation. The visibility and cloud clearance requirements for IMC are determined by the airspace designation in which and aircraft is operating, by the aircraft’s altitude above both sea level and ground level, and by whether the aircraft is operating in daylight or at night.

**Libraries and museums**: Permanent public or quasi-public facilities (generally of a noncommercial nature) devoted to the storage and preservation of printed materials or physical artifacts and to providing public access to such items for scholarly research or personal intellectual enrichment. Includes libraries, museums, art exhibitions, planetariums, aquariums, botanical gardens, arboretums, and historical sites and exhibits.

**Localizer (LOC)**: An apparatus which provides, by means of radio signals from a transmitter located within the physical boundaries of an airport and a specialized airborne receiver, lateral course guidance for aircraft descending to land.

**Localizer approach**: A series of standardized, predetermined, and published aerial maneuvers which are based on lateral guidance information received by means of a localizer receiver located within the physical boundaries of an airport and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information. Localizer approaches do not provide vertical guidance, but localizers are often coupled with glide slope transmitters. A typical localizer approach permits aircraft to descend to within 400-500 feet of the surface solely on the basis of radio navigation aids.

**Localizer-type directional array (LDA)**: A type of apparatus which provides, by means of radio signals from a transmitter located within the physical boundaries of an airport and a specialized airborne receiver, lateral course guidance for aircraft descending to land. The primary distinction between an LOC and an LDA is that the final approach course provided by the LDA is not aligned with the runway centerline. Glide slope information is never provided in conjunction with an LDA.

**Localizer-type directional array (LDA) approach**: A series of standardized, predetermined, and published aerial maneuvers which are based on lateral guidance information received by means of an LDA transmitter located within the physical boundaries of an airport and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information.

**Manufacturing**: The production, fabrication, or assembly of any product, including, but not limited to apparel products, chemical products, concrete, gypsum, or plaster products, electrical equipment, electronic or scientific instruments, food and kindred products, furniture, fixtures, glass products, lumber, wood products, machinery, metal products, motor vehicles, paper products, paving materials, plastic products, rubber products, and printed materials. Excluded are processes and facilities which produce or utilize hazardous, corrosive, or flammable chemicals; refining or bulk storage of petroleum products; and electrical generating plants.
**Membership organizations facility:** Permanent headquarters and meeting facilities for organizations operating on a membership basis for the promotion of the interests of members. Includes facilities for business associations, professional organizations, labor unions, grange and farm centers, civic/social/fraternal organizations, political organizations, and other membership organizations. Does not include country clubs in association with golf courses, which are included in “Outdoor Sports and Recreation”.

**Minimum descent altitude (MDA):** The minimum altitude above mean sea level to which an aircraft operating according to a non-precision instrument approach may descend without visual contact with the airport or the airport environs.

**Minimum descent height (MDH):** The minimum vertical distance above the height of the intended landing zone to which an aircraft operating according to a non-precision instrument approach may descend without visual contact with the airport or the airport environs.

**Missed approach:** An instrument approach which does not terminate in a landing. Usual reasons for a missed approach include failure to establish visual contact with the airport environs at the completion of an instrument approach, loss of course guidance, or instructions from air traffic control.

**Missed approach course:** A standardized, predetermined, and published flight path to be flown in the event of a missed approach.

**Mobilehome park:** Any area or tract of land where two or more mobilehome lots or spaces are leased or rented or held out for lease or rental to accommodate manufactured homes or mobilehomes for human habitation.

**Mobilehome:** A structure which is transportable in one or more sections and which is designed and equipped to contain not more than two dwelling units, to be used with or without a foundation system. Does not include recreational vehicles, commercial coaches, or factory-built housing.

**Multifamily residential (land use):** Any project, development, or other land use in which separate families and/or unrelated individuals occupy dwelling units which share a common wall or a common roof, or occupy a common legal parcel of real estate. Examples include duplexes, triplexes, quadruplexes, apartment buildings, condominiums, townhouses, and residential courts. In addition, institutional uses such as hospitals, nursing homes, board and care facilities, correctional institutions, and boarding schools, which entail the long-term occupancy of a single-structure by unrelated individuals will be considered to be multifamily residential in nature.

**Nautical mile (nm):** A measure of distance equal to 6076.115 feet (1852 meters).

**Nightclub or discotheque:** Any establishment engaged, as a primary activity, in providing entertainment (other than motion pictures, television, or sporting events) and/or dancing in conjunction with the sale of food and/or alcoholic or nonalcoholic beverages for on-site consumption.

**Non-directional beacon (NDB):** A radio beacon which transmits signals which do not contain encoded directional information, but which can be used for as a “homing” signal for aircraft tracking to or away from the transmitter.

**Non-directional beacon (NDB) approach:** A series of standardized, predetermined, and published aerial maneuvers which are based on lateral guidance information received by means of an NDB transmitter located either at or remote from an airport and which enable aircraft to descend with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information.

**Non-precision instrument approach procedure:** An instrument approach procedure for which vertical guidance is not provided.

**Nonresidential density:** The maximum number of persons per acre of gross area that a nonresidential development is expected to attract during periods of use. If the area subject to a referred local action encompasses more than one Aviation Safety Area (as shown in Figure 3) nonresidential density must be calculated independently for each Safety Area. For purposes of this ALUP, nonresidential density will be determined according to the data provided in Appendix G.

**Nursery specialties:** Establishments primarily engaged in the production of ornamental plants and other nursery products, grown under cover or outdoors. Also includes establishments engaged in the sale of such products (e.g., wholesale and retail nurseries) and commercial scale greenhouses.

**Nursing, residential, and personal care facilities:** Residential and uses characterized by the provision of nursing or health-related care or assistance with tasks of daily living as a principal use. Includes skilled nursing facilities, extended care facilities, convalescent homes, rest homes, board and care facilities, assisted living facilities, children’s homes, orphanages, and residential rehabilitation centers. Does not include halfway houses and self-help group homes, which are classified as “multifamily residential” uses.

**Office:** A business establishment or agency which renders personal, clerical, professional, or financial services as a primary use. Also, any development, regardless of structure size, which includes significant floor space suitable for use by personnel performing or providing personal, clerical, professional, or financial duties or any portion of a structure or site occupied or intended for occupation by personnel performing such duties.

**Operation:** A takeoff or landing.
Organization house: A residential lodging facility operated by a membership organization (other than a fraternity or sorority) for its constituents, and not open to the general public.

Outdoor sports and recreation: Facilities for various sporting and recreational activities. Includes golf courses (with associated country clubs and on-site sales of golfing equipment as a “pro-shop” and/or rental of golf carts and equipment), golf driving ranges, miniature golf courses, skateboard parks, go-cart and miniature auto race tracks, health and athletic clubs with predominately outdoor facilities, tennis courts and tennis clubs, play lots, playgrounds, and athletic fields (nonprofessional). Also includes establishments which rent equipment for outdoor recreation, including ATVs and other unlicensed off-road vehicles, roller skates, surf and beach equipment. Does not include recreation and community centers, which are included in the “public assembly” land use category. Does not include swimming pools and water slides, which are included in the “swimming pools - public” land use category.

Petroleum extraction: Production of crude petroleum or natural gas or recovery of oil from oil sands or shales. On-site processing is permitted only to the extent necessary to permit extraction or to conform extracted crude oil to pipeline requirements.

Petroleum refining and bulk storage: The manufacture, production, or storage of products or substances from crude oil or any derivative of crude oil. Includes oil or gas processing facilities, liquefied natural gas facilities, manufacture of petroleum coke and briquettes, and tank farms.

Pipeline, above ground: Any facility engaged in the transportation of water, crude or refined oil, natural gas, liquefied natural gas, or other commodities by pipelines which lie above the surface of the earth. Also includes above-ground facilities (such as pump stations, bulk stations, surge tanks, and storage tanks) which are associated with buried pipelines.

Precision instrument approach procedure: An instrument approach procedure for which vertical guidance is provided. ILS is the only common type of precision instrument approach currently in use. In the near future, certain GPS approaches will be upgraded to provide vertical guidance information, as well.

Prohibited: A determination made by the ALUC when a proposed local action does not meet the criteria set forth in the Land Use Matrix.

Public assembly and entertainment: Facilities for public gatherings and meetings and for group entertainment. Includes public, semipublic, and private auditoriums, amphitheaters, exhibition and convention halls, civic theatres, meeting halls, facilities for live theatrical presentations, lectures, or concerts, motion picture theatres, recreation and community centers, and meeting halls for rent.

Public building: A structure which is utilized by government or social agencies for the provision of services to the public. Examples of such uses would include post offices, police or fire stations, and offices and agencies of local, state, or federal government.

Public safety facility: A fire station, other fire prevention and fire fighting facility, or police or sheriff substation or headquarters (including interim incarceration facilities).

Public utility facility: A fixed-base structure or facility which serves as a junction point for transferring utility services from one transmission system to another or to local distribution and service systems. Such uses include electrical substations and switching stations; telephone switching facilities; natural gas regulation and distribution stations; public water system wells, treatment plants, and storage; and community wastewater treatment plants, settling ponds, and disposal fields.

Rate of climb: The vertical speed or rate of change in altitude of an aircraft ascending from a lower altitude to a higher altitude (usually expressed in feet per minute).

Rate of descent: The vertical speed or rate of change in altitude of an aircraft descending from a higher altitude to a lower altitude (usually expressed in feet per minute).

Recreational vehicle park: Any area or tract of land where two or more lots or spaces are leased, rented, or otherwise provided, or held out for lease or rental, to accommodated recreational vehicles which are occupied, intermittently or continuously, by humans. May include accessory food and beverage retail sales if such sales are clearly incidental and intended to serve RV park patrons only.

Reserve Space: Land which meets the design criteria specified in Table 8 of this ALUP and which is restricted in perpetuity by deed restriction, easement, or other suitable legal instrument to uses characterized by low occupancy levels and substantially free of structures.

Residential density: The maximum number of dwelling units per acre of gross area of land area specified by or allowable under the provisions of a referral to the ALUC. If the area subject to a referred local action encompasses more than one Aviation Safety Area (as shown in Figure 3) residential density must be calculated independently for each Safety Area.
Restaurant: Any establishment which sells food (other than commercially packaged snack foods) for on-site consumption or which sells prepared foods intended for off-site consumption without further cooking or preparation. Included are conventional restaurants, food takeout establishments, “fast food” restaurants, delicatessens, sandwich shops, soda fountains, and ice cream parlors. Establishments which transport food to other locations for consumption and which are not frequented by members of the public (e.g., catering services, pizza delivery services with no public seating areas) are excluded.

Retail sales – fuels, lubricants, propane, etc.: The public sale of gasoline, aviation gasoline, jet fuel, oils or other lubricants, fuel oil, butane, propane, and/or liquefied natural gas, bottled or in bulk, as a principal use.

Rural recreation and picnicking: Facilities for non-intensive outdoor group activities which do not include sleeping or overnight occupancy. Included are outdoor archery, skeet, rifle, and pistol ranges; outdoor hiking trails and picnic areas; outdoor hot springs or hot tub facilities; and hunting and fishing areas. Not included are dude and guest ranches (classified as “Bed and Breakfast Facilities”), group or organized camps, recreational camps, and RV parks.

Rural residential (land use): As employed in the Land Use Matrix and other sections of the ALUP, the term “rural residential” indicates use of land for dwellings in such manner that no more than one primary dwelling unit is developed per five acres of property.

Schools – college and university: Accredited junior colleges, colleges, universities, and graduate schools which grant associates arts degrees, certificates, or undergraduate or graduate degrees and which require for admission a high school degree or equivalent general academic qualifications.

Schools – preschool to secondary: Facilities providing public, private, sectarian and military educational programs serving students from infancy through grade 12. Boarding schools are included.

Schools – specialized training and education: Business, secretarial, and vocational schools which offer instruction leading to a degree or certificate in trade and commercial areas. Also included are non-degree programs such as music, drama, dance, and language schools; driver’s education courses; seminars and other establishments exclusively engaged in training for religious ministries, and establishments offering educational courses by mail. Facilities, institutions, and conference centers that offer non-degree programs in personal growth and development (e.g., physical fitness, environmental awareness, financial strategies, arts, communications, management, and interpersonal relationships) are not included, but are classified under “Public Assembly and Entertainment”.

Single-family residential (land use): The use of land for dwellings in such manner that only one residential building is permitted on each legal parcel and each building is occupied by no more than one family. Includes factory-built housing, but does not include duplexes, triplexes, quadriplexes, apartment buildings, condominiums, townhouses, residential courts, or secondary dwellings.

