

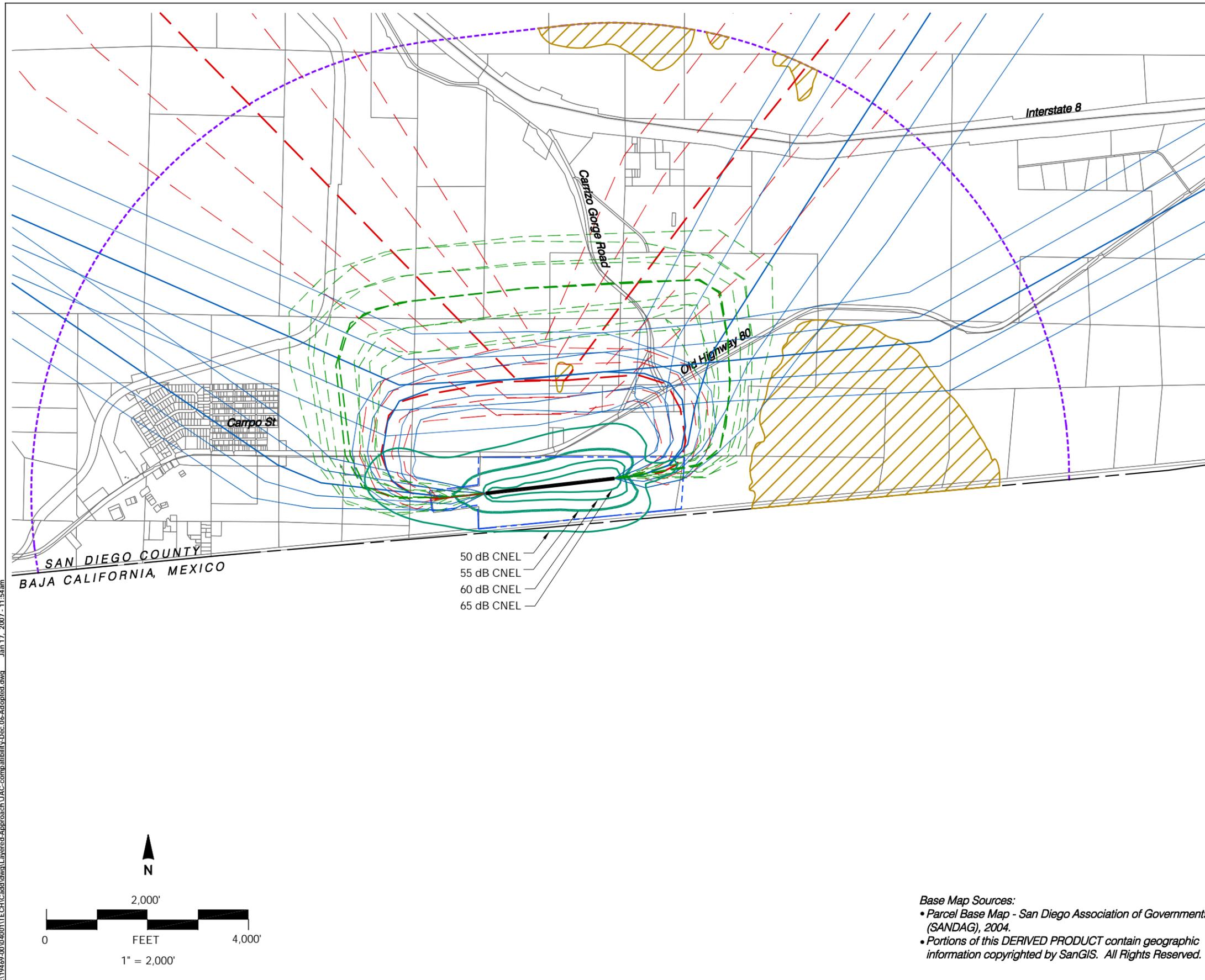
AIRPORT LAND USE COMMISSION  
SAN DIEGO COUNTY

**Jacumba Airport**  
**Land Use Compatibility Plan**  
*(Adopted December 2006)*

Source: Air Photo USA, February 2005

Exhibit JAC-9

**Airport Aerial**  
Jacumba Airport



**Legend**

**Boundary Lines**

- Airport Property Line
- Parcel Line

**Modeled Flight Tracks\***

- Primary Tracks**
  - Arrivals
  - Departures
  - Touch and Go
- Sub-Tracks**
  - Arrivals
  - Departures
  - Touch and Go

**Other Noise Compatibility Factors**

- FAR Part 77 Conical Surface Limits
- No Terrain Penetration of FAR Part 77 Surfaces

**Calculated Noise Contours\***

- 55 dB CNEL
  - 60 dB CNEL
  - 65 dB CNEL
- Future Average  
Annual Day  
(9 Operations)

**Notes**

\* Source: Harris Miller Miller & Hanson, Inc. (November 2004).



AIRPORT LAND USE COMMISSION  
SAN DIEGO COUNTY

**Jacumba Airport  
Land Use Compatibility Plan  
(Adopted December 2006)**

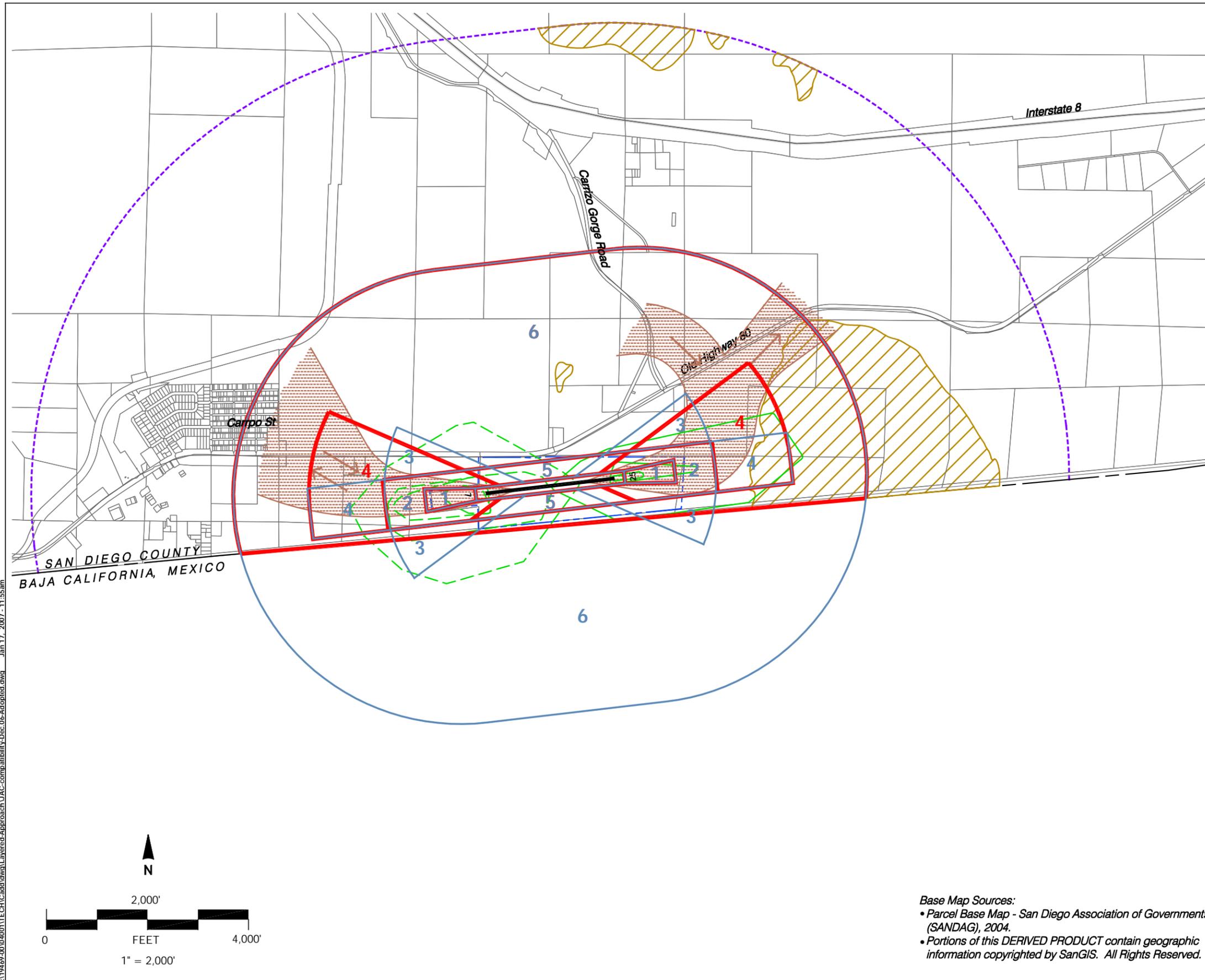
Exhibit JAC-10

**Compatibility Data:  
Noise**

**Base Map Sources:**

- Parcel Base Map - San Diego Association of Governments (SANDAG), 2004.
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- Legend**
- Boundary Lines**
- Airport Property Line
  - Parcel Line
- Safety Compatibility Factors**
- Runways  
Runway 7-25 = 2,508'
  - General Fixed Wing Aircraft Traffic Pattern Envelope (80% of aircraft overflights at approximately 1,000 feet or less above runway elevation estimated to occur within these limits).
  - FAR Part 77 Conical Surface Boundary
  - Terrain Penetration of FAR Part 77 Surfaces
- California Airport Land Use Planning Handbook Guidelines (2002)**
- Aircraft Approach Accident Risk Intensity Contours \* (Shown only for Landings from the East)
  - Aircraft Departure Accident Risk Intensity Contours \* (Shown only for Takeoffs to the West)
  - Generic Safety Zones - < 4,000' General Aviation Runway
- ALUC Policy Boundaries**
- Adjusted Safety Zones \*\*

**Notes**

\* Fixed-wing general aviation aircraft accidents - runway length < 4,000 feet.

\*\* Adjusted for:

- Very short runway
- No arrivals from or departures to south
- Nonstandard arrival / departure routes
- Infrequent use of closed traffic pattern
- High terrain on east
- Low volume of operations



AIRPORT LAND USE COMMISSION  
SAN DIEGO COUNTY

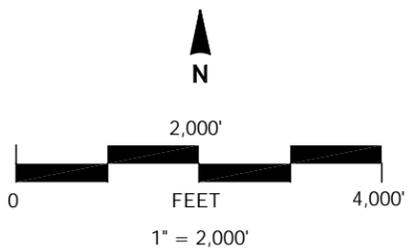
**Jacumba Airport  
Land Use Compatibility Plan  
(Adopted December 2006)**

Exhibit JAC-11

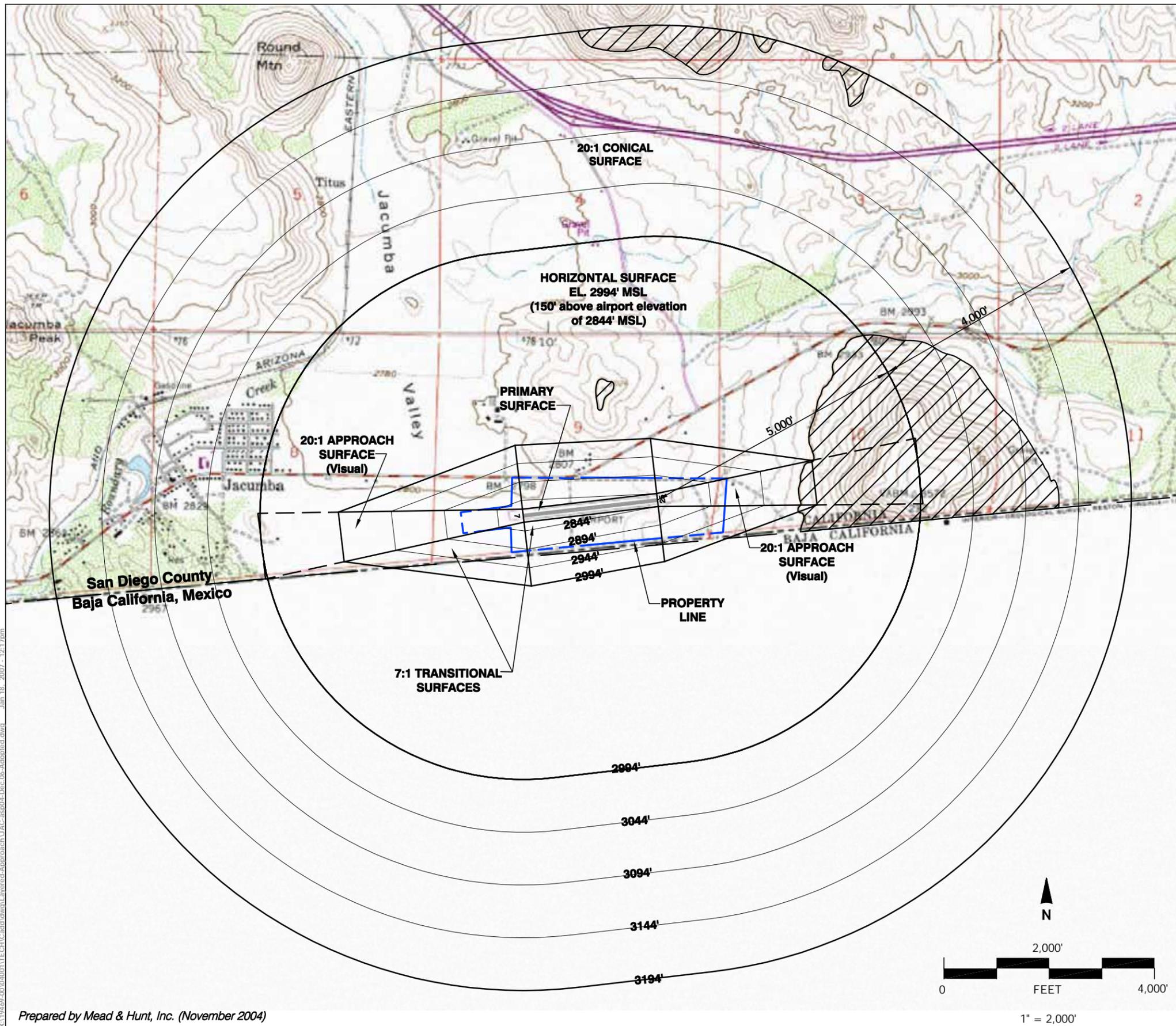
**Compatibility Data:  
Safety**

**Base Map Sources:**

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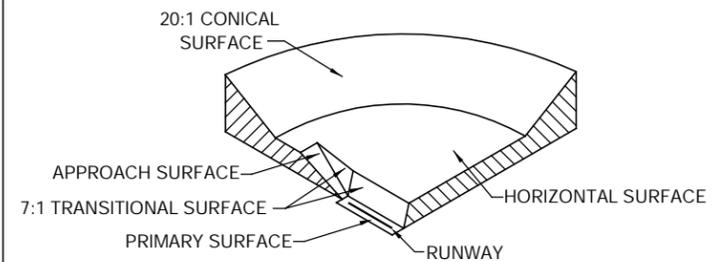


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RUNWAY END DATA			
APPROACH END OF RUNWAY:		7	25
AIRPORT REFERENCE CODE	Existing	B-1 (Small)	
	Future	No Change	
APPROACH TYPE [FAR Part 77 Category]	Existing	Visual [A]	Visual [A]
	Future	No Change	No Change
APPROACH VISIBILITY	Existing	1 Mile	1 Mile
	Future	No Change	No Change
APPROACH and LANDING AIDS	Visual	Existing	None
		Future	No Change
	Electronic	Existing	None
		Future	No Change
RUNWAY ELEVATIONS	Existing	2,820'	2,844'
	Future	No Change	No Change

SOURCE: Mead & Hunt, Inc. (November 2004); approved by California Department of Transportation, Division of Aeronautics on July 8, 2005 for land use purposes.