Secondary dwelling unit: A permanent dwelling unit which is established on the same legal parcel as an existing dwelling unit and is accessory to such primary dwelling.

Service station: An establishment primarily engaged in the sale of gasoline to motorists. Such business may also offer vehicle services incidental to fuel sales, such as mechanical repair, lubrication, oil change, and tune up, as well as towing services and trailer rentals. In addition, may include a small convenience store. In the event that such business includes a restaurant, coffee shop, delicatessen, fast food establishment or food takeout, it will be inconsistent with the ALUP in those areas where restaurants are inconsistent.

Specialized animal facilities: Intensive animal care or keeping establishments including hog ranches, dairies, dairy and beef cattle feedlots, livestock auctions, sales buildings and sales lot facilities, chicken, turkey, and other poultry ranches, riding academies, equestrian exhibit facilities, veterinary medical facilities and service, animal hospitals, kennels, and zoos.

Sports assembly: Establishments for competitive sports activities, either commercial, publicly-sponsored or school-related, which include facilities or amenities for spectators. Includes stadiums, colosseums, arenas, field houses, race tracks (vehicle or animal), and drag strips.

Standard instrument departure (SID): See instrument departure procedure.

Standard Terminal Arrival Route (STAR): A series of standardized, predetermined, and published routes, procedures and/or maneuvers which enable aircraft to transition safely from the en route environment to the terminal environment. A STAR does not culminate in a landing, but terminates at a point from which an instrument approach to landing may be initiated.

Straight-out departure: A VFR departure procedure in which an aircraft exits the airport area along the extended centerline of the departure runway by extension of the upwind leg of the traffic pattern.

Swimming pool – public: An establishment, either commercial, publicly sponsored, or school related, which provide facilities (indoor or outdoor) for participation in water sports such as swimming, diving, and/or water polo. Includes swimming pools which are open to the public or to members of clubs, organizations or student bodies of schools, water slides, and aquatic parks. Does not include swimming pools which are adjacent to and restricted to use by occupants of private single family or multifamily residences or transient lodgings.
Tactical air navigation facility (TACAN): A ground-based radio navigational aid which transmits encoded signals that enable aircraft equipped with appropriate receivers to determine both bearing and distance with respect to the facility. The information with respect to bearing is generally available only to military aircraft, while information regarding distance is usable by both military and civil aircraft. TACAN facilities are frequently co-located with VORs.

Temporary construction trailer park: A site, whether improved or unimproved, provided by the developer of a construction project to afford short-term employees the opportunity to utilize mobilehomes or recreational vehicles for housing during project construction.

Temporary dwelling: A mobilehome or recreational vehicle which is occupied as a dwelling unit for a limited period of time following the issuance of a building permit for a permanent residence and during the construction of such permanent residence.

Temporary event: Use of a structure or land for an activity over a specified, limited period of time where the site is not to be permanently altered by grading or construction. Includes art shows, rodeos, religious revivals, tent camps, outdoor festivals and concerts.

Transit terminal: A passenger station for a vehicular and/or rail mass transit system. Includes busses, taxis, subways, and railway systems. A facility for the maintenance and service of vehicles operated in the transit system is excluded, unless such facility also functions as a passenger station.

Truck stop: An establishment primarily engaged in the sale of fuels to commercial trucks in transit. Such business may also offer vehicle services incidental to fuel sales, such as mechanical repair, lubrication, oil change, and tune up, as well as towing services and trailer rentals. In addition, may include such driver services as a small convenience store, a restaurant or coffee shop, showers, and lockers.

Upwind leg: A segment of the airport traffic pattern which is coincident with the centerline of the departure runway. The upwind leg is the initial leg of the traffic pattern for departing aircraft and extends from takeoff to the crosswind leg or departure from the airport area.

Vehicle and freight terminal: An establishment providing services incidental to transportation, including freight forwarding services, transportation arrangement services, packing, crating, inspection and weighing services, freight terminal facilities, trucking facilities, transfer and storage, and bulk mail handling. Includes rail, air, and motor freight transportation. Storage of toxic, corrosive, or radioactive material is excluded.

Very high frequency omnidirectional range (VOR): A ground-based radio navigational aid which transmits encoded signals that enable aircraft equipped with appropriate receivers to determine their bearing with respect to the facility.

Very high frequency omnidirectional range with distance-measuring equipment (VOR-DME): A ground-based radio navigational aid which combines a VOR transmitter with a DME facility and which transmits encoded signals that enable aircraft equipped with appropriate receivers to determine both relative bearing and distance with respect to the facility.

Very high frequency omnidirectional range with tactical air navigation (VORTAC): A ground-based radio navigational aid which combines a VOR transmitter with a TACAN facility and which transmits encoded signals that enable both military and civilian aircraft equipped with appropriate receivers to determine both bearing and distance with respect to the facility.

Visual approach: A procedure whereby an aircraft which is operating in VMC according to an IFR flight plan and under control of an air traffic control facility may proceed to the airport of destination and land using visual navigational cues.

Visual approach slope indicator (VASI): A navigational aid installed adjacent to an airport runway which provides, by means of colored light beams, vertical course guidance to aircraft approaching to land on that runway. The usual descent slope provided by VASI installations is 3°.

Visual flight rules (VFR): A set of FAA rules, regulations, and procedures which define flight operations under conditions which allow navigation by means of visual information, pilotage, and dead reckoning alone. Also employed as an adjective to designate a flight plan which will enable an aircraft to operate under conditions which permit navigation by means of visual information alone. For takeoff and landing, operation under visual flight rules requires 3 statute miles visibility and a cloud ceiling of at least 1000 feet. A special VFR clearance may be obtained from ATC if visibility is 1 statute mile or greater and the pilot can maneuver to remain clear of clouds in the vicinity.

Visual meteorologic conditions (VMC): Weather conditions specified in FAA regulations under which aircraft are authorized to takeoff, land, and maneuver under visual flight rules and by means of only visual navigational information. Electronic aids to navigation may be utilized by aircraft operating in VMC, but are not required. The visibility and cloud clearance requirements for VMC are determined by the airspace designation in which and aircraft is operating, by the aircraft’s altitude above both sea level and ground level, and by whether the aircraft is operating in daylight or at night.

VOR approach: A series of standardized, predetermined, and published aerial maneuvers which are based on lateral guidance information received by means of a VOR transmitter and which enable aircraft to descend toward an airport with the intention of landing when meteorologic conditions are such that a safe approach cannot be made solely through the use of visual information.
The VOR facility may be located within the physical boundaries of the destination airport or at some distance from the airport. VOR approaches do not provide vertical guidance. A typical VOR approach permits aircraft to descend to within 400-500 feet of the surface solely on the basis of radio navigation aids.

**Warehousing**: The storage of commercial goods of any nature for later distribution to wholesalers and retailers. Also includes warehouse, storage, or mini-storage facilities offered for rent or lease to the general public. Does not include facilities where the primary purpose of storage is for wholesaling and distribution, nor terminal facilities for handling freight.

**Wholesaling and distribution**: The sale of merchandise to retailers, to industrial, commercial, institutional, farm, or professional business users, or to other wholesalers.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGL</td>
<td>Above ground level</td>
</tr>
<tr>
<td>ALS</td>
<td>Approach lighting system</td>
</tr>
<tr>
<td>ALUC</td>
<td>Airport Land Use Commission</td>
</tr>
<tr>
<td>ALUP</td>
<td>Airport Land Use Plan</td>
</tr>
<tr>
<td>ARTCC</td>
<td>Air route traffic control center</td>
</tr>
<tr>
<td>ATCT</td>
<td>Airport traffic control tower</td>
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<tr>
<td>CDI</td>
<td>Course deviation indicator</td>
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<tr>
<td>CNEL</td>
<td>Community noise equivalent level</td>
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<tr>
<td>dB</td>
<td>Decibel</td>
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<tr>
<td>DA</td>
<td>Decision altitude</td>
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<tr>
<td>DH</td>
<td>Decision height</td>
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<td>Distance measuring equipment</td>
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<tr>
<td>DP</td>
<td>Instrument departure procedure</td>
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<td>U.S. Environmental Protection Agency</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FAR</td>
<td>Federal aviation regulation</td>
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<tr>
<td>FBO</td>
<td>Fixed base operator</td>
</tr>
<tr>
<td>GPS</td>
<td>Global positioning system</td>
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<tr>
<td>GS</td>
<td>Glide slope</td>
</tr>
<tr>
<td>IFR</td>
<td>Instrument flight rules</td>
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<tr>
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<td>Instrument landing system</td>
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<tr>
<td>IMC</td>
<td>Instrument meteorologic conditions</td>
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<tr>
<td>LDA</td>
<td>Localizer-type directional array</td>
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<td>LOC</td>
<td>Localizer</td>
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<tr>
<td>MDA</td>
<td>Minimum descent altitude</td>
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<tr>
<td>MDH</td>
<td>Minimum descent height</td>
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<tr>
<td>NDB</td>
<td>Non-directional beacon</td>
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<tr>
<td>NRDC</td>
<td>Natural Resources Defense Council</td>
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<tr>
<td>nm</td>
<td>Nautical mile</td>
</tr>
<tr>
<td>PUC</td>
<td>Public Utilities Code</td>
</tr>
<tr>
<td>SID</td>
<td>Standard instrument departure</td>
</tr>
<tr>
<td>STAR</td>
<td>Standard terminal arrival route</td>
</tr>
<tr>
<td>TACAN</td>
<td>Tactical air navigation facility</td>
</tr>
<tr>
<td>VASI</td>
<td>Visual approach slope indicator</td>
</tr>
<tr>
<td>VHF</td>
<td>Very high frequency</td>
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<td>VHF omnidirectional range with tactical air navigation equipment</td>
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<td>WHO</td>
<td>World Health Organization</td>
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APPENDICES
APPENDIX A

AIRPORT INFORMATION

AIRPORT INFORMATION

General Description

The San Luis Obispo County Regional Airport/McChesney Field is located approximately three and one-half miles south of the city of San Luis Obispo on 320 acres of land within an unincorporated area of the County. The FAA designation for the airport is SBP, and the ICAO designation is KSBP.

Air traffic control services are provided by a federal contract control tower which operates from 7 am to 8 pm local time. Radar services are provided to arriving and departing aircraft through the Los Angeles Air Traffic Control Center, but local radar services are not available.

Two runways are available for use at the San Luis Obispo County Regional Airport. Runway 11-29 is currently 5,300 feet in length and 150 feet in width. The rated capacity of this runway is 65,000 lbs. for aircraft equipped with landing gear in the dual wheel configuration. Runway 11-29 is equipped with High Intensity Runway Lights (HIRL) for night operations and the adjacent taxiways are also lighted. Lighting is pilot-controlled during periods when the control tower is not in operation. Visual Approach Slope Indicators (VASI) are available for both Runway 11 and 29. Runway 11 is also equipped with a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR-RAILS).

Runway 7-25 is 3,259 feet in length and 100 feet in width. The rated capacity is 12,500 pounds and the runway is unlighted.

A precision (Instrument Landing System or ILS) instrument approach is currently operational for Runway 11, with a circle to land procedure for Runway 29. In addition, three non-precision instrument approaches to the airport are also available: the VOR or GPS-A approach from the Morro Bay VOR, the RNAV (GPS) Runway 11 approach, and the RNAV (GPS) Runway 29 approach. Each of these non-precision instrument approaches includes a published circle-to-land procedure. Five instrument departure procedures are published for aircraft departing the airport: the Avila Three Departure, the Crepe Three Departure, the Wynrr One Departure, the obstacle departure procedure for Runway 11, and the obstacle departure procedure for Runway 29.

Commercial passenger service is currently provided at the San Luis Obispo County Regional Airport by three air carriers – Skywest/United Express, American Eagle, and America West. Commercial cargo service is provided by AmeriFlight, by Federal Express, and by United Parcel Service. Flight training is provided by Air San Luis, PCF Aviation, and Helipro.

Groundside facilities at the airport include a 10,500 square-foot passenger terminal with its attendant parking facilities, baggage areas, and ramps, a full service restaurant, an airline storage/maintenance facility, a fire station, approximately 156 general aviation hangars and 152 tie-down positions, three flight schools (including one which provides helicopter training), two fuel vendors, and six repair stations. A self-service fuel island is also available.
Environmental Factors

- **Climate** – The microclimate of the City of San Luis Obispo is notably temperate. Average monthly temperatures range from a low of 41.7°F in January to a high of 78.7°F in September. Rainfall, averaging 23 inches per year, tends to be concentrated in the winter months. The absence of extreme climatic conditions tends to encourage residents of the area to open windows during most of the year and encourages outdoor activities. These factors tend to aggravate airport noise incompatibility issues, particularly with respect to residential land uses.

- **Prevailing Winds** – Local airflow patterns are generally associated with a moderate to strong onshore wind from the northwest. This condition favors the disproportionate use of Runway 29 for both arrivals and departures. The situation is aggravated by the relatively short length of the runways at SBP, which usually renders landing or taking off with a tail wind unsafe. The heavy utilization of Runway 29 concentrates air traffic in flight patterns associated with that runway and increases noise and overflight impacts in areas beneath these paths to a greater degree than would be expected if runway use were more evenly distributed.

- **Topography** – The San Luis Obispo County Regional Airport is located in a valley and is, with the exception of the Los Osos Valley extending to the northwest, largely surrounded by higher terrain associated with the Santa Lucia Mountain Range. Mountainous terrain lies beneath the standard 45° entries to both the right and left downwind approaches to Runway 29 and beneath the right and left crosswind departures from that runway. Several small volcanic intrusion mountains (Terrace Hill, Orcutt Knob, Mine Hill, Islay Hill, and an additional unnamed formation) lie beneath the right traffic pattern for Runway 29. Elevated hilly topography is also found below the “straight-in” approach to Runway 29 and adjacent to the ILS approach to Runway 11. Because of the elevated terrain, the altitude above ground level of aircraft approaching and departing SBP at pattern altitude (1,200 feet above sea level) is much lower than would be the case if the land surrounding the airport were flat. This situation magnifies safety, noise, and overflight concerns with respect to operations at the airport.

Airfield Activities

- **Flight Training** – The relatively high level of flight training at the San Luis Obispo County Regional Airport results in a higher-than-expected amount of low-level, repetitive aircraft operations associated with “touch-and-go” maneuvers. Noise and overflight impacts are greater with this type of activity than with simple departures and arrivals.

Socio-Economic Considerations

- **Airport Environment** – The San Luis Obispo County Regional Airport is surrounded by an area which is essentially quiet and rural in nature. Exceptions to this characterization include commercial uses along State Highway 227 (Broad Street) to the north, suburban residential development northeast of the airport on the east side of Hwy. 227, light industrial uses in the immediate vicinity of the airport boundary and to the along Tank Farm Road, and a circumscribed area of residential use south of the airport (Rolling Hills/Country Club Estates). In contrast, large areas of land to the northwest, west, south, and east of the airport remain open and are utilized primarily for grazing and agriculture. In these areas, the effects of aircraft noise and overflight may be expected to be magnified by the lack of significant background noise.

- **Airport Access** – Transportation access to the San Luis Obispo County Regional Airport is currently marginal at best. Automobile access from the north and west and from the city of San Luis Obispo is by
way of State Highway 227 (Broad Street). This requires negotiating a circuitous course through the city center of San Luis Obispo. Highway 227 also narrows to two lanes at Tank Farm Road (approximately three-quarters of a mile north of the airport entrance.) Access from the south is by way of Tank Farm Road, a two-lane road which is not directly accessible from US Highway 101 and which is often congested with trucks and other commercial vehicles. Although the airport is served by bus service from the city of San Luis Obispo, there is no rail or subway service. Increased traffic congestion resulting from inappropriate development in the airport area, therefore, does entail a significant potential to decrease the value of the airport as a component of the public transportation system if ground access is impaired.

**Encroachment Pressures** – The area surrounding the San Luis Obispo County Regional Airport is facing increasing pressure for development of open areas, particularly for residential uses. Some of the factors which may be responsible for the increasing pressure for encroachment include:

- Relatively strong economic and population growth in the County
- Topography of the area, limiting sites available for residential development
- State mandated requirements for “fair-share” and low income housing
- Vigorous annexation policy on the part of the city of San Luis Obispo

**Local response to airport-related impacts** – The local community has shown, primarily as documented in public comments directed toward the Airport Master Plan and aircraft noise complaints registered with the airport administration, that it is relatively intolerant of aviation impacts and is unusually sensitive to noise and overflight incompatibilities. It is appropriate that the Airport Land Use Plan reflect the sentiments of the local community in this regard.

**Airport Planning Status**

**Airport Master Plan** – The Airport Master Plan for the San Luis Obispo County Regional Airport was prepared by Coffman Associates, Inc. in association with Tartaglia Engineering and Dr. Lee McPeters and was adopted by the Board of Supervisors of the County of San Luis Obispo in December of 1998.

**Airport Master Plan Environmental Assessment/Environmental Impact Report** – The Airport Master Plan EA/EIR was adopted by the Board of Supervisors of the County of San Luis Obispo on December 1, 1998. The airport noise study associated with the EA/EIR was prepared by Brown-Buntin Associates, based on data collected in March of 1998. Noise contours published as a result of this study, however, are not useful for airport land use planning, however, because:

- Projections are made only through the year 2015 – this does not meet the requirement of the State Airport Land Use Planning Handbook that data used in the preparation of an airport land use plan be projected at least 20 years beyond the date of the plan’s preparation.
- Noise contours are not adjusted for possible faster-than-anticipated airport growth or projected to maximum runway capacity as recommended by the State Airport Land Use Planning Handbook.
- Noise contours are plotted only for the 60, 65, and 70 dB CNEL levels. The 55 dB CNEL contour, recommended as the maximum allowable noise level for residential land uses by the State Airport Land Use Planning Handbook, is not illustrated.

**Airport Noise Contours** – The airport noise study completed in April of 2001 by Brown-Buntin Associates is adopted as the current basis for application of ALUP policies because:

- Projections are made of CNEL contours at maximum runway capacity.
- 50, 55, and 60 dB CNEL contours are illustrated.
Airport Layout Plan

The Airport Layout Plan (Sheets 1 through 8) of the Airport Master Plan (December, 1998) is adopted as the Airport Layout Plan for the Airport Land Use Plan.

Anticipated Airport Expansion

The Airport Master Plan and its associated EA/EIR define a number of planned expansions, improvements, and upgrades for the San Luis Obispo County Regional Airport. Since the adoption of the Master Plan in 1998, a number of the projects have, in fact, been implemented. These include:

**Airfield Considerations**
- Increase length of Runway 11-29 from 4,799 feet to 5,300 feet
- Add taxiway connecting West Side hangars with departure end of Runway 29
- Add additional taxiway exits to Runway 11-29

**Terminal Considerations**
- Renovate and expand existing terminal building

**Access Considerations**
- Expand terminal parking facilities

**General Aviation Considerations**
- Expand and relocate general aviation hangars and tie-down sites (in progress)
- Develop self-service fuel facility

Improvements that are specified in the Airport Master Plan, but which have not yet been accomplished are:

**Airfield Considerations**
- Install omnidirectional approach lighting system (ODALS) on Runway 29
- Update visual approach slope indicators (VASIs) on Runway 11-29
- Provide designated site for maintenance run-ups
- Develop precision GPS-WAAS or GPS-LAAS approach for Runway 11

**Terminal Considerations**
- Replace existing terminal building with 35,000 sq. ft. facility

**Access Considerations**
- Evaluate future vehicular approaches to airport and signage
- Segregate terminal and non-terminal traffic into airport area
- Improve terminal curb traffic management

**General Aviation Considerations**
- Develop site for fuel farm

An additional improvement which is being reviewed by airport management at the time of this amendment is the lengthening of Runway 11-29 by a distance of 700 feet to the northwest, to provide a total runway length of 6000 feet.
RESERVED FOR AIRPORT LAYOUT PLAN
RESERVED FOR AIRPORT LAYOUT PLAN
APPENDIX C
TECHNICAL DATA RELEVANT TO DETERMINATION OF AIRPORT SAFETY

a. For purposes of this Airport Land Use Plan, aircraft overflight is considered to be a significant safety hazard in:

i. Where overflight is a frequent or regular occurrence – those areas which are located within 1/2 nautical mile of a flight path or paths which are utilized by 10% or greater (as specified in the Environmental Assessment/Environmental Impact Report of the Airport Master Plan (November, 1998) of aircraft arriving, departing from, or operating in closed traffic at the San Luis Obispo County Regional Airport. These flight paths include (in order of frequency of use):
   - left closed traffic, Runway 29
   - straight-in arrival, Runway 29
   - left downwind departure, Runway 29
   - right closed traffic, Runway 11
   - right 45° arrival, Runway 29 (standard entry into traffic pattern)
   - left downwind arrival, Runway 29 (extended downwind entry into traffic pattern)
   - straight out departure, Runway 29
   - right crosswind departure, Runway 29
   - right downwind arrival, Runway 11 (extended downwind entry into traffic pattern)
   - right downwind departure, Runway 29
   - left crosswind departure, Runway 29
   - left 45° arrival, Runway 29 (standard entry into traffic pattern)

It should be noted that the flight tracks depicted for approach, departure, and closed traffic pattern in Environmental Assessment/Environmental Impact Report of the Airport Master Plan (November, 1998) are highly schematic and do not indicate the geographic areas over which aircraft operations may be expected.

ii. Where overflight occurs during periods of reduced visibility – those areas which are located within 1/2 nautical mile of the positive approach control area, circle-to-land flight path, or missed approach course of any published or planned instrument approach to or instrument departure from the San Luis Obispo County Regional Airport. Instrument procedures to be considered include, but are not limited to, the following:
   - ILS approach, Runway 11 (with circle-to-land procedure)
   - VOR or GPS-A approach (with circle-to-land procedure)
   - RNAV (GPS) approach, Runway 11 (with circle-to-land procedure)
   - RNAV (GPS) approach, Runway 29 (with circle-to-land procedure)
   - CREPE.3 instrument departure procedure
   - AVILA.3 instrument departure procedure
   - WYNNR.1 instrument departure procedure
   - obstacle departure procedure, Runway 11
   - obstacle departure procedure, Runway 29
b. For purposes of this Airport Land Use Plan, the Airport Land Use, aircraft approaching the San Luis Obispo County Regional Airport will be assumed to descend at an angle of $3\pm0.7^\circ$ or to be at the minimum altitude specified by a published instrument approach procedure, whichever shall be lower. The specified descent angle of $3\pm0.7$ is the standard slope for both ILS glideslope and VASI visual descent procedures.

c. For purposes this Airport Land Use Plan, aircraft departing the San Luis Obispo County Regional Airport will be assumed to climb at a rate of 200 feet per nautical mile, the minimum climb gradient specified for IFR operations by U. S. Standards for Terminal Instrument Procedures (TERPS).

d. For purposes of this Airport Land Use Plan, the gliding distance of an aircraft that has lost engine power will be assumed to be 1 nautical mile per 1000 feet of altitude above ground level.

e. For purposes of this Airport Land Use Plan, the term *published instrument approach flight path* is defined as the airspace within which reliable course guidance is provided to aircraft descending to land at or departing from the San Luis Obispo County Regional Airport under established or planned instrument procedures. The width of the published instrument approach flight path is determined by the type of navigational aid which provides course guidance for the instrument approach or instrument departure procedure, as follows (all angles have their apices at the relevant radio aid to navigation):

   i. ILS or localizer approach or departure procedure based on localizer guidance – the published instrument approach flight path extends $2.5^\circ$ on either side of the centerline of the approach or departure procedure.

   ii. VOR approach, missed approach procedure, or departure procedure based on VOR course guidance – the published instrument approach flight path extends $10^\circ$ on either side of the centerline of the approach procedure.

   iii. GPS approach, missed approach procedure, or departure procedure based on GPS course guidance – for GPS approach procedures, at distances beyond 2 nautical miles from the final approach fix, the published instrument approach flight path extends 1 nautical mile (6076 feet) on either side of the centerline of the approach procedure; at distances within 2 nautical miles of the final approach fix, the published instrument approach flight path extends 0.3 nautical mile (1823 feet) on either side of the centerline of the approach procedure; for GPS missed approach procedures or instrument departures, the published instrument approach flight path extends 1 nautical mile (6076 feet) on either side of the published course for the instrument procedure.
# APPENDIX D

## INSTRUMENT APPROACHES AND DEPARTURE PROCEDURES

<table>
<thead>
<tr>
<th>Sheet 1</th>
<th>Instrument Approach: ILS Approach, Runway 11</th>
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<td>Sheet 2</td>
<td>Instrument Approach: VOR or GPS-A Approach</td>
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<tr>
<td>Sheet 3</td>
<td>Instrument Approach: GPS Approach, Rwy 11</td>
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<td>Sheet 4</td>
<td>Instrument Approach: GPS Approach, Rwy 29</td>
<td>Page 93</td>
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<tr>
<td>Sheet 5</td>
<td>Instrument Departure Procedure: CREPE THREE Departure</td>
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<td>Sheet 6</td>
<td>Instrument Departure Procedure: WYNNR ONE Departure</td>
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<tr>
<td>Sheet 7</td>
<td>Instrument Departure Procedure: AVILA THREE Departure</td>
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<td>Sheet 8</td>
<td>Obstacle Departure Procedures: Runways 11 and 29</td>
<td>Page 97</td>
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</tbody>
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**APPENDIX D SHEET 1: INSTRUMENT PROCEDURES: ILS APPROACH, RUNWAY 11**

### KSBP

**SAN LUIS OBISPO, CALIF**

**ILS Rwy 11**

**29 MAR 02**

**Public Review Draft:** Airport Land Use Plan  
San Luis Obispo County Regional Airport  
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Airport Land Use Commission  
January 18, 2004

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<tr>
<th>LOC</th>
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<th>GS DOBRA (1987')</th>
<th>ILS DA(H) (200')</th>
<th>APT ELEV</th>
<th>MDA(H) (200')</th>
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<td>109.7</td>
<td>110°</td>
<td>2182'</td>
<td>395' (200')</td>
<td>209'</td>
<td>195'</td>
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**MISSAP CH:** Climb to 1200', then climbing RIGHT turn to 3000' via heading 175° and inbound on MQO VOR R-126 to MQO VOR and hold.