**TYPICAL FAR PART 77 SURFACES**

**Legend**

- Airspace Protection Surfaces
- FAR Part 77 Surfaces
- Airport Property Line
- Terrain Penetration of FAR Part 77 Surfaces

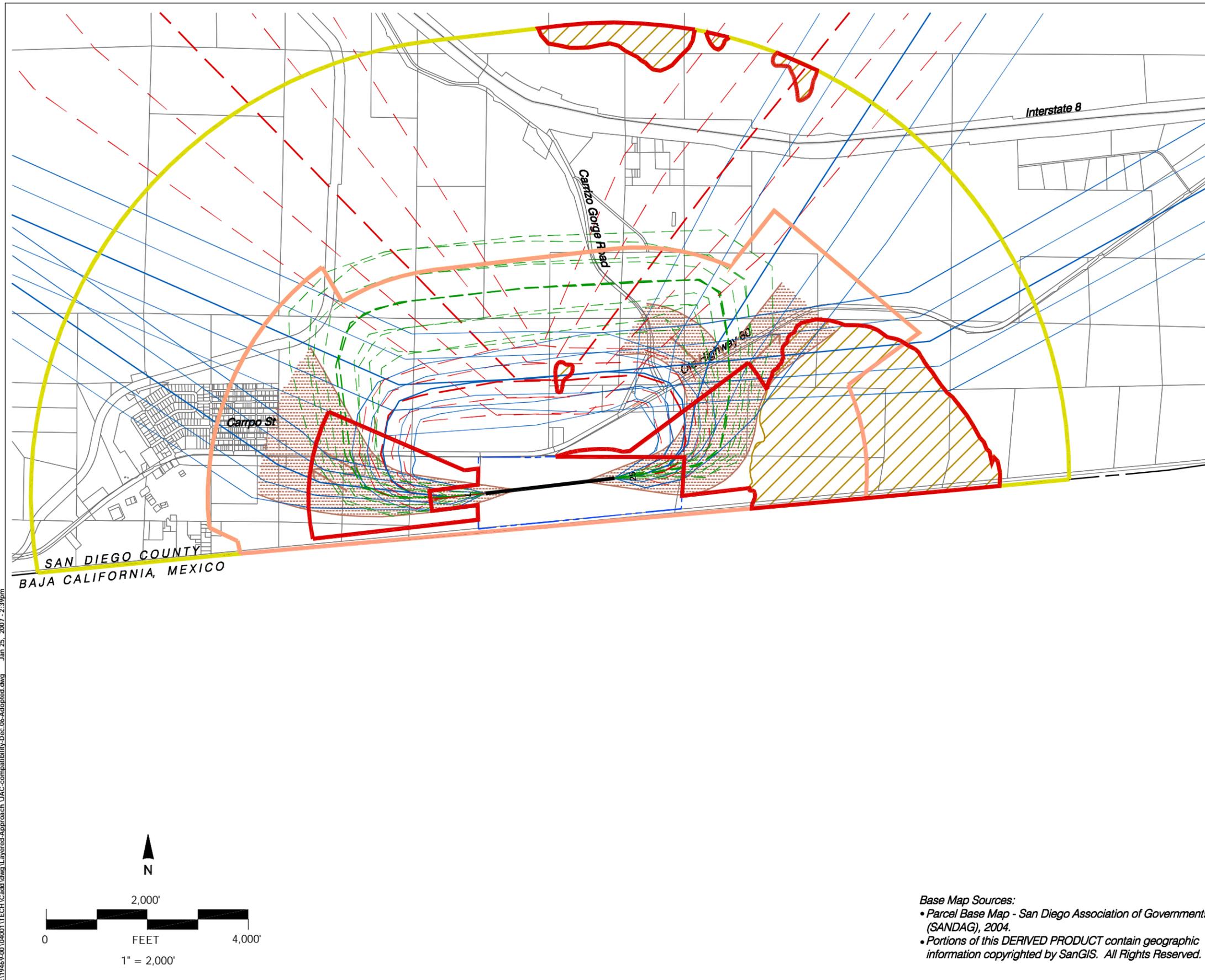
- Notes**
- Airport elevations in feet above mean sea level (MSL). Vertical datum in NGVD29 (add 2.651' for NAVD88).
  - Base Map: Jacumba USGS Topographic Map. Vertical datum in NGVD29 (add 2.651' for NAVD88).
  - Gravel Runway.



Exhibit JAC-12

**Compatibility Data: Airspace Protection**

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**Legend**

**Boundary Lines**

- Airport Property Line
- Parcel Line

**Modeled Flight Tracks\***

**Primary Tracks**

- Arrivals
- Departures
- Touch and Go

**Sub-Tracks**

- Arrivals
- Departures
- Touch and Go

**Overflight Factors**

- General Fixed Wing Aircraft Traffic Pattern Envelope (80% of aircraft overflights at approximately 1,000 feet or less above runway elevation estimated to occur within these limits).
- FAR Part 77 Conical Surface Limits
- Terrain Penetration of FAR Part 77 Surfaces

**ALUC Policy Boundaries**

- Avigation Easement Dedication
- Overflight Easement Dedication
- Disclosure in Real Estate Transaction

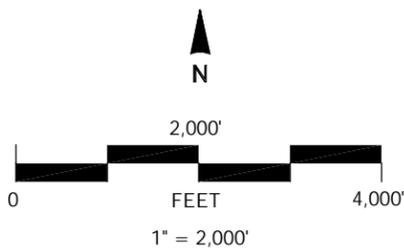
**Airport Influence Area**

- Review Area 1
- Review Area 2

**Notes**

\* Source: Harris Miller Miller & Hanson, Inc. (November 2004).

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**Base Map Sources:**

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AIRPORT LAND USE COMMISSION  
SAN DIEGO COUNTY

**Jacumba Airport  
Land Use Compatibility Plan  
(Adopted December 2006)**

Exhibit JAC-13

**Compatibility Data:  
Overflight**

# Appendices

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DEPARTMENT OF TRANSPORT

## State Laws Related to Airport Land Use Planning

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(as of August 2006)

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**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9—Aviation**  
**Part 1—State Aeronautics Act**  
**Chapter 4—Airports and Air Navigation Facilities**  
**Article 3.5—Airport Land Use Commission**

**21670. Creation; Membership; Selection**

- (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 for 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 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.
- (f) It is the intent of the Legislature to clarify that, for the purposes of this article, that special districts, school districts and community college districts are included among the local agencies that are subject to airport land use laws and other requirements of this article.

**21670.1. Action by Designated Body Instead of Commission**

- (a) Notwithstanding any provisions of this article, if the board of supervisors and the city selection committee of mayors in any 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) that does not include among its membership at least two members having 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 the 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 airport land use compatibility 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 airport land use compatibility plans.
    - (C) Adopt processes for the mediation of disputes arising from the preparation, adoption, and amendment of the airport land use compatibility plans.
    - (D) Adopt processes for the amendment of general and specific plans to be consistent with the airport land use compatibility plans.

- (E) Designate the agency that shall be responsible for the preparation, adoption, and amendment of each airport land use compatibility 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 airport land use compatibility 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 airport land use compatibility plans with the Division of Aeronautics under the California Aid to Airport Program (Chapter 4 (commencing with Section 4050) of Title 21 of the 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 airport land use compatibility 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 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. Application to Counties Having over 4 Million in Population**

- (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 airport land use compatibility 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 airport land use plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the plans are adopted.

## **21670.3 San Diego County**

- (a) Sections 21670 and 21670.1 do not apply to the county of San Diego. In that county, the San Diego County Regional Airport Authority, as established pursuant to Section 170002, is responsible for coordinating the airport planning of public agencies within the county and shall, on or before June 30, 2005, after reviewing the existing airport land use compatibility plan adopted pursuant to Section 21675, adopt an airport land use compatibility plan.
- (b) Any airport land use compatibility plan 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 San Diego County Regional Airport Authority adopts a plan prior to that date pursuant to subdivision (a).

## **21670.4. Intercounty Airports**

- (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 Planning Handbook and referenced in the airport land use compatibility 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. Airports Owned by a City, District, or County**

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) 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. Term of Office**

- (a) Except for the terms of office of the members of the first commission, the term of office for 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 that 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 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 airport land use compatibility 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 airport land use compatibility 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. Rules and Regulations**

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. Initiation of Proceedings for Creation by Owner of Airport**

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 therefore to the satisfaction of the board of supervisors.

**21674. Powers and Duties**

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 compatibility 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. Training of Airport Land Use Commission's Staff**

- (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 airport land use compatibility plans.
  - (2) The development of criteria for determining the airport influence area.
  - (3) The identification of essential elements which should be included in the airport land use compatibility 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 that the department determines to be appropriate to provide the commission staff and for which it determines there is a need for staff training and development.
- (c) The department may provide training and development programs for airport land 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 development of airport land use commission staff.

**21674.7. Airport Land Use Planning Handbook**

- (a) An airport land use commission that formulates, adopts or amends an airport land use compatibility 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.
- (b) It is the intent of the Legislature to discourage incompatible land uses near existing airports. Therefore, prior to granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building, it is the intent of the Legislature that local agencies shall be guided by 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, to the extent that the criteria has been incorporated into the plan

prepared by a commission pursuant to Section 21675. This subdivision does not limit the jurisdiction of a commission as established by this article. This subdivision does not limit the authority of local agencies to overrule commission actions or recommendations pursuant to Sections 21676, 21676.5, or 21677.

## **21675. Land Use Plan**

- (a) Each commission shall formulate an airport land use compatibility 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 airport land use compatibility 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, which reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility 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 airport land use compatibility 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 shall include, within its airport land use compatibility plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any military airport for all the purpose specified in subdivision (a). The airport land use compatibility plan shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport. This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.
- (c) The airport influence area 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 an airport land use compatibility 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. Adoption of Land Use Plan**

- (a) By June 30, 1991, each commission shall adopt the airport land use compatibility plan required pursuant to Section 21675, except that any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county shall adopt the airport land use compatibility plan on or before June 30, 1992.
- (b) Until a commission adopts an airport land use compatibility 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 that will be included or reasonably could be included within the airport land use compatibility plan. If the commission has not designated an airport influence area, 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 airport land use compatibility plan.
  - (2) There is a reasonable probability that the action, regulation, or permit will be consistent with the airport land use compatibility plan being prepared by the commission.
  - (3) There is little or no probability of substantial detriment to or interference with the future adopted airport land use compatibility plan if the action, regulation, or permit is ultimately inconsistent with the airport land use compatibility 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 airport land use compatibility 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 from the city's or county's decision to proceed with the action, regulation, or permit.
- (g) A commission may adopt rules and regulations that 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. Approval or Disapproval of Actions, Regulations, or Permits**

- (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 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 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. Review of Local General Plans**

- (a) Each local agency whose general plan includes areas covered by an airport land use compatibility 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 airport land use compatibility plan. If the plan or plans are inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its airport land use compatibility plans. The local agency may propose to 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 stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.
- (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, propose to 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. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

- (c) Each public agency owning any airport within the boundaries of an airport land use compatibility plan shall, prior to modification of its airport master plan, refer any 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, propose to 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. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.
- (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 airport land use compatibility plan.

### **21676.5. Review of Local Plans**

- (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 that 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 airport land use compatibility plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may propose to 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. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.
- (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. Marin County Override Provisions**

Notwithstanding the two-thirds vote required by 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. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public governing body. The public agency governing body shall include comments from the commission and the division in the public record of the final decision to overrule the commission, which may be adopted by a majority vote of the governing body.

## **21678. Airport Owner's Immunity**

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, or 21677 overrules 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 overrule the commission's action or recommendation.

Notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement does not exceed one million dollars (\$1,000,000), reimbursement shall be made from the State Mandates Claims Fund.

## **21679. Court Review**

- (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 compatibility 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, that 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 that 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 that 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 compatibility 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. Deferral of Court Review**

- (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 or 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 airport land use compatibility 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 compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility 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 compatibility 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 compatibility 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.

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9, Part 1**  
**Chapter 3—Regulation of Aeronautics**  
**(excerpts)**

**21402. Ownership; Prohibited Use of Airspace**

The ownership of the space above the land and waters of this State is vested in the several owners of the surface beneath, subject to the right of flight; provided, that any use of property in conformity with an original zone of approach of an airport shall not be rendered unlawful by reason of a change in such zone of approach.

**21403. Lawful Flight; Flight Within Airport Approach Zone**

- (a) Flight in aircraft over the land and waters of this state is lawful, unless at altitudes below those prescribed by federal authority, or unless conducted so as to be imminently dangerous to persons or property lawfully on the land or water beneath. The landing of an aircraft on the land or waters of another, without his or her consent, is unlawful except in the case of a forced landing or pursuant to Section 21662.1. The owner, lessee, or operator of the aircraft is liable, as provided by law, for damages caused by a forced landing.
- (b) The landing, takeoff, or taxiing of an aircraft on a public freeway, highway, road, or street is unlawful except in the following cases:
  - (1) A forced landing.
  - (2) A landing during a natural disaster or other public emergency if the landing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road, or street.
  - (3) When the landing, takeoff, or taxiing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road or street.

The prosecution bears the burden of proving that none of the exceptions apply to the act which is alleged to be unlawful.

- (c) The right of flight in aircraft includes the right of safe access to public airports, which includes the right of flight within the zone of approach of any public airport without restriction or hazard. The zone of approach of an airport shall conform to the specifications of Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration, Department of Transportation.