Pilot controlled lighting 124.0

---

**Not Legal for Navigation**

---

**GROUND SPEED-KTS**

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<th>120</th>
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<th>MALER GS °</th>
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**DOBRA TO MAP 11-1**

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<td>3:04</td>
<td>2:37</td>
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**CIRCLE-TO-LAND**

Not Authorized North of Runway 11-29

**ILS DA(H) 395' (200')**

- **With Hasby**
  - **MDA(H)** 640' (445')
  - **GS 2182' (1987')**
  - **Apt Elev 209'**
  - **TDZE 195'**

- **Without Hasby**
  - **MDA(H)** 1060' (665')
  - **GS 2182' (1987')**
  - **Apt Elev 209'**
  - **TDZE 195'**

**MISSED APCH:**

- Climb to 1200', then climbing RIGHT turn to 3000' via heading 175° and inbound on MQO VOR R-126 to MQO VOR and hold.
- Pilot controlled lighting 124.0
APPENDIX D SHEET 2: INSTRUMENT PROCEDURES: VOR OR GPS-A APPROACH

MISSED APCH: Climbing RIGHT turn to 3000' via heading 175° and inbound on MQO VOR R-126 to MQO VOR and hold.

Pilot controlled lighting 124.0

Not Legal for Navigation
APPENDIX D SHEET 3: INSTRUMENT PROCEDURES: RNAV (GPS) APPROACH, RUNWAY 11

PASO ROBLES VOR

CREPE

JAMPO

CADAB

MISSED APCH: Climb to 3300' via 111° course to CADAB and hold.

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

RNAV (GPS) Approach, Runway 11

San Luis Obispo, Calif.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

121.6

Final Apch Crs

103°

JAMPO

2400' (2205')

LNAV MDA(H)

1000' (805')

Apt Elev

209'

TDZE 195'

MISSING APCH FIX:

MISSED APCH:

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

121.6

Final Apch Crs

103°

JAMPO

2400' (2205')

LNAV MDA(H)

1000' (805')

Apt Elev

209'

TDZE 195'

MISSING APCH FIX:

MISSED APCH FIX:

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

121.6

Final Apch Crs

103°

JAMPO

2400' (2205')

LNAV MDA(H)

1000' (805')

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209'

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MISSING APCH FIX:

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1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

121.6

Final Apch Crs

103°

JAMPO

2400' (2205')

LNAV MDA(H)

1000' (805')

Apt Elev

209'

TDZE 195'

MISSING APCH FIX:

MISSED APCH FIX:

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

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2400' (2205')

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1000' (805')

Apt Elev

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TDZE 195'

MISSING APCH FIX:

MISSED APCH FIX:

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.

KSBP
San Luis Obispo Co-McChesney

120.6

LOS ANGELES Center

119.05

SAN LUIS Tower

CTAF 124.0

Ground

121.6

Final Apch Crs

103°

JAMPO

2400' (2205')

LNAV MDA(H)

1000' (805')

Apt Elev

209'

TDZE 195'

MISSING APCH FIX:

MISSED APCH FIX:

1. GPS or RNP 0.3 required
2. DME/DME RNP-0.3 not authorized.
3. Pilot controlled lighting 124.0.
**APPENDIX D SHEET 4: INSTRUMENT PROCEDURES: RNAV (GPS) APPROACH, RUNWAY 29**

**MISSED APCH:** Climb to 4000' via 290° course to CREPE and hold.

1. GPS or RNP 0.3 required  
2. DME/DME RNP-0.3 not authorized  
3. VGSI and descent angles not coincident  
4. Pilot controlled lighting 124.0

---

<table>
<thead>
<tr>
<th>ATIS</th>
<th>Final Apc Crs</th>
<th>Minimum Alt</th>
<th>LNAV MDA(H)</th>
<th>Apt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>120.6</td>
<td>290°</td>
<td>2400'</td>
<td>1040'</td>
<td>209'</td>
</tr>
</tbody>
</table>

**RNAV**

**Final Apc Crs:** 290°

**Minimum Alt:** 2400' (2191')

**LNAV MDA(H):** 1040' (831')

**Apt Elev:** 209'

---

**GROUND SPEED**:

- 70 Kts
- 90 Kts
- 100 Kts
- 120 Kts
- 140 Kts
- 160 Kts

**Descent Angle** (°):

- 3.47°
- 4.30°
- 5.55°
- 6.14°
- 7.37°
- 8.60°
- 9.63°

**MAP at RW29**

**RW29**

**Straight-in Landing RWY 29**

**Circle-to-Land**

Not Authorized North of Runway 11-29

<table>
<thead>
<tr>
<th>Type</th>
<th>NA</th>
<th>1</th>
<th>1 1/4</th>
<th>2 1/4</th>
<th>2 3/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>2 3/4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**APPROX Altitude**: 4000'” via 290° course

---

**SAN LUIS OBISPO, CALIF**

**RNAV (GPS) Rwy 29**

**12 MAY 01**

**KSBP**

**SAN LUIS OBISPO CO-McCHESNEY**

**Eff 17 May**

---

**INSTRUMENT PROCEDURES**

**RNAV (GPS) APPROACH, RUNWAY 29**

---

**SAN LUIS OBISPO COUNTY REGIONAL AIRPORT**

**Page 88**

**Airport Land Use Commission**

**January 18, 2004**
This SID requires take-off minimums of 1300-2 or standard and all transitions require a minimum climb gradient of 275’ per NM to 1700’.

Gnd speed-Kts  75  100  150  200  250  300
275’ per NM  344  458  688  917  1146  1375

During VFR conditions watch for opposing traffic on localizer course.

**TAKE-OFF**

**Rwy 29:** Climb via San Luis Obispo localizer ISBP west course to Crepe Int, thence via (transition) or (assigned route).

**TRANSITIONS**

**FRAMS (CREPE3.FRAMS):** From Crepe Int to Frams Int: Via San Luis Obispo localizer ISBP west course and PRB R-204.

**MORRO BAY (CREPE3.MQO):** From Crepe Int to MQO VOR: Via PRB R-196 and MQO R-270.

**PASO ROBLES (CREPE3.PRB):** From Crepe Int to PRB VOR: Via PRB R-196.

Direct distance from San Luis Obispo Co-McChesney Field to: Crepe Int 13NM
This SID requires a minimum climb gradient of 320' per NM to 3000'.

<table>
<thead>
<tr>
<th>Gnd speed-Kts</th>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>320' per NM</td>
<td>400</td>
<td>533</td>
<td>800</td>
<td>1067</td>
<td>1333</td>
<td>1600</td>
</tr>
</tbody>
</table>

**TAKE-OFF**

Rwy 11: Turn RIGHT 130° heading to intercept and proceed via MQO R-100 to Mishi Int, then via FLW R-259 to Wynnr Int, cross Wynnr Int at or above 6000', thence via (transition or assigned route).

**TRANSITIONS**

FELLOW (WYNNR1.FLW): From Wynnr Int to FLW VOR: Via FLW R-259 to FLW VOR.

PASO ROBLES (WYNNR1.PRB): From Wynnr Int to PRB VOR: Via PRB R-133 to PRB VOR.

SAN MARCOS (WYNNR1.RZS): From Wynnr Int to RZS VOR: Via RZS R-315 to RZS VOR.

Direct distance from San Luis Obispo Co-McChesney Field to Mishi Int 11NM.
APPENDIX D SHEET 7: INSTRUMENT PROCEDURES: AVILA THREE DEPARTURE, RUNWAY 11

AVILA THREE DEPARTURE (AVILA3.AVILA) (PILOT NAV)
(RWY 11)

TAKE-OFF
RWY 11: MAINTAIN runway heading to 900', then climbing RIGHT turn to 3000' of assigned altitude, heading 180° to intercept FLW R-259 to Avila Int, then via (transition) or (assigned route).

TRANSITIONS
GAVIOTA (AVILA3.GVO): From Avila Int to GVO VOR: Via V-27 to Orcut Int, then via V-27, MCA 6000 at Orcut Int.
MORRO BAY (AVILA3.MQO): From Avila Int to MQO VOR: Via V-27.
WINCH (AVILA3.WINCH): From Avila Int to Winch Int: Via heading 204° to intercept MQO R-140.

Direct distance from San Luis Obispo Co-McChesney Field to: Avila Int 6NM

NotLegal for Navigation

PUBLIC REVIEW DRAFT: Airport Land Use Plan
San Luis Obispo County Regional Airport
Page 91

Airport Land Use Commission
January 18, 2004
### APPENDIX D SHEET 8: INSTRUMENT PROCEDURES: OBSTACLE DEPARTURE PROCEDURES, RUNWAYS 11 AND 29

#### OBSTACLE DEPARTURE PROCEDURES (PILOT NAV)

(RWY 29 and RWY 11)

During VFR conditions watch for opposing traffic on localizer.

Aircraft departing on MQO VOR R-130 through R-320 (clockwise) climb on course. All others climb in holding pattern to cross MQO VOR at or above 4000' MSL.

#### SAN LUIS OBISPO, CALIF

- **KSBP** 209°
  - Apt Elev 209'
  - 083.0°/5.8 From MQO 112.4

#### DEPARTURE (DP)

**SAN LUIS OBISPO CO-MCCHESNEY**

- **UNICOM 122.95**
- **LOUIS ANGELES Center 119.05**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Call Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>120.6</td>
<td>ATIS</td>
</tr>
<tr>
<td>121.6</td>
<td>San Luis Ground</td>
</tr>
<tr>
<td>124.0</td>
<td>CTAF</td>
</tr>
</tbody>
</table>

#### NOT LEGAL FOR NAVIGATION

- Aircraft departing on MQO VOR R-130 through R-320 (clockwise) climb on course. All others climb in holding pattern to cross MQO VOR at or above 4000' MSL.

#### TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

<table>
<thead>
<tr>
<th>RWY 29</th>
<th>RWY 11</th>
<th>RWY 7-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>With minimum climb of 290/320 NM to 1700'/2300'</td>
<td>Other</td>
<td>With minimum climb of 290/320 NM to 1700'/2300'</td>
</tr>
<tr>
<td>Adequate Vis Ref: STD</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>1 &amp; 2 Eng</td>
<td>1200-2</td>
<td>1200-2</td>
</tr>
<tr>
<td>3 &amp; 4 Eng</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

#### FOR FILING AS ALTERNATE

- Authorized Only When Tower Operating or with Approved Weather Service
- ILS Rwy 11 VOR-A
- LOC Rwy 11
- VOR-A

<table>
<thead>
<tr>
<th>RWY 29</th>
<th>RWY 11</th>
<th>RWY 7-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>1400-3</td>
<td>1400-3</td>
<td></td>
</tr>
<tr>
<td>1100-3</td>
<td>1100-3</td>
<td></td>
</tr>
<tr>
<td>900-2</td>
<td>900-2</td>
<td></td>
</tr>
</tbody>
</table>

#### OBSTACLE DP:

- Rwy 11. climb runway heading to 900' then climbing right turn direct MQO VOR. Rwy 29, climb via runway heading and MQO VOR R-050 to MQO VOR. All aircraft departing on MQO VOR R-130 clockwise R-320 climb on course.
- Others continue climbing in MQO VOR holding pattern (hold southeast, left turns, 306° inbound) to cross MQO VOR at or above 4000'.
APPENDIX E
PUBLIC UTILITIES CODE, SECTIONS 21670 – 21679.5

State of California
PUBLIC UTILITIES CODE

Division 9
Chapter 4. Airports and Navigational Facilities
Article 3.5. Airport Land Use Commission
Section 21670-21679.5

21670.