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9, Part 1**  
**Chapter 4—Airports and Air Navigation Facilities**  
**Article 2.7—Regulation of Obstructions**  
**(excerpts)**

**21655. Proposed Site for Construction of State Building Within Two Miles of Airport Boundary**

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

**21658. Construction of Utility Pole or Line in Vicinity of Aircraft Landing Area**

No public utility shall construct any pole, pole line, distribution or transmission tower, or tower line, or substation structure in the vicinity of the exterior boundary of an aircraft landing area of any airport open to public use, in a location with respect to the airport and at a height so as to constitute an obstruction to air navigation, as an obstruction is defined in accordance with Part 77 of the Federal Aviation Regulations, Federal Aviation Administration, or any corresponding rules or regulations of the Federal Aviation Administration, unless the Federal Aviation Administration has determined that the pole, line, tower, or structure does not constitute a hazard to air navigation. This section shall not apply to existing poles, lines, towers, or structures or to the repair, replacement, or reconstruction thereof if the original height is not materially exceeded and this section shall not apply unless just compensation shall have first been paid to the public utility by the owner of any airport for any property or property rights which would be taken or damaged hereby.

**21659. Hazards Near Airports Prohibited**

- (a) No person shall construct or alter any structure or permit any natural growth to grow at a height which exceeds the obstruction standards set forth in the regulations of the Federal Aviation Administration relating to objects affecting navigable airspace contained in Title 14 of the Code of

Federal Regulations, Part 77, Subpart C, unless a permit allowing the construction, alteration, or growth is issued by the department.

- (b) The permit is not required if the Federal Aviation Administration has determined that the construction, alteration, or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Subdivision (a) does not apply to a pole, pole line, distribution or transmission tower, or tower line or substation of a public utility.
- (c) Section 21658 is applicable to subdivision (b).

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9, Part 1, Chapter 4**  
**Article 3—Regulation of Airports**  
**(excerpts)**

**21661.5. City Council or Board of Supervisors and ALUC Approvals**

- (a) No political subdivision, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for such construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9, and acted upon by such commission in accordance with the provisions of such article.
- (b) A county board of supervisors or a city council may, pursuant to Section 65100 of the Government Code, delegate its responsibility under this section for the approval of plan for construction of new helicopter landing and takeoff areas, to the county or city planning agency.

**21664.5. Amended Airport Permits; Airport Expansion Defined**

- (a) An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of the section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.
- (b) As used in this section, “airport expansion” includes any of the following:
  - (1) The acquisition of runway protection zones, as defined in Federal Aviation Administration Advisory Circular 150/5300-13, clear zones or of any interest in land for the purpose of any other expansion as set forth in this section.
  - (2) The construction of a new runway.
  - (3) The extension or realignment of an existing runway.
  - (4) Any other expansion of the airport’s physical facilities for the purpose of accomplishing or which are related to the purpose of paragraph (1), (2), or (3).
- (c) This section does not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval on or prior to such effective date of each governmental agency which by law required such approval.

**PLANNING AND ZONING LAW**  
**GOVERNMENT CODE**  
**Title 7—Planning and Land Use**  
**Division 1—Planning and Zoning**  
**Chapter 3—Local Planning**  
**Article 5—Authority for and Scope of General Plans**  
**(excerpts)**

**65302.3. General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrency Findings**

- (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.
- (b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.
- (c) If the legislative body does not concur with any of the provisions of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.
- (d) In each county where an airport land use commission does not exist, but where there is a military airport, the general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport.

## **PLANNING AND ZONING LAW**

### **GOVERNMENT CODE**

#### **Title 7, Division 1**

#### **Chapter 4.5—Review and Approval of Development Projects**

#### **Article 3—Application for Development Projects**

#### **(excerpts)**

*Note: The following government code sections are referenced in Section 21675.2(c) of the ALUC statutes.*

#### **65943. Completeness of Application; Determination; Time; Specification of Parts not Complete and Manner of Completion**

- (a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.
- (b) Not later than 30 calendar days after receipt of the submitted materials, the public agency shall determine in writing whether they are complete and shall immediately transmit that determination to the applicant. If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for the purposes of this chapter.
- (c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency of the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

- (d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

- (e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

### **65943.5.**

- (a) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving a permit application to a board, office, or department within the California Environmental Protection Agency shall be made to the Secretary for Environmental Protection.
- (b) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving an application for the issuance of an environmental permit from an environmental agency shall be made to the Secretary for Environmental Protection under either of the following circumstances:
  - (1) The environmental agency has not adopted an appeals process pursuant to subdivision (c) of Section 65943.
  - (2) The environmental agency declines to accept an appeal for a decision pursuant to subdivision (c) of Section 65943.
- (c) For purposes of subdivision (b), “environmental permit” has the same meaning as defined in Section 72012 of the Public Resources Code, and “environmental agency” has the same meaning as defined in Section 71011 of the Public Resources Code, except that “environmental agency” does not include the agencies described in subdivisions (c) and (h) of Section 71011 of the Public Resources Code.

### **65944. Acceptance of Application as Complete; Requests for Additional Information; Restrictions; Clarification, Amplification, Correction, etc; Prior to Notice of Necessary Information**

- (a) After a public agency accepts an application as complete, the agency shall not subsequently request of an applicant any new or additional information which was not specified in the list prepared pursuant to Section 65940. The agency may, in the course of processing the application, request the applicant to clarify, amplify, correct, or otherwise supplement the information required for the application.
- (b) The provisions of subdivision (a) shall not be construed as requiring an applicant to submit with his or her initial application the entirety of the information which a public agency may require in order to take final action on the application. Prior to accepting an application, each public agency shall inform the applicant of any information included in the list prepared pursuant to Section 65940 which will subsequently be required from the applicant in order to complete final action on the application.
- (c) This section shall not be construed as limiting the ability of a public agency to request and obtain information which may be needed in order to comply with the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

### **65945. Notice of Proposal to Adopt or Amend Certain Plans or Ordinances by City or County, Fee; Subscription to Periodically Updated Notice as Alternative, Fee**

- (a) At the time of filing an application for a development permit with a city or county, the city or county shall inform the applicant that he or she may make a written request to retrieve notice from the city or county of a proposal to adopt or amend any of the following plans or ordinances:
- (1) A general plan.
  - (2) A specific plan.
  - (3) A zoning ordinance.
  - (4) An ordinance affecting building permits or grading permits.

The applicant shall specify, in the written request, the types of proposed action for which notice is requested. Prior to taking any of those actions, the city or county shall give notice to any applicant who has requested notice of the type of action proposed and whose development project is pending before the city or county if the city or county determines that the proposal is reasonably related to the applicant's request for the development permit. Notice shall be given only for those types of actions which the applicant specifies in the request for notification.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this subdivision, the fee shall be collected as part of the application fee charged for the development permit.

- (b) As an alternative to the notification procedure prescribed by subdivision (a), a city or county may inform the applicant at the time of filing an application for a development permit that he or she may subscribe to a periodically updated notice or set of notices from the city or county which lists pending proposals to adopt or amend any of the plans or ordinances specified in subdivision (a), together with the status of the proposal and the date of any hearings thereon which have been set.

Only those proposals which are general, as opposed to parcel-specific in nature, and which the city or county determines are reasonably related to requests for development permits, need be listed in the notice. No proposals shall be required to be listed until such time as the first public hearing thereon has been set. The notice shall be updated and mailed at least once every six weeks; except that a notice need not be updated and mailed until a change in its contents is required.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice, including the costs of updating the notice, for the length of time the applicant requests to be sent the notice or notices.

### **65945.3. Notice of Proposal to Adopt or Amend Rules or Regulations Affecting Issuance of Permits by Local Agency other than City or County; Fee**

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant’s request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

**65945.5. Notice of Proposal to Adopt or Amend Regulation Affecting Issuance of Permits and Which Implements Statutory Provision by State Agency**

At the time of filing an application for a development permit with a state agency, the state agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a regulation affecting the issuance of development permits and which implements a statutory provision.

Prior to adopting or amending any such regulation, the state agency shall give notice to any applicant who has requested such notice and whose development project is pending before the state agency if the state agency determines that the proposal is reasonably related to the applicant’s request for the development permit.

**65945.7. Actions, Inactions, or Recommendations Regarding Ordinances, Rules or Regulations; Invalidity or Setting Aside Ground of Error Only if Prejudicial**

No action, inaction, or recommendation regarding any ordinance, rule, or regulation subject to this Section 65945, 65945.3, or 65945.5 by any legislative body, administrative body, or the officials of any state or local agency shall be held void or invalid or be set aside by any court on the ground of any error, irregularity, informality, neglect, or omission (hereinafter called “error”) as to any matter pertaining to notices, records, determinations, publications, or any matters of procedure whatever, unless after an examination of the entire case, including evidence, the court shall be of the opinion that the error complained of was prejudicial, and that by reason of such error that party complaining or appealing sustained and suffered substantial injury, and that a different result would have been probable if such error had not occurred or existed. There shall be no presumption that error is prejudicial or that injury was done if error is shown.

**65946. [Replaced by AB2351 Statutes of 1993]**

**PLANNING AND ZONING LAW****GOVERNMENT CODE****Title 7, Division 1****Chapter 9.3—Mediation and Resolution of Land Use Disputes****(excerpts)****66030.**

- (a) The Legislature finds and declares all of the following:
- (1) Current law provides that aggrieved agencies, project proponents, and affected residents may bring suit against the land use decisions of state and local governmental agencies. In practical terms, nearly anyone can sue once a project has been approved.
  - (2) Contention often arises over projects involving local general plans and zoning, redevelopment plans, the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), development impact fees, annexations and incorporations, and the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).
  - (3) When a public agency approves a development project that is not in accordance with the law, or when the prerogative to bring suit is abused, lawsuits can delay development, add uncertainty and cost to the development process, make housing more expensive, and damage California's competitiveness. This litigation begins in the superior court, and often progresses on appeal to the Court of Appeal and the Supreme Court, adding to the workload of the state's already overburdened judicial system.
- (b) It is, therefore, the intent of the Legislature to help litigants resolve their differences by establishing formal mediation processes for land use disputes. In establishing these mediation processes, it is not the intent of the Legislature to interfere with the ability of litigants to pursue remedies through the courts.

**66031.**

- (a) Notwithstanding any other provision of law, any action brought in the superior court relating to any of the following subjects may be subject to a mediation proceeding conducted pursuant to this chapter:
- (1) The approval or denial by a public agency of any development project.
  - (2) Any act or decision of a public agency made pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).
  - (3) The failure of a public agency to meet the time limits specified in Chapter 4.5 (commencing with Section 65920), commonly known as the Permit Streamlining Act, or in the Subdivision Map Act (Division 2 (commencing with Section 66410)).
  - (4) Fees determined pursuant to Sections 53080 to 53082, inclusive, or Chapter 4.9 (commencing with Section 65995).

- (5) Fees determined pursuant to Chapter 5 (commencing with Section 66000).
  - (6) The adequacy of a general plan or specific plan adopted pursuant to Chapter 3 (commencing with Section 65100).
  - (7) The validity of any sphere of influence, urban service area, change of organization or reorganization, or any other decision made pursuant to the Cortese-Knox Local Government Reorganization Act (Division 3 (commencing with Section 56000) of Title 5).
  - (8) The adoption or amendment of a redevelopment plan pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) of Division 24 of the Health and Safety Code).
  - (9) The validity of any zoning decision made pursuant to Chapter 4 (commencing with Section 65800).
  - (10) The validity of any decision made pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9 of the Public Utilities Code.
- (b) Within five days after the deadline for the respondent or defendant to file its reply to an action, the court may invite the parties to consider resolving their dispute by selecting a mutually acceptable person to serve as a mediator, or an organization or agency to provide a mediator.
  - (c) In selecting a person to serve as a mediator, or an organization or agency to provide a mediator, the parties shall consider the following:
    - (1) The council of governments having jurisdiction in the county where the dispute arose.
    - (2) Any subregional or countywide council of governments in the county where the dispute arose.
    - (3) The Office of Permit Assistance within the Trade and Commerce Agency, pursuant to its authority in Article 1 (commencing with Section 15399.50) of Chapter 11 of Part 6.7 of Division 3 of Title 2.
    - (4) Any other person with experience or training in mediation including those with experience in land use issues, or any other organization or agency which can provide a person with experience or training in mediation, including those with experience in land use issues.
  - (d) If the court invites the parties to consider mediation, the parties shall notify the court within 30 days if they have selected a mutually acceptable person to serve as a mediator. If the parties have not selected a mediator within 30 days, the action shall proceed. The court shall not draw any implication, favorable or otherwise, from the refusal by a party to accept the invitation by the court to consider mediation. Nothing in this section shall preclude the parties from using mediation at any other time while the action is pending.

**PLANNING AND ZONING LAW****GOVERNMENT CODE****Title 7—Planning and Land Use****Division 2—Subdivisions****Chapter 3—Procedure****Article 3—Review of Tentative Map by Other Agencies  
(excerpts)****66455.9.**

Whenever there is consideration of an area within a development for a public school site, the advisory agency shall give the affected districts and the State Department of Education written notice of the proposed site. The written notice shall include the identification of any existing or proposed runways within the distance specified in Section 17215 of the Education Code. If the site is within the distance of an existing or proposed airport runway as described in Section 17215 of the Education Code, the department shall notify the State Department of Transportation as required by the section and the site shall be investigated by the State Department of Transportation required by Section 17215.

**EDUCATION CODE**  
**Title 1—General Education Code Provisions**  
**Division 1—General Education Code Provisions**  
**Part 10.5—School Facilities**  
**Chapter 1—School Sites**  
**Article 1—General Provisions**  
*(excerpts)*

**17215.**

- (a) In order to promote the safety of pupils, comprehensive community planning, and greater educational usefulness of school sites, before acquiring title to or leasing property for a new school site, the governing board of each school district, including any district governed by a city board of education or a charter school, shall give the State Department of Education written notice of the proposed acquisition or leasing and shall submit any information required by the State Department of Education if the site is within two miles, measured by air line, of that point on an airport runway or a potential runway included in an airport master plan that is nearest to the site.
- (b) Upon receipt of the notice required pursuant to subdivision (a), the State Department of Education shall notify the Department of Transportation in writing of the proposed acquisition or lease. If the Department of Transportation is no longer in operation, the State Department of Education shall, in lieu of notifying the Department of Transportation, notify the United States Department of Transportation or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the department or other agency any information or assistance that it may desire to give.
- (c) The Department of Transportation shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the State Department of Education a written report of its findings including recommendations concerning acquisition or lease of the site. As part of the investigation, the Department of Transportation shall give notice thereof to the owner and operator of the airport who shall be granted the opportunity to comment upon the site. The Department of Transportation shall adopt regulations setting forth the criteria by which a site will be evaluated pursuant to this section.
- (d) The State Department of Education shall, within 10 days of receiving the Department of Transportation's report, forward the report to the governing board of the school district or charter school. The governing board or charter school may not acquire title to or lease the property until the report of the Department of Transportation has been received. If the report does not favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school may not acquire title to or lease the property. If the report does favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school shall hold a public hearing on the matter prior to acquiring or leasing the site.
- (e) If the Department of Transportation's recommendation does not favor acquisition or lease of the proposed site, state funds or local funds may not be apportioned or expended for the acquisition

of that site, construction of any school building on that site, or for the expansion of any existing site to include that site.

- (f) This section does not apply to sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites.

**EDUCATION CODE**  
**Title 3—Postsecondary Education**  
**Division 7—Community Colleges**  
**Part 49—Community Colleges, Education Facilities**  
**Chapter 1—School Sites**  
**Article 2—School Sites**  
*(excerpts)*

**81033. Investigation: Geologic and Soil Engineering Studies; Airport in Proximity**

- (c) To promote the safety of students, comprehensive community planning, and greater educational usefulness of community college sites, the governing board of each community college district, if the proposed site is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site and excluding them if the property is not so located, before acquiring title to property for a new community college site or for an addition to a present site, shall give the board of governors notice in writing of the proposed acquisition and shall submit any information required by the board of governors.

Immediately after receiving notice of the proposed acquisition of property which is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site, the board of governors shall notify the Division of Aeronautics of the Department of Transportation, in writing, of the proposed acquisition. The Division of Aeronautics shall make an investigation and report to the board of governors within 30 working days after receipt of the notice. If the Division of Aeronautics is no longer in operation, the board of governors shall, in lieu of notifying the Division of Aeronautics, notify the Federal Aviation Administration or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the authority or other agency such information or assistance as it may desire to give.

The board of governors shall investigate the proposed site and within 35 working days after receipt of the notice shall submit to the governing board a written report and its recommendations concerning acquisition of the site. The governing board shall not acquire title to the property until the report of the board of governors has been received. If the report does not favor the acquisition of the property for a community college site or an addition to a present community college site, the governing board shall not acquire title to the property until 30 days after the department's report is received and until the board of governors' report has been read at a public hearing duly called after 10 days' notice published once in a newspaper of general circulation within the community college district, or if there is no such newspaper, then in a newspaper of general circulation within the county in which the property is located.

- (d) If, with respect to a proposed site located within two miles of an operative airport runway, the report of the board of governors submitted to a community college district governing board under subdivision (c) does not favor the acquisition of the site on the sole or partial basis of the unfavorable recommendation of the Division of Aeronautics of the Department of Transportation, no state agency or officer shall grant, apportion, or allow to such community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for a community college site acquisition or college building construction, or for expan-

sion of existing sites and buildings, and no funds of the community college district or of the county in which the district lies shall be expended for such purposes; provided that provisions of this section shall not be applicable to sites acquired prior to January 1, 1966, nor any additions or extensions to such sites.

If the recommendations of the Division of Aeronautics are unfavorable, such recommendations shall not be overruled without the express approval of the board of governors and the State Allocation Board.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTES**

**PUBLIC RESOURCES CODE**

**Division 13—Environmental Quality**

**Chapter 2.6—General**

**(excerpts)**

**21096. Airport Planning**

- (a) If a lead agency prepares an environmental impact report for a project situated within airport comprehensive land use plan boundaries, or, if a comprehensive land use plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with Section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.
- (b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

**BUSINESS AND PROFESSIONS CODE**  
**Division 4—Real Estate**  
**Part 2—Regulation of Transactions**  
**Chapter 1—Subdivided Lands**  
**Article 2—Investigation, Regulation and Report**  
**(excerpts)**

**11010.**

- (a) Except as otherwise provided pursuant to subdivision (c) or elsewhere in this chapter, any person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department.
- (b) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:

[Sub-Sections (1) through (12) omitted]

- (13) (A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

- (B) For purposes of this section, an “airport influence area,” also known as an “airport referral area,” is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

**CIVIL CODE**  
**Division 2—Property**  
**Part 4—Acquisition of Property**  
**Title 4—Transfer**  
**Chapter 2—Transfer of Real Property**  
**Article 1.7—Disclosure of Natural Hazards Upon Transfer of Residential Property**  
**(*excerpts*)**

**1103.**

- (a) Except as provided in Section 1103.1, this article applies to any transfer by sale, exchange, installment land sale contract, as defined in Section 2985, lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any real property described in subdivision (c), or residential stock cooperative, improved with or consisting of not less than one nor more than four dwelling units.
- (b) Except as provided in Section 1103.1, this article shall apply to a resale transaction entered into on or after January 1, 2000, for a manufactured home, as defined in Section 18007 of the Health and Safety Code, that is classified as personal property intended for use as a residence, or a mobile-home, as defined in Section 18008 of the Health and Safety Code, that is classified as personal property intended for use as a residence, if the real property on which the manufactured home or mobilehome is located is real property described in subdivision (c).
- (c) This article shall apply to the transactions described in subdivisions (a) and (b) only if the transferor or his or her agent are required by one or more of the following to disclose the property's location within a hazard zone:
  - (1) A person who is acting as an agent for a transferor of real property that is located within a special flood hazard area (any type Zone "A" or "V") designated by the Federal Emergency Management Agency, or the transferor if he or she is acting without an agent, shall disclose to any prospective transferee the fact that the property is located within a special flood hazard area if either:
    - (A) The transferor, or the transferor's agent, has actual knowledge that the property is within a special flood hazard area.
    - (B) The local jurisdiction has compiled a list, by parcel, of properties that are within the special flood hazard area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.
  - (2) ... is located within an area of potential flooding ... shall disclose to any prospective transferee the fact that the property is located within an area of potential flooding ...
  - (3) ... is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 ...

- (4) ... is located within an earthquake fault zone, designated pursuant to Section 2622 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a delineated earthquake fault zone
  - (5) ... is located within a seismic hazard zone, designated pursuant to Section 2696 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a seismic hazard zone
  - (6) ... is located within a state responsibility area determined by the board, pursuant to Section 4125 of the Public Resources Code, shall disclose to any prospective transferee the fact that the property is located within a wildland area that may contain substantial forest fire risks and hazards and is subject to the requirements of Section 4291 ...
- (d) Any waiver of the requirements of this article is void as against public policy.

### **1103.1.**

- (a) This article does not apply to the following transfers:
- (1) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in administration of an estate, transfers pursuant to a writ of execution, transfers by any foreclosure sale, transfers by a trustee in bankruptcy, transfers by eminent domain, and transfers resulting from a decree for specific performance.
  - (2) Transfers to a mortgagee by a mortgagor or successor in interest who is in default, transfers to a beneficiary of a deed of trust by a trustor or successor in interest who is in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, transfers by a sale under a power of sale or any foreclosure sale under a decree of foreclosure after default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale, or transfers by a mortgagee or a beneficiary under a deed of trust who has acquired the real property at a sale conducted pursuant to a power of sale under a mortgage or deed of trust or a sale pursuant to a decree of foreclosure or has acquired the real property by a deed in lieu of foreclosure.
  - (3) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.
  - (4) Transfers from one coowner to one or more other coowners.
  - (5) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.
  - (6) Transfers between spouses resulting from a judgment of dissolution of marriage or of legal separation of the parties or from a property settlement agreement incidental to that judgment.
  - (7) Transfers by the Controller in the course of administering Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.
  - (8) Transfers under Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.
  - (9) Transfers or exchanges to or from any governmental entity.

- (b) Transfers not subject to this article may be subject to other disclosure requirements, including those under Sections 8589.3, 8589.4, and 51183.5 of the Government Code and Sections 2621.9, 2694, and 4136 of the Public Resources Code. In transfers not subject to this article, agents may make required disclosures in a separate writing.

**1103.2.**

- (a) The disclosures required by this article are set forth in, and shall be made on a copy of, the following Natural Hazard Disclosure Statement: ...
- (b) If an earthquake fault zone, seismic hazard zone, very high fire hazard severity zone, or wildland fire area map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a natural hazard area, the transferor or transferor’s agent shall mark “Yes” on the Natural Hazard Disclosure Statement. The transferor or transferor’s agent may mark “No” on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor’s agents to exercise reasonable care in making a determination under this subdivision.

[Sub-Sections (c) through (g) omitted]

[Section 1103.3 omitted]

**1103.4.**

- (a) Neither the transferor nor any listing or selling agent shall be liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the transferor or the listing or selling agent, and was based on information timely provided by public agencies or by other persons providing information as specified in subdivision (c) that is required to be disclosed pursuant to this article, and ordinary care was exercised in obtaining and transmitting the information.
- (b) The delivery of any information required to be disclosed by this article to a prospective transferee by a public agency or other person providing information required to be disclosed pursuant to this article shall be deemed to comply with the requirements of this article and shall relieve the transferor or any listing or selling agent of any further duty under this article with respect to that item of information.
- (c) The delivery of a report or opinion prepared by a licensed engineer, land surveyor, geologist, or expert in natural hazard discovery dealing with matters within the scope of the professional’s license or expertise, shall be sufficient compliance for application of the exemption provided by subdivision (a) if the information is provided to the prospective transferee pursuant to a request therefor, whether written or oral. In responding to that request, an expert may indicate, in writing, an understanding that the information provided will be used in fulfilling the requirements of Section 1103.2 and, if so, shall indicate the required disclosures, or parts thereof, to which the information being furnished is applicable. Where that statement is furnished, the expert shall not be responsible for any items of information, or parts thereof, other than those expressly set forth in the statement. In responding to the request, the expert shall determine whether the property is within

an airport influence area as defined in subdivision (b) of Section 11010 of the Business and Professions Code. If the property is within an airport influence area, the report shall contain the following statement:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

[Remainder of Article 1.7 omitted]

**CIVIL CODE**  
**Division 2, Part 4**  
**Title 6—Common Interest Developments**  
**(excerpts)**

**1353.**

- (a) (1) A declaration, recorded on or after January 1, 1986, shall contain a legal description of the common interest development, and a statement that the common interest development is a community apartment project, condominium project, planned development, stock cooperative, or combination thereof. The declaration shall additionally set forth the name of the association and the restrictions on the use or enjoyment of any portion of the common interest development that are intended to be enforceable equitable servitudes. If the property is located within an airport influence area, a declaration, recorded after January 1, 2004, shall contain the following statement:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

- (2) For purposes of this section, an “airport influence area,” also known as an “airport referral area,” is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.
- (3) The statement in a declaration acknowledging that a property is located in an airport influence area does not constitute a title defect, lien, or encumbrance.
- (b) The declaration may contain any other matters the original signator of the declaration or the owners consider appropriate.

## **LEGISLATIVE HISTORY SUMMARY**

### **PUBLIC UTILITIES CODE**

#### **Sections 21670 et seq.**

#### ***Airport Land Use Commission Statutes***

#### **And Related Statutes**

- 1967 Original ALUC statute enacted.
- Establishment of ALUCs required in each county containing a public airport served by a certificated air carrier.
  - The purpose of ALUCs is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.
- 1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970—Adds provisions which:
- Require ALUCs to prepare comprehensive land use plans.
  - Require such plans to include a long-range plan and to reflect the airport’s forecast growth during the next 20 years.
  - Require ALUC review of airport construction plans (Section 21661.5).
  - Exempt Los Angeles County from the requirement of establishing an ALUC.
- 1971 The function of ALUCs is restated as being to require new construction to conform to Department of Aeronautics standards.
- 1973 ALUCs are permitted to establish compatibility plans for military airports.
- 1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982—Adds major changes which:
- More clearly articulate the purpose of ALUCs.
  - Eliminate reference to “achieve by zoning.”
  - Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.
  - Eliminate the requirement for proposed individual development projects to be referred to an ALUC for review once local general/specific plans are consistent with the ALUC’s plan.
  - Require that local agencies make findings of fact before overriding an ALUC decision.
  - Change the vote required for an override from 4/5 to 2/3.
- 1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984—Amends the law to:
- Require ALUCs in all counties having an airport which serves the general public unless a county and its cities determine an ALUC is not needed.
  - Limit amendments to compatibility plans to once per year.
  - Allow individual projects to continue to be referred to the ALUC by agreement.
  - Extend immunity to airports if an ALUC action is overridden by a local agency not owning the airport.

- › Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.
- 1987 Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987—Makes revisions which:
  - › Require that a designated body serving as an ALUC include two members having “expertise in aviation.”
  - › Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.
  - › Delete *sunset* provisions contained in certain clauses of the law. Allows reimbursement for ALUC costs in accordance with the Commission on State Mandates.
- 1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989—
  - › Sets a requirement that comprehensive land use plans be completed by June 1991.
  - › Establishes a method for compelling ALUCs to act on matters submitted for review.
  - › Allows ALUCs to charge fees for review of projects.
  - › Suspends any lawsuits that would stop development until the ALUC adopts its plan or until June 1, 1991.
- 1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989—Appropriates \$3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of ALUCs in most counties. This statute was repealed in 1993.
- 1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990—Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for ALUC staffs.
- 1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990—With the concurrence of the Division of Aeronautics, allows ALUCs to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.
- 1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990—Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the ALUC statutes.
- 1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991—
  - › Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.
  - › Allows ALUCs to continue to charge fees under these circumstances.
  - › Fees may be charged only until June 30, 1992, if plans are not completed by then.
- 1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993—Amends Section 21670(b) to make the formation of ALUCs permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)
- 1994 Assembly Bill 2831 (Mountjoy) Chapter 644, Statutes of 1994 —Reinstates the language in Section 21670(b) mandating establishment of ALUCs, but also provides for an alternative airport land use planning process. Lists specific actions which a county and affected cities must take in order for such alternative process to receive Caltrans approval. Requires that ALUCs

- be guided by information in the Caltrans *Airport Land Use Planning Handbook* when formulating airport land use plans.
- 1994 Senate Bill 1453 (Rogers) Chapter 438, Statutes of 1994—Amends California Environmental Quality Act (CEQA) statutes as applied to preparation of environmental documents affecting projects in the vicinity of airports. Requires lead agencies to use the *Airport Land Use Planning Handbook* as a technical resource when assessing the airport-related noise and safety impacts of such projects.
- 1997 Assembly Bill 1130 (Oller) Chapter 81, Statutes of 1997—Added Section 21670.4 concerning airports whose planning boundary straddles a county line.
- 2000 Senate Bill 1350 (Rainey) Chapter 506, Statutes of 2000—Added Section 21670(f) clarifying that special districts are among the local agencies to which airport land use planning laws are intended to apply.
- 2001 Assembly Bill 93 (Wayne) Chapter 946, Statutes of 2001—Added Section 21670.3 regarding San Diego County Regional Airport Authority’s responsibility for airport planning within San Diego County.
- 2002 Assembly Bill 3026 (Committee on Transportation) Chapter 438, Statutes of 2002—Changes the term “comprehensive land use plan” to “airport land use compatibility plan.”
- 2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002—Requires information regarding the location of a property within an airport influence area be disclosed as part of certain real estate transactions effective January 1, 2004.
- 2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002—Changes ALUC preparation of airport land use compatibility plans for military airports from optional to required. Requires that the plans be consistent with the safety and noise standards in the Air Installation Compatible Use Zone for that airport. Requires that the general plan and any specific plans be consistent with these standards where there is military airport, but an airport land use commission does not exist.
- 2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003—Clarifies that school districts and community college districts are subject to compatibility plans. Requires local public agencies to notify ALUC and Division of Aeronautics at least 45 days prior to deciding to overrule the ALUC.
- 2004 Senate Bill 1223 (Committee on Transportation) Chapter 615, Statutes of 2004—Technical revisions eliminating most remaining references to the term “comprehensive land use plan” and replacing it with “airport land use compatibility plan.” Also replaces the terms “planning area” and “study area” with “airport influence area.”
- 2005 Assembly Bill 1358 (Mullin) Chapter 29, Statutes of 2005—Requires a school district to notify the Department of Transportation before leasing property for a new school site. Also makes these provisions applicable to charter schools.