(a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors of the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, “commission” means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by paragraphs (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all of the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent him or her in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the
pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by
appointment of a new proxy.

(e) A person having an “expertise in aviation” means a person who, by way of education, training,
business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and
familiarity with, the function, operation, and role of airports, or is an elected official of a local agency
which owns or operates an airport.

21670.1.

(a) Notwithstanding any other provision of this article, if the board of supervisors and the city selection
committee of mayors in the county each makes a determination by a majority vote that proper land use
planning can be accomplished through the actions of an appropriately designated body, then the body so
designated shall assume the planning responsibilities of an airport land use commission as provided for
in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) which does not include among its membership at least
two members having an expertise in aviation, as defined in subdivision (e) of Section 21670, shall,
when acting in the capacity of an airport land use commission, be augmented so that that body, as
augmented, will have at least two members having that expertise. The commission shall be constituted
pursuant to this section on and after March 1, 1988.

(c) (1) Notwithstanding subdivisions (a) and (b), and subdivision (b) of Section 21670, if the board
of supervisors of a county and each affected city in that county each makes a determination
that proper land use planning pursuant to this article can be accomplished pursuant to this
subdivision, then a commission need not be formed in that county.

(2) If the board of supervisors of a county and each affected city makes a determination that
proper land use planning may be accomplished and a commission is not formed pursuant to
paragraph (1) of this subdivision, that county and the appropriate affected cities having
jurisdiction over an airport, subject to the review and approval by the Division of Aeronautics
of the department, shall do all of the following:

(A) Adopt processes for the preparation, adoption, and amendment of the comprehensive
airport land use plan for each airport that is served by a scheduled airline or operated
for the benefit of the general public.

(B) Adopt processes for the notification of the general public, landowners, interested
groups, and other public agencies regarding the preparation, adoption, and
amendment of the comprehensive airport land use plans.

(C) Adopt processes for the mediation of disputes arising from the preparation, adoption,
and amendment of the comprehensive airport land use plans.

(D) Adopt processes for the amendment of general and specific plans to be consistent
with the comprehensive airport land use plans.

(E) Designate the agency that shall be responsible of the preparation, adoption, and
amendment of each comprehensive airport land use plan.

(3) The Division of Aeronautics of the department shall review the processes adopted pursuant to
paragraph (2), and shall approve the processes if the division determines that the processes
are consistent with the procedure required by this article and will do all of the following:

(A) Result in the preparation, adoption, and implementation of plans within a reasonable
amount of time.

(B) Rely on the height, use, noise, safety, and density criteria that are compatible with
airport operations, as established by this article, and referred to as the Airport Land
Use Planning Handbook, published by the division, and any applicable federal
aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations.

(C) Provide adequate opportunities for notice to, review of, and comment by the general public, landowners, interested groups, and other public agencies.

(4) If the county does not comply with the requirements of paragraph (2) within 120 days, then the plan and amendments shall not be considered adopted pursuant to this article and a commission shall be established within 90 days of the determination of noncompliance by the division and a plan shall be adopted pursuant to this article within 90 days of the establishment of the commission.

(d) A commission need not be formed in a county that has contracted for the preparation of comprehensive airport land use plans with the Division of Aeronautics under the California Aids to Airport Program (Title 21 (commencing with Section 4050) of the California Code of Regulations), Project Ker-VAR 90-1, and that submits all of the following information to the Division of Aeronautics for review and comment that the county and the cities affected by the airports within the county, as defined by the plans:

(1) Agree to adopt and implement the comprehensive airport plans that have been developed under contract.

(2) Incorporated the height, use, noise, safety, and density criteria that are compatible with airport operations as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations as part of the general and specific plans for the county and for each affected city.

(3) If the county does not comply with this subdivision on or before May 1, 1995, then a commission shall be established in accordance with this article.

(e) (1) A commission need not be formed in a county if all of the following conditions are met:

(A) The county has only one public use airport that is owned by a city.

(B) (i) The county and the affected city adopt the elements in paragraph (2) of subdivision (d), as part of their general and specific plans for the county and the affected city.

(ii) The general and specific plans shall be submitted, upon adoption, to the Division of Aeronautics. If the county and the affected city do not submit the elements specified in paragraph (2) of subdivision (d), on or before May 1, 1996, then a commission shall be established in accordance with this article.

21670.2.

(a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on such an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the comprehensive land use plans required pursuant to Section 21675.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the comprehensive land use plans required pursuant to Section 21675 are not adopted by the
21670.4.

(a) As used in this section, “intercounty airport” means any airport bisected by a county line through its runways, runway protection zones, inner safety zones, inner turning zones, outer safety zones, or sideline safety zones, as defined by the department’s Airport Land Use Plan handbook and referenced in the comprehensive land use plan formulated under Section 21675.

(b) It is the purpose of this section to provide the opportunity to establish a separate airport land use commission so that an intercounty airport may be served by a single airport land use planning agency, rather than having to look separately to the airport land use commissions of the affected counties.

(c) In addition to the airport land use commissions created under Section 21670 or the alternatives established under Section 21670.1, for their respective counties, the boards of supervisors and city selection committees for the affected counties, by independent majority vote of each county’s two delegations, for any intercounty airport, may do either of the following:

(1) Establish a single separate airport land use commission for that airport. That commission shall consist of seven members to be selected as follows:

(A) One representing the cities in each of the counties, appointed by that county’s city selection committee.

(B) One representing each of the counties, appointed by the board of supervisors of each county.

(C) One from each county having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(D) One representing the general public, appointed by the other six members of the commission.

(2) In accordance with subdivision (a) or (b) of Section 21670.1, designate an existing appropriate entity as that airport’s land use commission.

21671.

In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (b) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) of subdivision (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

21671.5.

(a) Except for the terms of office of the members of the first commission, the term of office of each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members is four years. The body which originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing that member. The expiration date of the term of office of each member shall be the first Monday in May in the year in which that member’s term is to expire. Any vacancy in
the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes and necessary quarters, equipment, and supplies shall be provided by the county. The usual and necessary operating expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees necessary to comply with this article. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Section 66016 of the Government Code. Except as provided in subdivision (g), after June 30, 1991, a commission which has not adopted the comprehensive land use plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

(g) In any county which has undertaken by contract or otherwise completed land use plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the land use plans are complete by that date, may continue charging fees after June 30, 1992. If the land use plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

21672.

Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

21673.

In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

21674.

The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.
(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly
development of air transportation, while at the same time protecting the public health, safety, and
welfare.

c) To prepare and adopt an airport land use plan pursuant to Section 21675.

d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to
Section 21676.

e) The powers of the commission shall in no way be construed to give the commission jurisdiction over
the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with
this article.

21674.5.

(a) The Department of Transportation shall develop and implement a program or programs to assist in the
training and development of the staff of airport land use commissions, after consulting with airport land
use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use
commissions in addressing high priority needs, and may include, but need not be limited to, the
following:

(1) The establishment of a process for the development and adoption of comprehensive land use
plans.

(2) The development of criteria for determining airport land use planning boundaries.

(3) The identification of essential elements which should be included in the comprehensive plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining
whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions
which the department determines to be appropriate to provide to commission staff and for
which it determines there is a need for staff training or development.

(c) The department may provide training and development programs for airport land use commission staff
pursuant to this section by any means it deems appropriate. Those programs may be presented in any of
the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or
other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and develop-
ment of airport land use commission staff.

21674.7.

An airport land use commission that formulates, adopts or amends a comprehensive airport land use plan shall
be guided by information prepared and updated pursuant to Section 21674.5 and referred to as the Airport
Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation.
21675.

(a) Each commission shall formulate a comprehensive land use plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating a land use plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the planning area. The comprehensive land use plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission may include, within its plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any federal military airport for all of the purposes specified in subdivision (a). This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The planning boundaries shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the plan and each amendment to the plan.

(e) If a comprehensive land use plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

21675.1.

(a) By June 30, 1991, each commission shall adopt the comprehensive land use plan required pursuant to Section 21675, except that any county which has undertaken by contract or otherwise completed land use plans for at least one-half of all public use airports in the county, shall adopt that plan on or before June 30, 1992.

(b) Until a commission adopts a comprehensive land use plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, “vicinity” means land which will be included or reasonably could be included within the plan. If the commission has not designated a study area for the plan, then “vicinity” means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted plan if the action, regulation, or permit is ultimately inconsistent with the plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.
(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport is not liable for damages to property or personal injury resulting from the city’s or county’s decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations which exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

1. More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.
2. Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

21675.2.

(a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration of the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the location of any proposed development, the application number, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission’s legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

21676.

(a) Each local agency whose general plan includes areas covered by an airport land use commission plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the commission’s plan. If the plan or plans are inconsistent with the commission’s plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its plans. The local agency may overrule the commission after such hearing by a two-thirds vote of its
governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(b) Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission’s plan, the referring agency shall be notified. The local agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(c) Each public agency owning any airport within the boundaries of an airport land use commission plan shall, prior to modification of its airport master plan, refer such proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission’s plan, the referring agency shall be notified. The public agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the commission’s plan.

21676.5.

(a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action, regulation, or permit of the local agency is inconsistent with the commission plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that individual projects shall be reviewed by the commission.

21677.

Notwithstanding Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body.

21678.

With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676 or 21676.5 overrides a commission’s action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency’s decision to override the commission’s action or recommendation.
(a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, which directly affects the use of land within one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction which postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency which took the action does one of the following:

(1) In the case of an action which is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(2) In the case of an action which is not a legislative act, adopts a resolution making findings based on substantial evidence in the record that the proposed action is consistent with the purposes of this article stated in Section 21670.

(3) Rescinds the action.

(4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2) of this subdivision, whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency which took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency’s decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, “interested party” means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

21679.5.

(a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan.

(b) If a commission has been prevented from adopting the comprehensive land use plan by June 30, 1991, or if the adopted plan could not become effective, because of a lawsuit involving the adoption of the plan, the June 30, 1991, date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body adopts an airport land use
plan on or before June 30, 1991, the action shall be dismissed. If the commission or other designated body does not adopt an airport land use plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.
## APPENDIX F
### FEDERAL AVIATION REGULATIONS, PART 77
#### Subparts A through C

### PART 77—OBJECTS AFFECTING NAVIGABLE AIRSPACE

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Subpart A—General

Sec. 77.1 Scope.

This part:

(a) Establishes standards for determining obstructions in navigable airspace;

(b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;

(c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;

(d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and

(e) Provides for establishing antenna farm areas.

Sec. 77.2 Definition of terms.

For the purpose of this part:

“Airport available for public use” means an airport that is open to the general public with or without a prior request to use the airport.

“A seaplane base” is considered to be an airport only if its sea lanes are outlined by visual markers.

“Nonprecision instrument runway” means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

“Precision instrument runway” means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

“Utility runway” means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

“Visual runway” means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

[Amdt. 77-5, 33 FR 5256, Apr. 2, 1968, as amended by Amdt. 77-9, 36 FR 5969, Apr. 1, 1971]

Sec. 77.3 Standards.

(a) The standards established in this part for determining obstructions to air navigation are used by the
Administrator in:

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;
(2) Transferring property of the United States under section 16 of the Federal Airport Act;
(3) Developing technical standards and guidance in the design and construction of airports; and
(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this part but are contained in other publications of the Administrator.


Sec. 77.5  Kinds of objects affected.

This part applies to:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

Subpart B—Notice of Construction or Alteration

Sec. 77.11  Scope.

(a) This subpart requires each person proposing any kind of construction or alteration described in Sec. 77.13(a) to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under Sec. 77.13(a).

(b) Notices received under this subpart provide a basis for:

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled “Obstruction Marking and Lighting,” which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590.

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

(Sec. 6, 80 Stat. 937, 49 U.S.C. 1655
Sec. 77.13 Construction or alteration requiring notice.

(a) Except as provided in Sec. 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in Sec. 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

   (i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with at least one runway more than 3,200 feet in actual length, excluding heliports.

   (ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with its longest runway no more than 3,200 feet in actual length, excluding heliports.

   (iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in paragraph (a)(5) of this section.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) (1) or (2) of this section.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of Subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

   (i) An airport that is available for public use and is listed in the Airport Directory of the current Airman’s Information Manual or in either the Alaska or Pacific Airman’s Guide and Chart Supplement.