## Federal Aviation Regulations Part 77

### Objects Affecting Navigable Airspace

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#### Subpart A

#### GENERAL

Amdt. 77-11, Sept. 25, 1989.

#### **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.

#### **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.

**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.

**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**

**77.11 Scope.**

- (a) This subpart requires each person proposing any kind of construction or alteration described in §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 §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.

### **77.13 Construction or Alteration Requiring Notice.**

- (a) Except as provided in §77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in §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) 5 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 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.

**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.

**77.17 Form and Time of Notice.**

- (a) Each person who is required to notify the Administrator under §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 §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 §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.

### **77.19 Acknowledgment of Notice.**

- (a) The FAA acknowledges in writing the receipt of each notice submitted under §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

#### 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 therefore is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by §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 take-off 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 §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 §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.

#### 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 §77.25, §77.28, or §77.29. However, no part of the takeoff 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.

## **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.

## **77.27 [Reserved]**

## **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.

**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 takeoff 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.

**Subpart D**

**AERONAUTICAL STUDIES OF EFFECT OF PROPOSED CONSTRUCTION ON NAVIGABLE AIRSPACE**

**77.31 Scope.**

- (a) This subpart applies to the conduct of aeronautical studies of the effect of proposed construction or alteration on the use of air navigation facilities or navigable airspace by aircraft. In the aeronautical studies, present and future IFR and VFR aeronautical operations and procedures are reviewed and any possible changes in those operations and procedures and in the construction proposal that would eliminate or alleviate the conflicting demands are ascertained.
- (b) The conclusion of a study made under this subpart is normally a determination as to whether the specific proposal studied would be a hazard to air navigation.

**77.33 Initiation of Studies.**

- (a) An aeronautical study is conducted by the FAA:
  - (1) Upon the request of the sponsor of any construction or alteration for which a notice is submitted under Subpart B of this part, unless that construction or alteration would be located within an antenna farm area established under Subpart F of this part; or

- (2) Whenever the FAA determines it appropriate.

### **77.35 Aeronautical Studies.**

- (a) The Regional Manager, Air Traffic Division of the region in which the proposed construction or alteration would be located, or his designee, conducts the aeronautical study of the effect of the proposal upon the operation of air navigation facilities and the safe and efficient utilization of the navigable airspace. This study may include the physical and electromagnetic radiation effect the proposal may have on the operation of an air navigation facility.
- (b) To the extent considered necessary, the Regional Manager, Air Traffic Division or his designee:
  - (1) Solicits comments from all interested persons;
  - (2) Explores objections to the proposal and attempts to develop recommendations for adjustment of aviation requirements that would accommodate the proposed construction or alteration;
  - (3) Examines possible revisions of the proposal that would eliminate the exceeding of the standards in Subpart C of this part; and
  - (4) Convenes a meeting with all interested persons for the purpose of gathering all facts relevant to the effect of the proposed construction or alteration on the safe and efficient utilization of the navigable airspace.
- (c) The Regional Manager, Air Traffic Division or his designee issues a determination as to whether the proposed construction or alteration would be a hazard to air navigation and sends copies to all known interested persons. This determination is final unless a petition for review is granted under §77.37.
- (d) If the sponsor revises his proposal to eliminate exceeding of the standards of Subpart C of this part, or withdraws it, the Regional Manager, Air Traffic Division, or his designee, terminates the study and notifies all known interested persons.

### **77.37 Discretionary Review.**

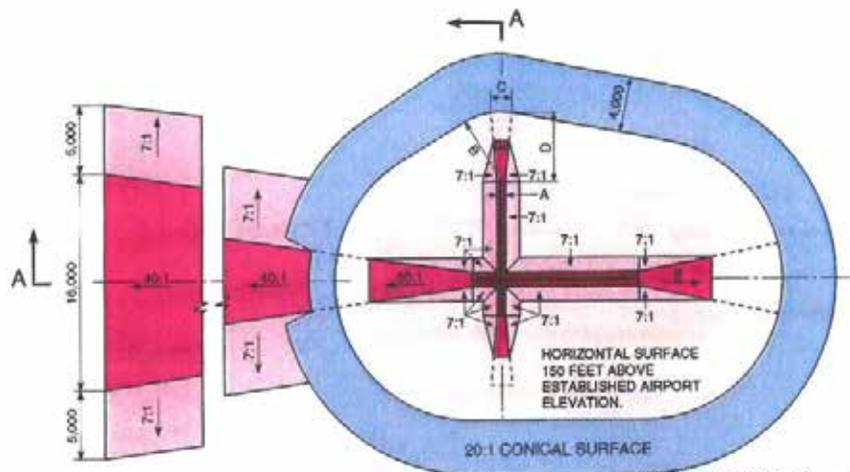
- (a) The sponsor of any proposed construction or alteration or any person who stated a substantial aeronautical objection to it in an aeronautical study, or any person who has a substantial aeronautical objection to it but was not given an opportunity to state it, may petition the Administrator, within 30 days after issuance of the determination under §77.19 or §77.35 or revision or extension of the determination under §77.39 (c), for a review of the determination, revision, or extension. This paragraph does not apply to any acknowledgment issued under §77.19 (c) (1).
- (b) The petition must be in triplicate and contain a full statement of the basis upon which it is made.
- (c) The Administrator examines each petition and decides whether a review will be made and, if so, whether it will be:
  - (1) A review on the basis of written materials, including study of a report by the Regional Manager, Air Traffic Division of the aeronautical study, briefs, and related submissions by any

interested party, and other relevant facts, with the Administrator affirming, revising, or reversing the determination issued under §77.19, §77.35 or §77.39 (c); or

- (2) A review on the basis of a public hearing, conducted in accordance with the procedures prescribed in Subpart E of this part.

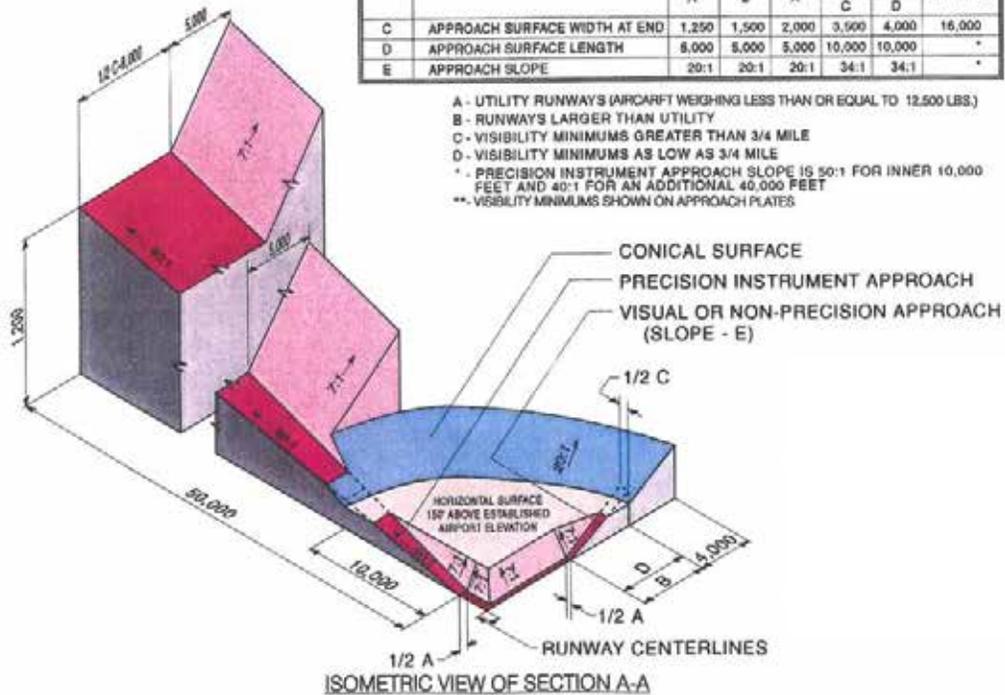
### **77.39 Effective Period of Determination of No Hazard.**

- (a) Unless it is otherwise extended, revised, or terminated, each final determination of no hazard made under this subpart or Subpart B or E of this part expires 18 months after its effective date, regardless of whether the proposed construction or alteration has been started, or on the date the proposed construction or alteration is abandoned, whichever is earlier.
- (b) In any case, including a determination to which paragraph (d) of this section applies, where the proposed construction or alteration has not been started during the applicable period by actual structural work, such as the laying of a foundation, but not including excavation, any interested person may, at least 15 days before the date the final determination expires, petition the FAA official who issued the determination to:
  - (1) Revise the determination based on new facts that change the basis on which it was made; or
  - (2) Extend its effective period.
- (c) The FAA official who issued the determination reviews each petition presented under paragraph (b) of this section, and revises, extends, or affirms the determination as indicated by his findings.
- (d) In any case in which a final determination made under this subpart or Subpart B or E of this part relates to proposed construction or alteration that may not be started unless the Federal Communications Commission issues an appropriate construction permit, the effective period of each final determination includes -
  - (1) The time required to apply to the Commission for a construction permit, but not more than 6 months after the effective date of the determination; and
  - (2) The time necessary for the Commission to process the application except in a case where the Administrator determines a shorter effective period is required by the circumstances.
- (e) If the Commission issues a construction permit, the final determination is effective until the date prescribed for completion of the construction. If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
				C	D		
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,000	4,000	16,000
D	APPROACH SURFACE LENGTH	8,000	8,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	**

- A - UTILITY RUNWAYS (AIRCRAFT WEIGHING LESS THAN OR EQUAL TO 12,500 LBS.)
- B - RUNWAYS LARGER THAN UTILITY
- C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- \* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET
- \*\* - VISIBILITY MINIMUMS SHOWN ON APPROACH PLATES



Source: Federal Aviation Regulations Part 77

Figure B1

## FAR Part 77 Imaginary Surfaces

A **Notice of Proposed Construction or Alteration** (Form 7460-1) must be filed with the Federal Aviation Administration (FAA).

If construction or alteration *is not located* on an airport, you may file electronically (i.e., e-filing) using the following web-link:

<https://oecaa.faa.gov/oecaaEXT/portal.jsp>

If construction or alteration *is located* on an airport, you must file Form 7460-1 via US Postal Mail to:

Western Pacific Region

HI, CA, NV, AZ, GU

Western-Pacific Regional Office Air Traffic Division, AWP-520

15000 Aviation Boulevard Hawthorne, CA 90260

Tel: 310-725-6557

Form 7460-1 is available online in PDF (printable version, only) or Word format (data may be typed into form).

<http://forms.faa.gov/forms/faa7460-1.pdf>

<http://www.faa.gov/aso/aso500/7460-1n.doc>

Figure B2

## FAR Part 77 Filing Process

FAA Form 7460





## Airport Land Use Compatibility Concepts

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### INTRODUCTION

This appendix provides basic information regarding the concepts and rationale used to develop the compatibility policies and maps set forth in Chapters 2 and 3 of this *Fallbrook Community Airpark Land Use Compatibility Plan*. Some of the material is excerpted directly from the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics in January 2002. Other portions are based upon concepts that evolved from technical input obtained during review and discussion of preliminary drafts of key policies.

State law requires that airport land use commissions “be guided by” the information presented in the *Handbook*. Despite the statutory reference to it, though, the *Handbook* does not constitute formal state policy or regulation. Indeed, adjustment of the guidelines to fit the circumstances of individual airports is suggested by the *Handbook*. The *Handbook* guidance does not supersede or otherwise take precedence over the policies adopted by the San Diego County Airport Land Use Commission (ALUC) in this *Compatibility Plan*. Furthermore, this appendix itself does not constitute ALUC policy. If the material herein conflicts in any manner with the actual policy language or maps, the policies and maps prevail.

As outlined in the *Handbook*, the noise and safety compatibility concerns of ALUCs fall into four categories. This *Compatibility Plan* refers to these categories as “layers:”

- › *Noise*: As defined by cumulative noise exposure contours describing noise from aircraft operations near an airport.
- › *Overflight*: The impacts of routine aircraft flight over a community.
- › *Safety*: From the perspective of minimizing the risks of aircraft accidents beyond the runway environment.
- › *Airspace Protection*: Accomplished by limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

The documentation in the remainder of this appendix is organized under these four categories. Under each of the four compatibility category headings, the discussion is organized around four topics:

- › *Compatibility Objective*: The objective to be sought by establishment and implementation of the compatibility policies;
- › *Measurement*: The scale on which attainment of the objectives can be measured;
- › *Compatibility Strategies*: The types of strategies which, when formulated as compatibility policies, can be used to accomplish the objectives; and
- › *Basis for Setting Criteria*: The factors which should be considered in setting the respective compatibility criteria.

## NOISE

Noise is perhaps the most basic airport land use compatibility concern. Certainly, it is the most noticeable form of airport impact.

### Compatibility Objective

The purpose of noise compatibility policies is to avoid establishment of new noise-sensitive land uses in the portions of an airport environs that are exposed to significant levels of aircraft noise, taking into account the characteristics of the airport and the community surrounding the airport.

### Measurement

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for measurement of airport noise, is the Community Noise Equivalent Level (CNEL). Cumulative noise level metrics measure the noise levels of all aircraft operating at an airport on an average day (1/365) of the year. The calculations take into account not only the number of operations of each aircraft type and the noise levels they produce, but also their distribution geographically (the runways and flight tracks used) and by time of day. To reflect an assumed greater community sensitivity to nighttime and evening noise, the CNEL metric counts events during these periods as being louder than actually measured.

Cumulative noise level metrics provide a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed over the course of a day. Although the maximum noise levels produced by individual aircraft are a major component of the calculations, cumulative noise level metrics do not explicitly measure these peak values. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures—ones affected by high concentrations of aircraft takeoffs and landings.

For civilian airports, noise contours are typically calculated using the Federal Aviation Administration's Integrated Noise Model (INM) computer program. For military airports, the similar Department of Defense NOISEMAP model is used. Inputs to these models are of two basic types: standardized data regarding aircraft performance and noise levels generated (this data can be adjusted for a particular airport if necessary); and airport-specific data including aircraft types and number of operations, time of day of aircraft operations, runway usage distribution, and the location and usage of flight tracks. Airport elevation and surrounding topographic data can also be entered. For airports with airport traffic control towers, some of these inputs can be obtained from recorded data. Noise monitoring and radar flight tracking data available for airports in metropolitan areas are other sources of valuable information. At most airports, though, the individual input variables must be estimated.

### Compatibility Strategies

The basic strategy for achieving noise compatibility in an airport's vicinity is to limit 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 noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).

California state law regards any residential land uses as normally incompatible where the noise exposure exceeds 65 dB CNEL (although the state airport noise regulations explicitly apply only to identified “noise problem airports” in the context of providing the ability of these airports to operate under a noise variance from the State, the *Handbook* and other state guidelines extend this criterion to all airports as discussed below). This standard, however, is set with respect to high-activity airports, particularly major air carrier airports, in urban locations, where ambient noise levels are generally higher than in suburban and rural areas. As also discussed below and as provided in the *Handbook*, a lower threshold of incompatibility is often appropriate at certain airports, particularly around airports in suburban or rural locations where the ambient noise levels are lower than those found in more urban areas.

In places where the noise exposure is not so severe as to warrant exclusion of new residential development, the ideal strategy is to have very low densities—that is, parcels large enough that the dwelling can be placed in a less impacted part of the property. In urban areas, however, this strategy is seldom viable. The alternative for such locations is to encourage high-density, multi-family residential development with little, if any, outdoor areas, provided that the 65 dB CNEL standard and limitations based upon safety are not exceeded. Compared to single-family subdivisions, ambient noise levels are typically higher in multi-family developments, outdoor living space is less, and sound insulation features can be more easily added to the buildings. All of these factors tend to make aircraft noise less intrusive.

Sound insulation is an important requirement for residential and other noise-sensitive indoor uses in high noise areas. The California Building Code requires that sufficient acoustic insulation be provided in any habitable rooms of new hotels, motels, dormitories, dwellings other than detached single-family residences to assure that aircraft noise is reduced to an interior noise level of 45 dB CNEL or less. To demonstrate compliance with this standard, an acoustical analysis must be done for any residential structure proposed to be located where the annual CNEL exceeds 60 dB. This *Compatibility Plan* extends the 45 dB CNEL interior noise limit standard to single-family dwellings. The *Compatibility Plan* further requires dedication of an aviation easement (see later discussion in this appendix) as a condition for development approval in locations where these standards come into play.

## Basis for Setting Criteria

Compatibility criteria related to cumulative noise levels are well-established in federal and state laws and regulations. The California Airport Noise Regulations (California Code of Regulations Section 5000 *et seq.*) 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 purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction.”

No airport declared by a county’s board of supervisors as having a “noise problem” is to operate in a manner that results in incompatible uses being located within the 65 dB CNEL contour. In San Diego County, only San Diego International Airport has been so designated. Incompatible uses are defined as being: residences of all types; public and private schools; hospitals and convalescent homes; and places of worship. However, these uses are not regarded as incompatible where acoustical insulation neces-

sary to reduce the interior noise level to 45 dB CNEL has been installed or the airport proprietor has acquired an avigation easement for aircraft noise.

As noted in the regulations, the 65 dB CNEL standard is set with respect to urban areas. For many airports and many communities, 65 dB CNEL is too high to be considered acceptable to “reasonable persons.” Through a process called “normalization,” adjustments can be made to take into account such factors as the background noise levels of the community and previous exposure to particular noise sources. This process suggests, for example, that 60 dB CNEL may be a more suitable criterion for suburban communities not exposed to significant industrial noise and 55 dB CNEL may be appropriate for quiet suburban or rural communities remote from industrial noise and truck traffic. On the other hand, even though exceeding state standards, 70 dB CNEL may be regarded as an acceptable noise exposure in noisy urban residential communities near industrial areas and busy roads.

Industrial activity and transportation noise are undoubtedly two of the most prominent contributors to background noise levels in a community. According to a U.S. Environmental Protection Agency (EPA) study however, the variable that correlates best with ambient noise levels across a broad range of communities is population density (*Population Distribution of the United States as a Function of Outdoor Noise Level*, EPA Report No. 550/9-74-009, June 1974). This study established the following formula as a means of estimating the typical background noise level of a community:

$$DNL_{EPA} = 22 + 10 * \log(p)$$

where “p” is the population density measured in people per square statute mile.

These factors are central considerations in the noise level criteria for new residential development endorsed by the San Diego County ALUC and reflected in the policies of this *Compatibility Plan*. The ALUC considers 65 dB CNEL to be the maximum normally acceptable noise exposure for new residential development near airports in urban areas, 60 dB near airports in suburban areas, and 55 dB near low-activity airports in rural areas. Based upon the above EPA equation, these criteria are a minimum of 5 dB above the predicted ambient noise levels in the respective communities.

Similar considerations come into play with respect to establishing maximum acceptable noise exposure for nonresidential land uses, particularly those that are noise sensitive. For schools, lodging, and other such uses, a higher noise exposure may be tolerated in noisy urban communities than in quieter suburban and rural areas. For uses that are not noise sensitive or which generate their own noise, the maximum acceptable noise exposure levels tend to be the same regardless of ambient noise conditions. The criteria listed in Chapter 3 of this *Compatibility Plan* are set with these various factors in mind.

## OVERFLIGHT

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contours. Many people are sensitive to the frequent presence of aircraft overhead even at low levels of noise. These reactions can mostly be expressed in the form of *annoyance*.

The *Handbook* notes that at many airports, particularly air carrier airports, complaints often come from locations beyond any of the defined noise contours. Indeed, heavily used flight corridors to and from metropolitan areas are known to generate noise complaints 50 miles or more from the associated airport. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive—or, in some circumstances, even distinctly audible—above the quiet, natural background

noise level. Elsewhere, especially in locations beneath the traffic patterns of general aviation airports, a fear factor also contributes to some individuals' sensitivity to aircraft overflights.

While these impacts may be important community concerns, the question of importance here is whether any land use planning actions can be taken to avoid or mitigate the impacts or otherwise address the concerns. Commonly, when overflight impacts are under discussion in a community, the focus is on modification of the flight routes. Indeed, some might argue that overflight impacts should be addressed solely through the aviation side of the equation—not only flight route changes, but other modifications to where, when, and how aircraft are operated. Such changes are not always possible because of terrain, aircraft performance capabilities, FAA regulations, and other factors. In any case, though, ALUCs are particularly limited in their ability to deal with overflight concerns. Most significantly, they have no authority over aircraft operations. The most they can do to bring about changes is to make requests or recommendations. Even with regard to land use, the authority of ALUCs extends only to proposed new development and the delineation of an airport's overall influence area. The authority and responsibility for implementing the *Compatibility Plan's* policies and criteria rests with the local governments.

These limitations notwithstanding, there are steps which ALUCs can and should take to help minimize overflight impacts.

## Compatibility Objective

In an idealistic sense, the compatibility objective with respect to overflight is the same as for noise: avoid new land use development that can disrupt activities and lead to annoyance and complaints. However, given the extensive geographic area over which the impacts occur, this objective is unrealistic except relatively close to the airport. A more realistic objective of overflight compatibility policies therefore is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas.

## Measurement

Cumulative noise metrics such as CNEL are well-suited for use in establishing land use compatibility policy criteria and are the only noise metrics for which widely accepted standards have been adopted. However, these metrics are not very helpful in determining the extent of overflight impact areas. Locations where overflight concerns may be significant are typically well beyond where noise contours can be drawn with precision. Flight tracks tend to be quite divergent and noise monitoring data is seldom available. Moreover, even if the contours could be drawn precisely, the noise levels they would indicate may not be much above the ambient noise levels.

For the purposes of airport land use compatibility planning, two other forms of noise exposure information are more useful. One measure is the momentary, maximum sound level ( $L_{max}$ ) experienced on the ground as the aircraft flies over while landing at and taking off from a runway. These noise levels can be depicted in the form of a noise "footprint" as shown in Figure C1 for a variety of airline and general aviation aircraft. Each of these footprints is broadly representative of those produced by other aircraft similar to the ones shown. The actual sound level produced by any single aircraft takeoff or landing will vary not only among specific makes and models of aircraft, but also from one operation to another of identical aircraft.

In examining the footprints, two additional points are important to note. One is the importance of the outermost contour. This noise level (65 dBA  $L_{max}$ ) is the level at which interference with speech begins to be significant. Land uses anywhere within the noise footprint of a given aircraft would experience a noise level, even if only briefly, that could be disruptive to outdoor conversation. Indoors, with windows closed, the aircraft noise level would have to be at least 20 dBA louder to present similar impacts. A second point to note concerns the differences among various aircraft, particularly business jets. As the data shows, business jets manufactured in the 1990s are much quieter than those of 10 and 20 years earlier. The impacts of the 1990s era jets are similar to those of twin-engine piston aircraft and jets being made in the 2000s are quieter yet. At many general aviation airports, the size of the CNEL contours is driven by a relatively small number of operations by the older, noisier business jets. These aircraft are gradually disappearing from the nationwide aircraft fleet and will likely be mostly gone within 20 years, but at this point in time it is uncertain when they will be completely eliminated.

Another useful form of overflight information is a mapping of the common flight tracks used by aircraft when approaching and departing an airport. Where available, recorded radar data is an ideal source for flight track mapping. Even more revealing is to refine the simple flight track mapping with data such as the frequency of use and aircraft altitudes. This type of data is available for San Diego International Airport and other airports in the metropolitan area. Unfortunately, at the more outlying general aviation airports, radar flight track data is either unavailable for the low altitudes of interest or not recorded in a manner that is very useful. For these airports, it is necessary to rely upon standard traffic pattern locations defined by the FAA, supplemented by anecdotal information obtained from air traffic controllers, airport staff, flight instructors, and others familiar with the operation of the airport.

## Compatibility Strategies

As noted above, the ideal land use compatibility strategy with respect to overflight annoyance is to avoid development of new residential and other noise-sensitive uses in the affected locations. To the extent that this approach is not practical, other strategies need to be explored.

The strategy emphasized in this *Compatibility Plan* is to help people with above-average sensitivity to aircraft overflights—people who are highly *annoyed* by overflights—to avoid living in locations where frequent overflights occur. This strategy involves making people more aware of an airport's proximity and its current and potential aircraft noise impacts on the community before they move to the area. This can be accomplished through buyer awareness measures such as dedication of avigation or overflight easements, recorded deed notices, and/or real estate disclosure statements. In new residential developments, posting of signs in the real estate sales office and/or at key locations in the subdivision itself can be further means of alerting the initial purchasers about the impacts (signs, however, generally do not remain in place beyond the initial sales period and therefore are of little long-term value).

A second strategy is to minimize annoyance in by promoting types of land uses that tend to mask or reduce the intrusiveness of aircraft noise. Although this strategy does not directly appear in the overflight policies of this *Compatibility Plan*, the objectives of the plan would be well-served if local jurisdictions take this concept into consideration in their own planning efforts. To the extent that residential land uses must be located in aircraft overflight areas, multi-family residences—because they tend to have comparatively little outdoor living areas, fewer external walls through which aircraft noise can intrude, and relatively high noise levels of their own—are preferable to single-family dwellings. Particularly undesirable are “ranchette” style residential areas consisting of large (about an acre on average) lots. Such developments are dense enough to expose many people to overflight noise, yet sufficiently rural in character that background noise levels are likely to be low.

## Basis for Setting Criteria

In California, the most definitive guidance on where overflight impacts are significant or what actions should be taken in response comes from a state law that took effect in January 2004. California statutes (Business and Profession Code Section 11010 and Civil Code Sections 1103 and 1353) now require most residential real estate transactions, including all involving new subdivisions, to include disclosure that an airport is nearby. The area encompassed by the disclosure requirements is two miles from the airport or the airport influence area established by the county's airport land use commission. The law defines the airport influence area as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission." This *Compatibility Plan* requires that the disclosure of airport proximity be applied to all new development within both the primary and secondary airport influence areas and recommends that disclosure be provided as part of all real estate transactions involving private property, especially any sale, lease, or rental of residential property.

## SAFETY

Compared to noise, safety is in many respects a more difficult concern to address in airport land use compatibility policies. A major reason for this difference is that safety policies address uncertain events that *may occur* with *occasional* aircraft operations, whereas noise policies deal with known, more or less predictable events which *do occur* with *every* aircraft operation. Because aircraft accidents happen infrequently and the time, place, and consequences of an individual accident's occurrence cannot be predicted, the concept of *risk* is central to the assessment of safety compatibility.

### Compatibility Objective

The overall objective of safety compatibility criteria is to minimize the risks associated with potential off-airport aircraft accidents and emergency landings beyond the runway environment. There are two components to this objective:

- › *Safety on the Ground:* The most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.
- › *Safety for Aircraft Occupants:* The other important component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that takes place beyond the immediate runway environment.

### Measurement

Because aircraft accidents happen infrequently, measuring the risks associated with their occurrence is difficult. It is necessary to look beyond an individual airport in order to assemble enough data to be statistically valid. It is beyond the intent of this discussion to provide statistical data about aircraft accidents. Much can be found on that topic in the *Handbook*. However, certain aspects of aircraft accidents are necessary to discuss in that they have a direct bearing on land use compatibility strategies.

From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents: frequency and consequences.

The frequency variable measures *where* and *when* aircraft accidents occur in the vicinity of an airport. More specifically, these two elements can be described as follows:

- › *Spatial Element:* The spatial element describes *where* aircraft accidents can be expected to occur. Of all the accidents that take place in the vicinity of airports, what percentage occurs in any given location?
- › *Time Element:* The time element adds a *when* variable to the assessment of accident frequency. In any given location around a particular airport, what is the chance that an accident will occur in a specified period of time?

### ***Spatial Distribution of Aircraft Accidents***

Of these two elements, the spatial element is the one most meaningfully applied to land use compatibility planning around an individual airport. Looking at airports nationwide, enough accidents have occurred to provide useful data regarding where they mostly occur in the environs of airports. As described below, the *Handbook* uses this data to define a set of safety zones. Additionally, the relative concentration of accidents in certain parts of the airport environs is a key consideration in the establishment of compatibility criteria applicable within those zones.