   (ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use.

   (iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the region involved, if—

   (1) The construction or alteration is more than 200 feet above the surface level of its site; or

   (2) An FAA regional office advises him that submission of the form is required.

[Amdt. 77-5, 33 FR 5256, Apr. 2, 1968, as amended by Amdt. 77-9, 36 FR 5970, Apr. 1, 1971; Amdt. 77-10, 37 FR 4705, Mar. 4, 1972]
Sec. 77.15  Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.


Sec. 77.17  Form and time of notice.

(a) Each person who is required to notify the Administrator under Sec. 77.13(a) shall send one executed form set (four copies) of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under Sec. 77.13(a) (1) through (4) must be submitted at least 30 days before the earlier of the following dates:

   (1) The date the proposed construction or alteration is to begin.
   (2) The date an application for a construction permit is to be filed. However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of this Part 77 proposing a structure in excess of 2,000 feet above ground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within 5 days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of Sec. 77.13, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to
the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

(Sec. 6, 80 Stat. 937, 49 U.S.C. 1655

Sec. 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under Sec. 77.13(a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1, entitled “Obstruction Marking and Lighting,” the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the manual.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration:

   (1) Would not exceed any standard of Subpart C and would not be a hazard to air navigation;

   (2) Would exceed a standard of Subpart C but would not be a hazard to air navigation; or

   (3) Would exceed a standard of Subpart C and further aeronautical study is necessary to determine whether it would be a hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.


Subpart C—Obstruction Standards

Sec. 77.21 Scope.

(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by Sec. 77.13(a) is filed.

(b) At those airports having defined runways with specially prepared hard surfaces, the primary surface for each such runway extends 200 feet beyond each end of the runway. At those airports having defined strips or pathways that are used regularly for the taking off and landing of aircraft and have been designated by appropriate authority as runways, but do not have specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At those airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for the landing and taking off of aircraft, a determination shall be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those pathways so determined shall be considered runways and an appropriate primary surface as defined in Sec. 77.25(c) will be considered as being longitudinally centered on each runway so determined, and each end of that primary surface shall coincide with the corresponding end of that runway.

(c) The standards in this subpart apply to the effect of construction or alteration proposals upon an airport
if, at the time of filing of the notice required by Sec. 77.13(a), that airport is—

(1) Available for public use and is listed in the Airport Directory of the current Airman’s Information Manual or in either the Alaska or Pacific Airman’s Guide and Chart Supplement; or

(2) A planned or proposed airport or an airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use; or,

(3) An airport that is operated by an armed force of the United States.


Sec. 77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under Sec. 77.25, Sec. 77.28, or Sec. 77.29. However, no part of the take-off or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad, and,

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

[Amdt. 77-9, 36 FR 5970, Apr. 1, 1971]

Sec. 77.25 Civil airport imaginary surfaces.
The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

1. 5,000 feet for all runways designated as utility or visual;
2. 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

1. 250 feet for utility runways having only visual approaches.
2. 500 feet for utility runways having nonprecision instrument approaches.
3. For other than utility runways the width is:
   i. 500 feet for visual runways having only visual approaches.
   ii. 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.
   iii. 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways. The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

1. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:
   i. 1,250 feet for that end of a utility runway with only visual approaches;
   ii. 1,500 feet for that end of a runway other than a utility runway with only visual approaches;
   iii. 2,000 feet for that end of a utility runway with a nonprecision instrument approach;
   iv. 3,500 feet for that end of a nonprecision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;
   v. 4,000 feet for that end of a nonprecision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and
(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:
   (i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;
   (ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,
   (iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

[Amndt. 77-9, 36 FR 5970, Apr. 1, 1971; 36 FR 6741, Apr. 8, 1971]

Sec. 77.27 [Reserved]

Sec. 77.28 Military airport imaginary surfaces.

(a) Related to airport reference points. These surfaces apply to all military airports. For the purposes of this section a military airport is any airport operated by an armed force of the United States.

   (1) Inner horizontal surface. A plane is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

   (2) Conical surface. A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

   (3) Outer horizontal surface. A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) Related to runways. These surfaces apply to all military airports.

   (1) Primary surface. A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

   (2) Clear zone surface. A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

   (3) Approach clearance surface. An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500
feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) Transitional surfaces. These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-1, 30 FR 6713, May 18, 1965; Amdt. 77-9, 36 FR 5971, Apr. 1, 1971]

Sec. 77.29 Airport imaginary surfaces for heliports.

(a) Heliport primary surface. The area of the primary surface coincides in size and shape with the designated take-off and landing area of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) Heliport approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) Heliport transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

### APPENDIX G
### NON-RESIDENTIAL LAND USE DENSITIES

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td></td>
</tr>
<tr>
<td>Agricultural processing</td>
<td>One person per 200 sq. ft. gross floor area, plus one person per 1000 sq. ft. outdoor processing area</td>
</tr>
<tr>
<td>Agriculture – grazing and outdoor crops</td>
<td>One person per acre of gross land area</td>
</tr>
<tr>
<td>Agriculture – greenhouse culture, livestock raising</td>
<td>Ten persons per acre of gross land area</td>
</tr>
<tr>
<td><strong>Carwash</strong></td>
<td>Twenty persons</td>
</tr>
<tr>
<td>Self serve</td>
<td>Six persons</td>
</tr>
<tr>
<td><strong>Food &amp; Beverage Service, Indoor Entertainment</strong></td>
<td>One person per 60 sq. ft. gross floor area.</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td>Two persons per bed</td>
</tr>
<tr>
<td><strong>Indoor-Outdoor Uses</strong></td>
<td></td>
</tr>
<tr>
<td>Auto dismantling, scrap dealers, recycling centers</td>
<td>One person per 5000 sq. ft. of gross land area</td>
</tr>
<tr>
<td>Equipment rental, contractors’ yards, gas distributors – containerized,</td>
<td>One person per 1000 sq. ft. of gross land area</td>
</tr>
<tr>
<td>government agency corporation yards</td>
<td></td>
</tr>
<tr>
<td>Service stations</td>
<td>One person per 500 sq. ft. of gross land area</td>
</tr>
<tr>
<td><strong>Laboratories</strong></td>
<td>One person per 200 sq. ft. gross floor area</td>
</tr>
<tr>
<td><strong>Libraries and Museums</strong></td>
<td>One person per 50 sq. ft. gross floor area</td>
</tr>
<tr>
<td><strong>Manufacturing</strong></td>
<td>One person per 200 sq. ft. gross floor area, plus one person per 1000 sq. ft. outdoor manufacturing or storage area</td>
</tr>
<tr>
<td><strong>Offices</strong></td>
<td>One person per 200 sq. ft. gross floor area, plus one person per 10 sq. ft. of floor area of meeting rooms intended for use by the general public; if it is unknown whether meeting rooms will be included, one person per 100 sq. ft. gross floor area</td>
</tr>
<tr>
<td><strong>Outdoor Entertainment</strong></td>
<td></td>
</tr>
<tr>
<td>Stadiums</td>
<td>One person per seat or per 10 sq. ft. of spectator area</td>
</tr>
<tr>
<td>Swimming pools (public)</td>
<td>One person for each 70 sq. ft. of pool surface</td>
</tr>
<tr>
<td>All other</td>
<td>One person per 300 sq. ft. outdoor use area</td>
</tr>
<tr>
<td><strong>Public Assembly Uses</strong></td>
<td>One person per seat or per 12 sq. ft. of gross floor area</td>
</tr>
<tr>
<td><strong>Residential Uses</strong></td>
<td>Residential use – non-residential density does not apply</td>
</tr>
<tr>
<td><strong>Retail Sales</strong></td>
<td>One person per 300 sq. ft. gross floor area, plus one person per 1000 sq. ft. outdoor sales/storage area</td>
</tr>
<tr>
<td><strong>Schools</strong></td>
<td>One person per 45 sq. ft. gross floor area</td>
</tr>
<tr>
<td><strong>Service Uses</strong></td>
<td>One person per 200 sq. ft. gross floor area</td>
</tr>
<tr>
<td>Type of Use</td>
<td>Density</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Transient Lodgings</strong></td>
<td></td>
</tr>
<tr>
<td>Hotels, motels, bed and breakfasts</td>
<td>1.8 persons per room or group of rooms to be occupied as a suite; plus one person per 60 sq. ft. floor area of any restaurants, coffee shops, bars, or night clubs; plus one person per 10 sq. ft. of floor area of meeting rooms</td>
</tr>
<tr>
<td>Hostels</td>
<td>One person 100 sq. ft. gross floor area</td>
</tr>
<tr>
<td><strong>Transportation Uses</strong></td>
<td></td>
</tr>
<tr>
<td>Warehousing, mini-storage, moving company</td>
<td>One person per 200 sq. ft. gross floor area (excluding garage), plus one person for 700 sq. ft. enclosed garage</td>
</tr>
<tr>
<td>Wholesaling and mail-order houses</td>
<td>One person per 300 sq. ft. gross floor area, plus one person per 1000 sq. ft. outdoor sales/storage area</td>
</tr>
<tr>
<td>Use Category</td>
<td>Specific Uses Included</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Food and Beverage</strong></td>
<td>Amusement arcades (video games)</td>
</tr>
<tr>
<td></td>
<td>Bars, taverns</td>
</tr>
<tr>
<td></td>
<td>Catering services</td>
</tr>
<tr>
<td></td>
<td>Hot tubs – commercial use</td>
</tr>
<tr>
<td></td>
<td>Nightclubs, discotheques</td>
</tr>
<tr>
<td></td>
<td>Restaurants, sandwich shops, food take-out, etc.</td>
</tr>
<tr>
<td></td>
<td>Skating rinks</td>
</tr>
<tr>
<td><strong>Indoor-Outdoor Uses</strong></td>
<td>Convalescent hospitals</td>
</tr>
<tr>
<td></td>
<td>Hospitals</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td>Convalescent hospitals</td>
</tr>
<tr>
<td></td>
<td>Hospitals</td>
</tr>
<tr>
<td><strong>Hotels</strong></td>
<td>Bed and breakfast inns</td>
</tr>
<tr>
<td></td>
<td>Hotels and motels</td>
</tr>
<tr>
<td><strong>Indoor-Outdoor Uses</strong></td>
<td>Auto dismantling, scrap dealers, recycling centers</td>
</tr>
<tr>
<td></td>
<td>Equipment rental</td>
</tr>
<tr>
<td></td>
<td>Contractors’ yards</td>
</tr>
<tr>
<td></td>
<td>Gas distributors – containerized</td>
</tr>
<tr>
<td></td>
<td>Government agency corporation yards</td>
</tr>
<tr>
<td></td>
<td>Service stations</td>
</tr>
<tr>
<td><strong>Laboratories</strong></td>
<td>Laboratories – medical or analytical</td>
</tr>
<tr>
<td></td>
<td>Research and development laboratories</td>
</tr>
<tr>
<td><strong>Manufacturing Uses</strong></td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Laundry/dry cleaner: cleaning plant</td>
</tr>
<tr>
<td></td>
<td>Tallow works</td>
</tr>
<tr>
<td></td>
<td>Tire recapping</td>
</tr>
<tr>
<td><strong>Offices</strong></td>
<td>Government offices and meeting rooms</td>
</tr>
<tr>
<td></td>
<td>Offices – contractors</td>
</tr>
<tr>
<td></td>
<td>Offices – professional, other than medical or dental</td>
</tr>
<tr>
<td></td>
<td>Organizations offices and meeting rooms</td>
</tr>
<tr>
<td></td>
<td>Utility companies: engineering and administrative offices</td>
</tr>
<tr>
<td><strong>Outdoor Entertainment</strong></td>
<td>Amusement parks, fairgrounds</td>
</tr>
<tr>
<td></td>
<td>Athletic fields, game courts</td>
</tr>
<tr>
<td></td>
<td>Circus, carnival, fair, festival, parade</td>
</tr>
<tr>
<td></td>
<td>Drive-in theatres</td>
</tr>
<tr>
<td><strong>Public Assembly Uses</strong></td>
<td>Auditoriums, convention/exhibit halls</td>
</tr>
<tr>
<td></td>
<td>Churches, synagogues, temples, etc.</td>
</tr>
<tr>
<td></td>
<td>Community meeting rooms</td>
</tr>
<tr>
<td></td>
<td>Mortuaries</td>
</tr>
<tr>
<td></td>
<td>Theatres</td>
</tr>
<tr>
<td><strong>Retail Sales</strong></td>
<td>Feed stores and farm supply stores</td>
</tr>
<tr>
<td></td>
<td>Retail sales – outdoor sales of building and landscape materials (lumberyards, nurseries)</td>
</tr>
<tr>
<td></td>
<td>Retail sales – indoor sales of building materials and gardening supplies (floor and wall coverings, stores, etc.)</td>
</tr>
<tr>
<td></td>
<td>Retail sales – appliances, furniture and furnishings, musical instruments, data processing equipment, business, office, and medical equipment, catalog stores, sporting goods and outdoor supplies</td>
</tr>
<tr>
<td></td>
<td>Retail sales and repair of bicycles</td>
</tr>
<tr>
<td></td>
<td>Retail sales and rentals – autos, trucks, RVs, motorcycles, trailers, boats, aircraft, motorhomes</td>
</tr>
<tr>
<td></td>
<td>Retail sales – auto parts, accessories (including tires and/or batteries) as a principle use</td>
</tr>
<tr>
<td></td>
<td>Retail sales – convenience markets</td>
</tr>
<tr>
<td>Use Category</td>
<td>Specific Uses Included</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Retail sales – groceries, liquor and specialized foods (bakery, meats, dairy items, etc.)</td>
</tr>
<tr>
<td></td>
<td>Retail sales – general merchandise (drug, discount, department, and variety stores)</td>
</tr>
<tr>
<td></td>
<td>Retail sales – neighborhood grocery market</td>
</tr>
<tr>
<td></td>
<td>Retail sales – specialties (shoe stores, clothing, stores, book/record/video stores, toy stores, stationery stores, gift shops) and rentals</td>
</tr>
<tr>
<td></td>
<td>Warehouse (&quot;big box&quot;) stores</td>
</tr>
<tr>
<td>Residential Uses</td>
<td>Boarding/rooming houses; dormitories</td>
</tr>
<tr>
<td></td>
<td>Caretaker's quarters</td>
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<tr>
<td></td>
<td>Convents and monasteries</td>
</tr>
<tr>
<td></td>
<td>Dwellings</td>
</tr>
<tr>
<td></td>
<td>Fraternities and sororities</td>
</tr>
<tr>
<td></td>
<td>Homeless shelters</td>
</tr>
<tr>
<td></td>
<td>Mobile home parks</td>
</tr>
<tr>
<td>Service Uses</td>
<td>Advertising and related services (graphic design, writing, mailing, addressing, etc.)</td>
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<tr>
<td></td>
<td>Ambulance services</td>
</tr>
<tr>
<td></td>
<td>Animal hospitals, boarding and grooming (large or small animals)</td>
</tr>
<tr>
<td></td>
<td>Athletic and health clubs, gymnasiums, fitness centers, tanning centers</td>
</tr>
<tr>
<td></td>
<td>Auto repair and related services (body, brake, transmissions, muffler shops, painting, etc.)</td>
</tr>
<tr>
<td></td>
<td>Banks and savings and loans</td>
</tr>
<tr>
<td></td>
<td>Broadcast studios</td>
</tr>
<tr>
<td></td>
<td>Barbers, hairstylists, manicurists</td>
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<tr>
<td></td>
<td>Building and landscape maintenance services</td>
</tr>
<tr>
<td></td>
<td>Cemeteries, mausoleums, columbariums</td>
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<tr>
<td></td>
<td>Computer services</td>
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<tr>
<td></td>
<td>Credit reporting and collecting</td>
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<tr>
<td></td>
<td>Credit unions and finance companies</td>
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<tr>
<td></td>
<td>Delivery and postal services</td>
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<tr>
<td></td>
<td>Detective and security services</td>
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<tr>
<td></td>
<td>Exterminators</td>
</tr>
<tr>
<td></td>
<td>Employment agencies</td>
</tr>
<tr>
<td></td>
<td>Florists</td>
</tr>
<tr>
<td></td>
<td>Insurance service – local</td>
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<td></td>
<td>Insurance service – regional office</td>
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<tr>
<td></td>
<td>Offices – medical or dental</td>
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<tr>
<td></td>
<td>Photocopy services</td>
</tr>
<tr>
<td></td>
<td>Pharmacies – prescription drugs only</td>
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<tr>
<td></td>
<td>Photofinishing – retail</td>
</tr>
<tr>
<td></td>
<td>Photofinishing – wholesale; blueprinting and microfilming services</td>
</tr>
<tr>
<td></td>
<td>Photographic studios</td>
</tr>
<tr>
<td></td>
<td>Police and fire stations and training facilities</td>
</tr>
<tr>
<td></td>
<td>Pool halls and billiard parlors</td>
</tr>
<tr>
<td></td>
<td>Post offices</td>
</tr>
<tr>
<td></td>
<td>Printing and publishing</td>
</tr>
<tr>
<td></td>
<td>Refuse hauling, septic tank/portable toilet services</td>
</tr>
<tr>
<td></td>
<td>Repair service – small household appliances, locksmiths, seamstresses, shoe repair</td>
</tr>
<tr>
<td></td>
<td>Repair service – large appliances, electrical equipment, power tools, saw sharpening</td>
</tr>
<tr>
<td></td>
<td>Laundry/dry cleaner: pick-up point or office</td>
</tr>
<tr>
<td></td>
<td>Laundry/dry cleaner: self-service</td>
</tr>
<tr>
<td></td>
<td>Secretarial and related services (court reporting, stenography, typing, phone answering)</td>
</tr>
<tr>
<td></td>
<td>Telegraph offices</td>
</tr>
<tr>
<td></td>
<td>Ticket/travel agencies</td>
</tr>
<tr>
<td></td>
<td>Title companies</td>
</tr>
<tr>
<td></td>
<td>Utility companies: customer account services</td>
</tr>
<tr>
<td>Transportation Uses</td>
<td>Bus stations</td>
</tr>
<tr>
<td></td>
<td>Railroad yards, stations, crew facilities</td>
</tr>
<tr>
<td></td>
<td>Trucking/taxi services</td>
</tr>
</tbody>
</table>
### Table I-1
**Second Public Meeting**  
**Summary Of Public Written And Verbal Comments**