In contrast, the time element is not very useful for land use compatibility planning purposes for several reasons. First, at any given airport, the number of accidents is, with rare exceptions, too few to be statistically meaningful in determining where future accidents might occur. Secondly, a calculation of accident frequency over time depends upon the size of the area under consideration—the smaller the area examined, the less likely it is that an accident will occur in that spot. Lastly, even if the accident frequency over a period of time is calculated, there are no clear baselines with which to compare the results—is once per 100 or 1,000 years significant or not?

The *Handbook* presents a set of diagrams indicating where accidents are most likely to occur around airline and general aviation airports. Figures C2 and C3 show the spatial distribution of general aviation aircraft accidents in the vicinity of airports. (Note that these charts show data for all general aviation accidents in the *Handbook* database. Data on accidents associated with different lengths of runway is also provided, though, and is considered in delineation of the safety zones depicted in Chapter 3 of this *Compatibility Plan*.)

The charts reveal several facts:

- › About half of arrival accidents and a third of departure accidents take place within the FAA-defined runway protection zone for a runway with a low-visibility instrument approach procedure (a 2,500-foot long trapezoid, varying from 1,000 feet wide at the inner edge to 1,750 feet in width at the outer end). This fact lends validity to the importance of the runway protection zones as an area within which land use activities should be minimal.
- › Although the runway protection zones represent the locations within which risk levels are highest, a significant degree of risk exists well beyond the runway protection zone boundaries. Among all near-airport (within 5 miles) accidents, over 80% are concentrated within 1.5 to 2.0 miles of a runway end.
- › Arrival accidents tend to be concentrated relatively close to the extended runway centerline. Some 80% occur within a strip extending 10,000 feet from the runway landing threshold and 2,000 feet to each side of the runway centerline.

- › Departure accidents are comparatively more dispersed laterally from the runway centerline, but are concentrated closer to the runway end. Many departure accidents also occur lateral to the runway itself, particularly when the runway is long. Approximately 80% of the departure accident sites lie within an area 2,500 feet from the runway centerline and 6,000 feet beyond the runway end or adjacent to the runway.

To provide some sense of order to the scatter of individual accident points, an analysis presented in the *Handbook* involves aggregating the accident location points (the scatter diagrams of where accidents have occurred relative to the runway) in a manner that better identifies where the accident sites are most concentrated. The results are presented as risk intensity contours—Figure C2 shows arrival accident risks and Figure C3 portrays departure accident risks. The two drawings divide the near-airport accident location points into five groups of 20% each (note that only accident sites that were not on a runway, but were within 5 miles of an airport are included in the database). The 20% contour represents the highest or most concentrated risk intensity, the 40% contour represents the next highest risk intensity, and so on up to 80%. The final 20% of the accident sites are beyond the 80% contour. Each contour is drawn so as to encompass 20% of the points within the most compact area. The contours are irregular in shape. No attempt has been made to create geometric shapes. However, the risk contours can serve as the basis for creating geometric shapes that can then be used as safety zones. The *Handbook* contains several examples. The Department of Defense, through its *Air Installation Compatible Use Zones (AICUZ)* program, has followed a similar process to establish safety zone guidelines for military airports.

The *Handbook* takes the additional step of translating the risk contours into several sets of generic safety zones having regular geometric shapes. Generic safety zones are illustrated for different types and lengths of runways. The shapes of these zones reflect not just the accident distribution data, but also the ways in which different phases of aircraft operations create different accident risk characteristics near an airport. For most runways, the *Handbook* suggests creation of six zones. The locations, typical dimensions, and characteristics of the accident risks within each zone are outlined in Table C1. In more general terms, the relative degree of the risk exposure in each zone can be described as listed below.

- › *Zone 1* clearly is exposed to the greatest risk of aircraft accidents. The dimensions of this zone are established by FAA standards. The FAA encourages airport ownership of this zone and provides specific land use standards to the extent that land is airport owned. Where the land is not airport owned, the FAA says these standards serve as recommendations.
- › *Zone 2* lies beyond *Zone 1* and also has a significant degree of risk as reflected in both national and local accident location data.
- › *Zone 3* has less risk than *Zone 2*, but more than *Zones 4, 5, or 6*. *Zone 3* encompasses locations where aircraft often turn at low altitude while approaching or departing the runway.
- › *Zone 4* lies along the extended runway centerline beyond *Zone 2* and is especially significant at airports that have straight-in instrument approach procedures or a high volume of operations that results in an extended traffic pattern.
- › *Zone 5* is a unique area lying adjacent to the runway and, for most airports, lies on airport property. The risk is comparable to *Zone 4*.
- › *Zone 6* contains the aircraft traffic pattern. Although a high percentage of accidents occur within *Zone 6*, for any given runway *Zone 6* is larger than all the other zones combined. Relative to the

other zones, the risks in Zone 6 are much less, but are still greater than in locations more distant from the airport.

Although accident location data, together with information on how aircraft flight parameters affect where accidents occur, are the bases for delineation of the generic safety zones, the *Handbook* indicates that adjustments to the zone sizes and shapes must be made in recognition of airport-specific characteristics. Among these characteristics are:

- › The particular mix of aircraft types operating at the airport. Larger aircraft generally are faster than smaller planes and thus fly longer and wider traffic patterns or make straight-in approaches.
- › The overall volume of aircraft operations. At busy airports, a larger traffic pattern is common because aircraft have to get in sequence for landing.
- › Nearby terrain or other airports. These physical features may, for example, limit a traffic pattern to a single side of the airport or dictate “nonstandard” approach and departure routes.
- › Instrument approach procedures. Aircraft following these procedures typically fly long, straight-in, gradual descents to the runway. In some cases, though, an approach route may be aligned at an angle to the runway rather than straight in.
- › Existence of an air traffic control tower. When a tower is present, controllers may direct or allow pilots to fly unusual routes in order to expedite traffic flow. By comparison, at relatively busy but non-towered airports, aircraft mostly follow the “standard” pattern dictated by federal aviation regulations.
- › A dominant direction of traffic flow. As reflected in the *Handbook* analysis of accident locations, landing aircraft tend to follow routes directly in line with the runway during final descent and thus accident sites also are concentrated along this alignment. Departing aircraft are more likely to turn to head to their intended destination and the accident pattern is thus more dispersed. On runways where the flow of aircraft operations is almost always in one direction, this distinction in accident patterns is considered.

Radar data is particularly helpful in showing exactly where aircraft fly when approaching or departing an airport. This data can be used to further support adjustments to the safety zones based upon the above characteristics. Radar data, though, is not available for many of the outlying airports in the county. In these instances, information on normal traffic pattern locations has been obtained through contact with local flight instructors and others highly familiar with a particular airport.

As an added note with regard to this discussion of the spatial distribution of aircraft accidents, mention should be made of a question that arose during the preparation of this *Compatibility Plan*. The issue was whether the distribution of accidents around airports in San Diego County is comparable to the nationwide data included in the *Handbook*. With the assistance of local airport operators, aviation businesses, and other individuals having long-term familiarity with the airports, data was assembled on aircraft accident locations near three of the major general aviation airports in the county: Brown Field, McClellan-Palomar, and Montgomery Field. To the extent that a difference in the accident location patterns for these three airports could be discerned from the assembled data, the differences appear to me more airport specific than representative of a distinct pattern of accident locations for all general aviation airports in the county. Given this outcome, reliance has continued to be placed upon the larger and more statistically valid nationwide accident location database.

## **Accident Consequences**

The consequences variable describes *what* happens when an aircraft accident occurs. Specific measures can be defined in terms of deaths, injuries, property damage, or other such characteristics. In many respects, the consequences component of aircraft accident risk assessment is a more important variable than accident frequency. Not only can a single accident cost many lives, it can indirectly force operational changes or even airport closure.

Relatively little data is available specifically documenting the consequences of aircraft accidents. Except with regard to numbers of deaths or injuries to people on the ground, data on various aspects of aircraft accidents must be used to infer what the consequences have been. Swath size is one useful piece of information. It indicates the area over which accident debris is spread. Swath size in turn depends upon the type of aircraft and the nature of the accident: was the aircraft in controlled flight (an engine failure for example), but then collided with something on the ground or did a catastrophic event (such as a mid-air collision or stall-spin) result in the aircraft making an uncontrolled descent? For small general aviation aircraft, the swath size data suggests that a controlled emergency landing in which the aircraft occupants have a strong chance of surviving is possible in an area about the size of a football field: 75 feet by 300 feet or about 0.5 acre. For larger aircraft, the minimum flight speed is so much higher that the consequences for people on board and anyone on the ground are likely to be high regardless of the land use or terrain characteristics.

## **Compatibility Strategies**

The relatively low numbers of deaths and injuries from aircraft accidents is sometimes cited as indicating that the risks are low. Clearly, though, the more people occupying the critical areas around airports, the greater the risks are. Aircraft accidents may be rare occurrences, but when they occur, the consequences can be severe.

From a land use compatibility perspective, it is therefore essential to avoid conditions that can lead to catastrophic results. Basically, the question is: what land use planning measures can be taken to reduce the severity of an aircraft accident if one occurs in a particular location near an airport? Although there is a significant overlap, specific strategies must consider both components of the safety compatibility objective: protecting people and property on the ground; and, primarily for general aviation airports, enhancing safety for aircraft occupants. In each case, the primary strategy is to limit the intensity of use (the number of people concentrated on the site) in locations most susceptible to an off-airport aircraft accident. This is accomplished by three types of criteria.

## **Density and Intensity Limitations**

Establishment of criteria limiting the maximum number of dwellings or people in areas close to the airport is the most direct method of reducing the potential severity of an aircraft accident. In setting these criteria, consideration must be given to the two different forms of aircraft accidents: those in which the aircraft is descending, but is flying and under directional control of the pilot; and those in which the aircraft is out of control as it falls. Available data documented in the *Handbook* and confirmed during analysis of data regarding aircraft accidents in San Diego County indicates that a substantial percentage, if not the majority, of general aviation aircraft accidents fall into the former category. Moreover, these data do not include the incidents in which the pilot made a successful emergency landing—the latter generally are categorized as “incidents” rather than as accidents and do not appear in the National Transportation Safety Board data from which the database in the *Handbook* is drawn.

Limits on usage intensity—the number of people per acre—must take into account both types of potential aircraft accidents. To the extent that accidents and incidents are of the controlled variety, then allowing high concentrations of people in a small area would be sensible, as long as intervening areas are little populated. However, concentrated populations present a greater risk for severe consequences in the event of an uncontrolled accident at that location. The policies in Chapter 3 address both of these circumstances. Limiting the average usage intensity over a site reduces the risks associated with either type of accident. In most types of land use development, though, people are not spread equally throughout the site. To minimize the risks from an uncontrolled accident, the policies also limit the extent to which people can be concentrated and development can be clustered in any small area.

### ***Open Land Requirements***

Creation of requirements for open land near an airport addresses the objective of enhancing safety for the occupants of an aircraft forced to make an emergency landing away from a runway. If sufficiently large and clear of obstacles, open land areas can be valuable for light aircraft anywhere near an airport. For large and high-performance aircraft, however, open land has little value for emergency landing purposes and is useful primarily where it is an extension of the clear areas immediately adjoining a runway.

### ***Highly Risk-Sensitive Uses***

Certain critical types of land uses—particularly schools, hospitals, and other uses in which the mobility of occupants is effectively limited—should be avoided near the ends of runways regardless of the number of people involved. Critical community infrastructure also should be avoided near airports. These types of facilities include power plants, electrical substations, public communications facilities and other facilities, the damage or destruction of which could cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Lastly, aboveground storage of large quantities of highly flammable or hazardous materials may pose high risks if involved in an aircraft accident and therefore are generally incompatible close to runway ends.

### **Basis for Setting Criteria**

As with noise contours, risk data by itself does not answer the question of what degree of land use restrictions should be established in response to the risks. Although most ALUCs have policies that restrict certain land use activities in locations beyond the runway protection zones, the size of the area in which restrictions are established and the specific restrictions applied vary from one county to another.

Data useful in defining the geographic extent of airport safety areas was discussed above. To set safety compatibility criteria applicable within these zones presents the fundamental question of what is safe. Expressed in another way: what is an *acceptable risk*? In one respect, it may seem ideal to reduce risks to a minimum by prohibiting most types of land use development from areas near airports. However, as addressed in the *Handbook*, there are usually costs associated with such high degrees of restrictiveness. In practice, safety criteria are set on a progressive scale with the greatest restrictions established in locations with the greatest potential for aircraft accidents.

Little established guidance is available to ALUCs regarding how restrictive to make safety criteria for various parts of an airport's environs. Unlike the case with noise, there are no formal federal or state laws or regulations which set safety criteria for airport area land uses for civilian airports except within *runway protection zones* (and with regard to airspace obstructions as described separately in the next section). Federal Aviation Administration safety criteria primarily are focused on the runway and its im-

mediate environment. Runway protection zones—then called *clear zones*—were originally established mostly for the purpose of protecting the occupants of aircraft which overrun or land short of a runway. Now, they are defined by the FAA as intended to enhance the protection of people and property on the ground.

The most useful place from which ALUCs can begin to determine appropriate safety compatibility criteria for airport environs is the *Handbook* itself. Although not regulatory in nature, state law obligates ALUCs to “be guided by” the information presented in the *Handbook*. Suggested usage intensity limitations, measured in terms of people per acre, are set forth along with other safety criteria. Reference should be made to that document for detailed description of the suggested criteria. Three risk-related variables discussed in the *Handbook* are worth noting here, however.

- › *Runway Proximity*: In general, the areas of highest risk are closest to the runway ends and secondarily along the extended runway centerline. However, many common aircraft flight tracks do not follow along the runway alignment, particularly on departures. Also, where an aircraft crashes may not be along the flight path that was intended to be followed. As indicated in Figures C2 and C3, these factors affect the risk distribution.
- › *Urban versus Rural Areas*: Irrespective of airports, people living in urban areas face different types of risks than those living in rural areas. The cost of avoiding risks differs between these two settings as well. The *Handbook* acknowledges these differences by indicating that usage intensities can be higher in heavily developed urban areas compared to partially undeveloped suburban areas or minimally developed rural locations, yet be equivalent in terms of the level of acceptable risk.
- › *Existing versus Proposed Uses*: Another distinction in compatibility policies can be drawn between existing and proposed development. It is reasonable for safety-related policies to be established which prohibit certain types of new development while considering identical existing development to be acceptable. The *Handbook* notes that cost is an important factor in this regard. The range of risks can be divided into three levels (see page 9-15 of the *Handbook*). At the bottom of this scale are negligible and acceptable risks for which no action is necessary. At the top are intolerable risks for which action is necessary regardless of the cost. In between are risks that are significant, but tolerable. Whether action should be taken to reduce these risks depends upon the costs involved. Typically, the cost of removing an incompatible development is greater than the cost of avoiding its construction in the first place.