<table>
<thead>
<tr>
<th>Comment Category</th>
<th>Number Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-standard traffic pattern, fly-over noise to north from touch and go</td>
<td>1</td>
</tr>
<tr>
<td>Touch and go noise to the south but noise is mostly from jets</td>
<td>1</td>
</tr>
<tr>
<td>Pilots could throttle back to reduce noise (as soon as they reach proper altitude)</td>
<td>1</td>
</tr>
<tr>
<td>Noise Exposure Maps do not included touch and go flyovers</td>
<td>1</td>
</tr>
<tr>
<td>Noise abatement procedures should be mandatory</td>
<td>1</td>
</tr>
<tr>
<td>Prohibit touch and go traffic</td>
<td>3</td>
</tr>
<tr>
<td>Low flying medic helicopters are intolerably loud</td>
<td>1</td>
</tr>
<tr>
<td>Consider PAR 2000 Recommendations and include or provide rationale for not including</td>
<td>1</td>
</tr>
<tr>
<td>Check planes for sound</td>
<td>1</td>
</tr>
<tr>
<td>When someone buys a house they should be told not just that they are near an airport, but how much air traffic they can expect</td>
<td>1</td>
</tr>
<tr>
<td>Many complaints are not shown in the areas on the charts. There is a disconnect between numbers and reality.</td>
<td>3</td>
</tr>
<tr>
<td>Low flying helicopters/small aircrafts are noisy</td>
<td>10</td>
</tr>
<tr>
<td>Cannot enjoy outside</td>
<td>1</td>
</tr>
<tr>
<td>Why are helicopters allowed to fly so low?</td>
<td>1</td>
</tr>
<tr>
<td>Who enforces the rules and why aren’t they fined?</td>
<td>2</td>
</tr>
<tr>
<td>Touch and go traffic is bothersome/limit touch and go traffic (make planes fly out to sea before turning right or left)</td>
<td>5</td>
</tr>
<tr>
<td>Jets taking off in the middle of the night (ex. 11:00 am, 1:30 am, 4:00 am, 5:00 am, 6:00 am)</td>
<td>4</td>
</tr>
<tr>
<td>Designate quiet hours</td>
<td>2</td>
</tr>
<tr>
<td>What can the community do to alleviate situation?</td>
<td>1</td>
</tr>
<tr>
<td>Airplanes may not be taking required routes during take-off and landing</td>
<td>2</td>
</tr>
<tr>
<td>Complaints fall on deaf ears</td>
<td>1</td>
</tr>
<tr>
<td>Planes are not abiding by noise abatement procedures (approaches)</td>
<td>2</td>
</tr>
<tr>
<td>Video cameras could be used to track noise and plane identifications to fine violators</td>
<td>2</td>
</tr>
<tr>
<td>Airplane noise is worse during the weekends (as compared to noise during the week)</td>
<td>1</td>
</tr>
<tr>
<td>Limit the amount of small aircraft taking off from the airport</td>
<td>3</td>
</tr>
<tr>
<td>Comment Category</td>
<td>Number Received</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Increase minimum altitude of all small aircraft</td>
<td>2</td>
</tr>
<tr>
<td>Require small aircraft to install noise abatement devices or require aircraft</td>
<td>2</td>
</tr>
<tr>
<td>without noise abatement devices to fly at a higher altitude than aircraft with</td>
<td></td>
</tr>
<tr>
<td>noise abatement devices.</td>
<td></td>
</tr>
<tr>
<td>Vary the flight paths throughout different neighborhoods</td>
<td>1</td>
</tr>
<tr>
<td>Take complaints seriously and visit neighborhoods</td>
<td>1</td>
</tr>
<tr>
<td>Randomly select data daily and fine offenders of altitude requirements</td>
<td>1</td>
</tr>
<tr>
<td>Develop/Implement a system that identifies aircraft flying at altitudes that</td>
<td>1</td>
</tr>
<tr>
<td>are too low</td>
<td></td>
</tr>
<tr>
<td>Pilot education</td>
<td>1</td>
</tr>
<tr>
<td>Quality of life</td>
<td>1</td>
</tr>
<tr>
<td>Prohibit jets</td>
<td>1</td>
</tr>
<tr>
<td>Planes are a noise problem</td>
<td>1</td>
</tr>
<tr>
<td>Do not like same plans circling the air repeatedly</td>
<td>2</td>
</tr>
<tr>
<td>Weighted data should never be considered the same or equivalent to non-weighted</td>
<td>1</td>
</tr>
<tr>
<td>data</td>
<td></td>
</tr>
<tr>
<td>Were the two types of data from same source?</td>
<td>1</td>
</tr>
<tr>
<td>How much error was in the data?</td>
<td>1</td>
</tr>
<tr>
<td>Show noise comparisons of other noise sources</td>
<td>1</td>
</tr>
<tr>
<td>Would like to see graphics that depict the outliers</td>
<td>1</td>
</tr>
<tr>
<td>Would like to see graphic that shows the white noise that disturbs the</td>
<td>1</td>
</tr>
<tr>
<td>surrounding public</td>
<td></td>
</tr>
<tr>
<td>Can you show if there is a correlation between economic success of the airport</td>
<td>1</td>
</tr>
<tr>
<td>and the increase in noise?</td>
<td></td>
</tr>
<tr>
<td>Display noise levels as non-weighted data in a bar graph</td>
<td>1</td>
</tr>
<tr>
<td>Develop a noise scale</td>
<td>1</td>
</tr>
<tr>
<td>Develop a timeline with regard to changes in the airport environment and noise</td>
<td>1</td>
</tr>
<tr>
<td>level</td>
<td></td>
</tr>
<tr>
<td>Noise absorption/topography/buildings/vegetation</td>
<td>1</td>
</tr>
<tr>
<td>Show noise by altitude layers</td>
<td>1</td>
</tr>
<tr>
<td>Noise travel and vortices</td>
<td>1</td>
</tr>
<tr>
<td>Planes flying too low</td>
<td>1</td>
</tr>
<tr>
<td>Wants independent review of study</td>
<td>1</td>
</tr>
<tr>
<td>Require phasing out of older, louder planes</td>
<td>1</td>
</tr>
<tr>
<td>Recommend mandatory flight patterns</td>
<td>1</td>
</tr>
<tr>
<td>Comment Category</td>
<td>Number Received</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Airport fees to sightseeing companies</td>
<td>1</td>
</tr>
<tr>
<td>Recommends formation of Citizen Advisory Committee</td>
<td>1</td>
</tr>
<tr>
<td>Reestablish the Office of Noise Abatement and Control in the EPA</td>
<td>1</td>
</tr>
<tr>
<td>Protect future homebuyers from airport noise</td>
<td>1</td>
</tr>
<tr>
<td>Improve disclosure for future residents</td>
<td>1</td>
</tr>
<tr>
<td>Improve awareness of land use and aviation</td>
<td>1</td>
</tr>
<tr>
<td>Do not change flight patterns because of Bressi Ranch</td>
<td>1</td>
</tr>
<tr>
<td>Include that the Study does not include safety</td>
<td>1</td>
</tr>
<tr>
<td>Add that CNEL are not intended for layperson to use to determine noise levels</td>
<td>1</td>
</tr>
<tr>
<td>Discuss historical fatal mid-air collision</td>
<td>1</td>
</tr>
<tr>
<td>Discuss that homes built within 1 mile of the airport are not considered compatible by the FAA</td>
<td>1</td>
</tr>
<tr>
<td>Recommend overflights easements as Bressi Ranch mitigation</td>
<td>1</td>
</tr>
<tr>
<td>Improve full disclosure and add 45, 50, and 55 db noise contours</td>
<td>1</td>
</tr>
<tr>
<td>Show helicopter arrival/departure paths</td>
<td>1</td>
</tr>
<tr>
<td>Use Wind 245 at 8kts for noise model, not Wind 212 at 4kts</td>
<td>1</td>
</tr>
<tr>
<td>Interview local helicopter flight school because operations may be expanding and may be more than a minor change in helicopter fleet</td>
<td>1</td>
</tr>
<tr>
<td>Recommend review and ensure helicopter flights tracks are accurate</td>
<td>1</td>
</tr>
<tr>
<td>Believe that operation estimates are too low</td>
<td>1</td>
</tr>
<tr>
<td>Increase public awareness</td>
<td>1</td>
</tr>
<tr>
<td>Network through the local user groups for more information</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>103</strong></td>
</tr>
</tbody>
</table>
February 11, 2005

David Kessler
Federal Aviation Administration
Western-Pacific Region
15000 Aviation Blvd.
Lawndale, CA 90261

Dear Mr. Kessler:

FAR PART 150 NOISE EXPOSURE MAPS – SUBMITTAL FOR FAA COMPLIANCE DETERMINATION

Enclosed are five (5) copies of the revised Noise Exposure Maps (NEMs), Volume I, for McClellan-Palomar Airport. These NEMs are submitted under the provisions of Title I of the Aviation Safety and Noise Abatement Act of 1979 (ASNA) and 14 CFR Part 150 and address your comments of November 22, 2004.

The County of San Diego, as owner and operator of McClellan-Palomar Airport, is submitting these NEMs for appropriate Federal Aviation Administration (FAA) determinations.

Should you have any questions regarding the enclosed document, please do not hesitate to contact me at (619) 956-4839. We appreciate your assistance in this matter.

Sincerely,

PETER DRINKWATER
Airport Director

PD:jk

Enclosures
April 26, 2005

Mr. Peter Drinkwater  
Airport Director  
County of San Diego  
Department of Public Works  
5555 Overland Avenue, Suite 2188  
San Diego, CA 92123-1295

Dear Mr. Drinkwater:

McClellan-Palomar Airport  
Acceptance of Noise Exposure Maps

This letter is to notify you that the Federal Aviation Administration (FAA) has evaluated and accepted the Noise Exposure Maps and supporting documentation transmitted by your letter dated February 11, 2005, for the above referenced airport. In accordance with Section 103(a)(1) of the Aviation Safety and Noise Abatement Act of 1979 (the Act), we have determined that:

1. The 2004 Community Noise Equivalent Level (CNEL) noise contours and supporting documentation meet the requirements for the current Noise Exposure Map as of the date of submission as set forth in 14 Code of Federal regulations (CFR) Part 150, Airport Noise Compatibility Planning, Section 150.21(1), and are accordingly accepted under this Part.

2. The projected 2009 aircraft operations, the 2009 (Future) CNEL contours and supporting documentation are accepted as the description of the future conditions as set forth in Part 150, and are accordingly accepted under this Part.

FAA's acceptance of your Noise Exposure Maps is limited to the determination that the maps were developed in accordance with the procedures contained in Appendix A of Part 150. Such acceptance does not constitute approval of your data, information or plans.

The FAA will publish a notice in the Federal Register announcing the acceptance of the Noise Exposure Maps for McClellan-Palomar Airport. The FAA's acceptance of these Noise Exposure Maps under Part 150 in no way approves or endorses a Noise Compatibility Program, potential related federal funding of projects identified in such a program, or any related operating restrictions at the subject airport.

Should any questions arise concerning the precise relationship of specific properties to Noise Exposure Contours depicted on your Noise Exposure Maps, you should note that the FAA will not be involved in any
way in the determination of relative locations of specific properties with regard to the depicted noise contours, or in interpreting the maps to resolve questions concerning, for example, which properties should be covered by the provision of Section 107 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA’s acceptance of your Noise Exposure Maps. Therefore, the responsibility for the detailed overlaying of noise contours onto the maps depicting properties on the surface rests exclusively with you the airport operator, or those public agencies and planning agencies with which consultation is required under Section 103 of the Act. The FAA relies on the certification by you under 150.21 of FAR Part 150, that the statutorily required consultation has been accomplished.

Your notice of this determination, and the availability of the Noise Exposure Maps, which when published at least three (3) times in a newspaper of general circulation in the county where the affected properties are located, will satisfy the requirements of Section 107 of the Act. A sample publication announcement has been enclosed for your use.

Your attention is called to the requirements of Section 150.21(d) of Part 150, involving the prompt preparation and submission of revisions to these maps, if any actual or proposed change in the operation of the subject airport might create any substantial, new noncompatible land use in any areas depicted on the maps.

Thank you for your continued interest in Noise Compatibility Planning.

Sincerely,

Mark A. McClardy
Manager, Airports Division

Enclosure

cc: APP-600
DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

Noise Exposure Map Notice for McClellan-Palomar Airport, Carlsbad, CA

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice.

SUMMARY: The Federal Aviation Administration (FAA) announces its determination that the noise exposure maps submitted by the County of San Diego for McClellan-Palomar Airport under the provisions of 49 U.S.C. 47501 et. seq. (Aviation Safety and Noise Abatement Act) and 14 CFR part 150 are in compliance with applicable requirements.

EFFECTIVE DATE: The effective date of the FAA’s determination on the noise exposure maps is April 26, 2005.

FOR FURTHER INFORMATION CONTACT: Peter Ciesla, Federal Aviation Administration, Western Pacific Region, Airports Division, PO Box 92007, Los Angeles, California, 90009-2007, Telephone: (310) 725-3633.

SUPPLEMENTARY INFORMATION: This notice announces that the FAA finds that the noise exposure maps submitted by McClellan-Palomar Airport are in compliance with applicable requirements of Part 150, effective April 26, 2005. Under 49 U.S.C. 47503 of the Aviation Safety and Noise Abatement Act (hereinafter referred to as “the Act”), an airport operator may submit to the FAA noise exposure maps which meet applicable regulations and which depict non-compatible uses of property. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport. An airport operator who has submitted noise exposure maps that are found by FAA to be in compliance with the requirements of Federal Aviation Regulations (FAR), Part 150, promulgated pursuant to the Act, may submit a noise compatibility program for FAA approval which set forth the measures the operator has taken or proposes to take to reduce existing non-compatible uses and prevent the introduction of additional non-compatible uses.

The FAA has completed its review of the noise exposure maps and accompanying documentation submitted by the County of San Diego. The documentation that constitutes the “noise exposure maps” as defined in section 150.7 of Part 150 includes: Figure 5–4, Existing Conditions (2004) Noise Exposure Map and Figure 6–1, Future Condition (2009) Noise Exposure Map. The Noise Exposure Maps contain current and forecast information including the depiction of the airport and its boundaries, the runway configurations, land uses such as residential, commercial/travel/recreational, industrial/manufacturing, schools, government services, open space, and unplanned areas, and also those areas within the Community Noise Equivalent Level (CNEL) 60, 65, 70 and 75 noise contours. Estimates for the number of people and residences, within these contours for the year 2004 are shown in Table 5–12. Estimates of the future number of people and residences within the 2009 noise contours are shown in Table 6–7. Flight tracks for the existing and the five-year forecast Noise Exposure Maps are found in Figures 5–1, 5–2, and 5–3. The type and frequency of aircraft operations (including nighttime operations) are found in Table 5–1 for the existing conditions (2004) and Table 6–1 for the future conditions (2009). The FAA has determined that these noise exposure maps and accompanying documentation are in compliance with applicable requirements. This determination is effective on April 26, 2005.

FAA’s determination on an airport operator’s noise exposure maps is limited to a finding that the maps were developed in accordance with the procedures contained in appendix A of FAR Part 150. Such determination does not constitute approval of the applicant’s data, information or plans, or a commitment to approve a noise compatibility program or to fund the implementation of that program. If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a noise exposure map submitted under section 47503 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise exposure maps to resolve questions concerning, for example, which properties should be covered by the provisions of section 47506 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA’s review of noise exposure maps.

Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator that submitted those maps, or with those public agencies and planning agencies with which consultation is required under section 47503 of the Act. The FAA has relied on the certification by the airport operator, under section 150.21 of FAR Part 150, that the statutorily require consultation has been accomplished.

Copies of the full noise exposure map documentation and of the FAA’s evaluation of the maps are available for examination at the following locations:

Federal Aviation Administration, Community and Environmental Needs Division, APP–600, 800 Independence Avenue, SW., Washington, DC 20591.
Federal Aviation Administration, Western-Pacific Region, Airports Division, Room 3012, 15000 Aviation Boulevard, Hawthorne, California 90261.
Mr. Peter Drinkwater, Airport Director, County of San Diego, Department of Public Works, 5555 Overland Avenue, Suite 2188, San Diego, CA 92123–1295.

Questions may be directed to the individual named above under the heading FOR FURTHER INFORMATION CONTACT.

Issued in Hawthorne, California on April 26, 2005.

Mia Paredes Ratcliff, Acting Manager, Airports Division, AWP–600, Western-Pacific Region.

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

Notice of Intent To Rule on Application 05–05–C–00–DAY To impose and Use the Revenue From a Passenger Facility Charge (PFC) at Dayton International Airport, Dayton, OH

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the
Affidavit of Publication

MCCLLENAN-PAOMAR AIRPORT
ATTN: DANIEL THOMPSON
2192 PALOMAR AIRPORT ROAD
CARLSBAD, CA 92011

STATE OF CALIFORNIA} ss.
County of San Diego}

The Undersigned, declares under penalty of perjury under the laws of the State of California: That....She is a resident of the County of San Diego. THAT....She is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and that ........She is not a party to, nor interested in the above entitled matter; that ....She is................ Chief Clerk for the publisher of .................

The San Diego Union-Tribune
a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following date, to-wit:
MARCH 23, 26 and APRIL 04, 2007

\[Signature\]

Chief Clerk for the Publisher
STATE OF CALIFORNIA
County of San Diego

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of

North County Times

Formerly known as the Blade-Citizen and The Times-Advocate and which newspapers have been adjudicated newspapers of general circulation by the Superior Court of the County of San Diego, State of California, for the City of Oceanside and the City of Escondido, Court Decree number 171349, for the County of San Diego, that the notice of which the annexed is a printed copy (set in type not smaller than nonpariel), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

March 12th, 21st & 30th, 2007

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at SAN MARCOS California

This 30th, Day of March, 2007

Signature
Jane Allshouse
NORTH COUNTY TIMES
Legal Advertising
PAOMAR AIRPORT ADVISORY COMMITTEE  
2198 Palomar Airport Road  
Carlsbad, California 92008  
Phone: (760) 431-4646

MINUTES

THURSDAY, NOVEMBER 18, 2004

Chairperson Ramona Finnila called the meeting to order at 7:06 p.m. on November 18, 2004, in the Carlsbad City Council Chambers, 1200 Carlsbad Village Drive, Carlsbad, California.

MEMBERS PRESENT  
Chairperson Ramona Finnila  
Vice-Chairperson Tim Hutter  
John Christensen  
Robert Fuselier  
Ginna Reyes  
Howard Williams

MEMBERS ABSENT  
Chuck Collins  
Bob Gates  
Hugh Lyttleton  
Tom Ricotta

Members present did represent a quorum.

COUNTY STAFF PRESENT  
Floyd Best  
Olivier Brackett  
Dee Dee Phillips  
Willie Vasquez

ROLL CALL AND INTRODUCTIONS

APPROVAL OF MINUTES

The minutes for the month of October 2004 were approved.

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

There was no public comment.