Preparation of this *Compatibility Plan* has been greatly guided by the *Handbook* information. The *Handbook*, though, also recognizes the importance of tailoring compatibility plans to local circumstances. Such has been the case with the safety compatibility criteria included in this *Compatibility Plan*. In many respects, San Diego County is unique in California with regard to having not only highly intensive existing development, but also strong continuing demands for further development. The airport environs are not exempt from these pressures. A major effort has been made in this *Compatibility Plan* to adhere to the fundamental objective, as identified in state law, of minimizing the public’s exposure to excessive safety hazards within airport environs while not unduly restricting needed land use development.

## AIRSPACE PROTECTION

Relatively few aircraft accidents are caused by land use conditions that are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. In addition, and importantly, land use conditions that are hazards to flight may impact the continued viability

of airport operations and limit the ability of an airport to operate in the manner identified by the airport proprietor in an adopted airport master plan and airport layout plan.

## Compatibility Objective

Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions that, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- › Airspace obstructions;
- › Wildlife hazards, particularly bird strikes; and
- › Land use characteristics that pose other potential hazards to flight by creating visual or electronic interference with air navigation.

The purpose of the airspace protection policies is to ensure that structures and other uses do not cause hazards to aircraft in flight in the airport vicinity. Hazards to flight include physical obstructions to the navigable airspace, wildlife hazards, particularly bird strikes and land use characteristics that create visual or electronic interference with aircraft navigation or communication. This purpose is accomplished by policies that place limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

## Measurement

The measurement of requirements for airspace protection around an airport is a function of several variables including: the dimensions and layout of the runway system; the type of operating procedures established for the airport; and, indirectly, the performance capabilities of aircraft operated at the airport.

- › *Airspace Obstructions:* Whether a particular object constitutes an airspace obstruction depends upon two factors: the height of the object relative to the runway elevation; and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an “obstruction” and may affect the aeronautical use of the airspace. Additionally, as described below, another set of airspace protection surfaces is defined by the *U.S. Standard for Terminal Instrument Procedures*, known as TERPS. Although the intended function of these standards is in design of instrument approach and departure procedures, they can be important in land use compatibility planning in situations where ground elevations near an airport exceed the FAR Part 77 criteria.
- › *Wildlife and Other Hazards to Flight:* The significance of other potential hazards to flight is principally measured in terms of the hazards’ specific characteristics and their distance from the airport and/or its normal traffic patterns.

## Compatibility Strategies

Compatibility strategies for the protection of airport airspace are relatively simple and are directly associated with the individual types of hazards:

- › *Airspace Obstructions:* Buildings, antennas, other types of structures, and trees should be limited in height so as not to pose a potential hazard to flight.
- › *Wildlife and Other Hazards to Flight:* Land uses that may create other types of hazards to flight near an airport should be avoided or modified so as not to include the offending characteristic.

## Basis for Setting Criteria

The criteria for determining airspace obstructions have been long-established in FAR Part 77. Also, state of California regulation of obstructions under the State Aeronautics Act (Public Utilities Code, Section 21659) is based on FAR Part 77 criteria. A shortcoming of FAR Part 77 criteria, however, is that they often are too generic to fit the conditions specific to individual airports. The airspace protection surfaces defined in these regulations can be either more or less restrictive than appropriate for a particular airport. The surfaces can be less restrictive than essential in instances where an instrument approach procedure or its missed approach segment are not aligned with the runway. FAR Part 77 also does not take into account instrument departure procedures which, at some airports, can have critical airspace requirements. Oppositely, FAR Part 77 provides no useful guidance as to acceptable heights of objects located where the ground level already penetrates the airspace surfaces.

To define airspace protection surfaces better suited to these situations, reference must be made the TERPS standards mentioned above. These standards are used for creation of instrument approach and departure procedures. Thus they exactly match the procedures in effect at an individual airport. Unlike the FAR Part 77 surfaces, the elevations of which are set relative to the runway end elevations irrespective of surrounding terrain and obstacles, the TERPS surface elevations are directly determined by the location and elevation of critical obstacles. By design, neither the ground nor any obstacles can penetrate a TERPS surface. However, construction of a tall object that penetrates a TERPS surface can dictate immediate modifications to the location and elevation of the surfaces and directly cause minimum flight visibility and altitudes to be raised or the instrument course to be realigned. In severe instances, obstructions can force a procedure to be cancelled altogether. A significant downside to use of TERPS surfaces for compatibility planning purposes is that they are highly complex compared to the relative simplicity of FAR Part 77 surfaces. Also, the configuration and/or elevations of TERPS surfaces can change not only in response to new obstacles, but as implementation of new navigational technologies permits additional or modified instrument procedures to be established at an airport.

In the Compatibility Policy Map: Airspace Protection presented in Chapter 3 of this *Compatibility Plan*, primary reliance is placed upon FAR Part 77 criteria. Where an instrument approach procedure is established, the associated TERPS surfaces are depicted as well. In most locations, the TERPS surfaces are well above the underlying terrain and present no significant constraint on land use development. As a precaution to help ensure that tall towers or antennas located on high terrain do not penetrate a TERPS surface, places where the ground elevation comes within 100 feet of a TERPS surface are shown on the map.

Among other hazards to flight, bird strikes no doubt represent the most widespread concern. The FAA recommends that uses known to attract birds—sanitary landfills being a primary example—be kept at least 10,000 feet away from any runway used by turbine-powered aircraft. More information re-

garding criteria for avoidance of uses that can attract wildlife to airports can be found in FAA Advisory Circulars 150/5200-34 and 150/5300-33.

Other flight hazards include land uses that may cause visual or electronic hazards to aircraft in flight or taking off or landing at the airport. Specific characteristics to be avoided include sources of glare or bright lights, distracting lights that could be mistaken for airport lights, sources of dust, steam, or smoke that may impair pilot visibility, and sources of electrical interference with aircraft communications or navigation.

<b>Zone</b>	<b>Description</b>	<b>Nominal Dimensions</b> (California Airport Land Use Planning Handbook)	<b>Relative Risk Level</b>	<b>Nature of Accident Risk</b>	<b>% of Accidents in Zone</b> (Handbook database)
1	Runway Protection Zone and within Runway Primary Surface  primarily on airport property; airport ownership encouraged	Depending upon approach visibility minimums: 1,200 feet minimum, 2,700 feet maximum beyond runway ends; 125 to 500 feet from centerline adjacent to runway (zone dimensions established by FAA standards)  Acreage (one runway end): 8 to 79 (RPZ only)	Very High	Landing undershoots and overshoots; overruns on aborted takeoffs; loss of control on takeoff	Arrivals: 28%–56% Departures: 23%–29% Total: 33%–39%
2	Inner Safety Zone	Along extended runway centerline, to a distance of 2,000 feet minimum, 6,000 feet maximum beyond runway ends  Acreage (one runway end): 44 to 114	High	Aircraft at low altitude with limited directional options in emergencies: typically under 400 feet on landing; on takeoff, engine at maximum stress	Arrivals: 9%–15% Departures: 3%–28% Total: 8%–22%
3	Inner Turning Zone	Fan-shaped area adjacent to Zone 2 extending 2,000 feet minimum, 4,000 feet maximum from runway ends  Acreage (one runway end): 50 to 151	Moderate	Turns at low altitude on arrival for aircraft flying tight base leg present stall-spin potential; likely touchdown area if emergency at low altitude on takeoff, especially to left of centerline	Arrivals: 2%–6% Departures: 5%–9% Total: 4%–7%
4	Outer Safety Zone	Along extended runway centerline extending 3,500 feet minimum, 10,000 feet maximum beyond runway ends  Acreage (one runway end): 35 to 92	Low to Moderate	Low altitude overflight for aircraft on straight-in approaches, especially instrument approaches; on departure, aircraft normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading	Arrivals: 3%–8% Departures: 2%–4% Total: 2%–6%
5	Sideline Zone  primarily on airport property	Adjacent to runway, 500 feet minimum, 1,000 feet maximum from centerline  Acreage: varies with runway length	Low to Moderate	Low risk on landing; moderate risk from loss of directional control on takeoff, especially with twin-engine aircraft	Arrivals: 1%–3% Departures: 5%–8% Total: 3%–5%
6	Traffic Pattern Zone	Oval area around other zones: 5,000 feet minimum, 10,000 feet maximum beyond runway ends; 4,500 feet minimum, 6,000 feet maximum from runway centerline  Acreage: varies with runway length	Low	Significant percentage of accidents, but spread over wide area; widely varied causes	Arrivals: 10%–21% Departures: 24%–39% Total: 18%–29%

Table C1

## Safety Zone Aircraft Accident Risk Characteristics



## Methods for Determining Concentrations of People

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### INTRODUCTION

The underlying safety compatibility criterion employed by the San Diego County Airport Land Use Commission (ALUC) in this *Compatibility Plan* is “usage intensity”—the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum intensity, it is considered incompatible and thus inconsistent with compatibility planning policies. The usage intensity concept is identified in the *California Airport Land Use Planning Handbook* as the measure best suited for assessment of land use safety compatibility with airports. The *Handbook* is published by the California Division of Aeronautics and is required under state law to be used as a guide in preparation of airport land use compatibility plans.

It is recognized, though, that “people per acre” is not a common measure in other facets of land use planning. This *Compatibility Plan* therefore also utilizes the more common measure of floor area ratio (FAR) as a means of implementing the usage intensity criteria on the local level. This appendix both provides guidance on how the usage intensity determination can be made and defines the relationships between this measure, FAR, and other measures found in land use planning. For a discussion of the rationale for use of people per acre as a measure of risk exposure, see Appendix C.

### COUNTING PEOPLE

The most difficult part about calculating a use’s intensity is estimating the number of people expected to use a particular facility under normal circumstances. All people—not just employees, but also customers and visitors—who may be on the property at a single point in time, whether indoors or outside, must be counted. The only exceptions are for rare special events, such as an air show at an airport, for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

Ideally, the actual number of people for which the facility is designed would be known. For example, the number of seats in a proposed movie theater can be determined with high accuracy once the theater size is decided. Other buildings, though, may be built as a shell and the eventual number of occupants not known until a specific tenant is found. Furthermore, even then, the number of occupants can change in the future as tenants change. Even greater uncertainty is involved with relatively open uses not having fixed seating—retail stores or sports parks, for example.

Absent clearly measurable occupancy numbers, other sources must be relied upon to estimate the number of people in a proposed development.

## Survey of Similar Uses

A survey of similar uses already in existence is one option. Gathering data in this manner can be time-consuming and costly, however. Also, unless the survey sample is sufficiently large and conducted at various times, inconsistent numbers may result. Except for uncommon uses for which occupancy levels cannot be estimated through other means, surveys are most appropriate as supplemental information.

## Maximum Occupancy

A second option for estimating the number of people who will be on a site is to rely upon data indicating the maximum occupancy of a building measured in terms of occupancy load factor—the number of square feet per occupant. The number of people on the site, assuming limited outdoor or peripheral uses, can be calculated by dividing the total floor area of a proposed use by the occupancy load factor. The challenge of this methodology lies in establishing realistic figures for square feet per occupant. The number varies greatly from one use to another and, for some uses, has changed over time as well.

A commonly used source of maximum occupancy data is the standards set in the California Building Code (CBC). The chart reproduced as Table D1 indicates the occupancy load factors for various types of uses. The CBC, though, is intended primarily for purposes of structural design and fire safety and represents a legal maximum occupancy in most jurisdictions. A CBC-based methodology consequently results in occupancy numbers that are higher than normal maximum usage in most instances. The numbers also are based upon usable floor area and do not take into account corridors, stairs, building equipment rooms, and other functions that are part of a building’s gross square footage. Surveys of actual occupancy load factors conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the *Handbook* indicates that the number of people calculated for office and retail uses can usually be divided in half to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the CBC-based methodology typically produces intensities at the high end of the likely range.

Another source of data on square footage per occupant comes from the facility management industry. The data is used to help businesses determine how much building space they need to build or lease and thus tends to be more generous than the CBC standards. The numbers vary not only by the type of facility, as with the CBC, but also by type of industry. The following are selected examples of square footage per *employee* gathered from a variety of sources.

- › Call centers 150 – 175
- › Typical offices 180 – 250
- › Law, finance, real estate offices 300 – 325
- › Research & development, light industry 300 – 500
- › Health services 500

The numbers above do not take into account the customers who may also be present for certain uses. For retail business, dining establishments, theaters, and other uses where customers outnumber employees, either direct measures of occupancy—the number of seats, for example—or other methodologies must be used to estimate the potential number of people on the site.

## Parking Space Requirements

For many jurisdictions and a wide variety of uses, the number of people present on a site can be calculated based upon the number of automobile parking spaces that are required. Certain limitations and assumptions must be considered when applying this methodology, however. An obvious limitation is that parking space requirements can be correlated with occupancy numbers only where nearly all users arrive by private vehicle rather than by public transportation, walking, or other method. Secondly, the jurisdiction needs to have a well-defined parking ordinance that lists parking space requirements for a wide range of land uses. For most uses, these requirements are typically stated in terms of the number of parking spaces that must be provided per 1,000 square feet of gross building size or a similar ratio. Lastly, assumptions must be made with regard to the average number of people who will arrive in each car.

Both of the critical ratios associated with this methodology—parking spaces to building size and occupants to vehicles—vary from one jurisdiction to another even for the same types of uses. Research of local ordinances and other sources, though, indicates that the following ratios are typical.

- ▶ **Parking Space Ratios**—These examples of required parking space requirements are typical of those found in ordinances adopted by urban and suburban jurisdictions. The numbers are ratios of spaces required per 1,000 square feet of gross floor area. Gross floor area is normally measured to the outside surfaces of a building and includes all floor levels as well as stairways, elevators, storage, and mechanical rooms.

▶ Small Restaurants	10.0
▶ Medical Offices	4.0 – 5.7
▶ Shopping Centers	4.0 – 5.0
▶ Health Clubs	3.3 – 5.0
▶ Business Professional Offices	3.3 – 4.0
▶ Retail Stores	3.0 – 3.5
▶ Research & Development	2.5 – 4.0
▶ Manufacturing	2.0 – 2.5
▶ Furniture, Building Supply Stores	0.7 – 1.0

- ▶ **Vehicle Occupancy**—Data indicating the average number of people occupying each vehicle parking at a particular business or other land use can be found in various transportation surveys. The numbers vary both from one community or region to another and over time, thus current local data is best if available. The following data represent typical vehicle occupancy for different trip purposes.

▶ Work	1.05 – 1.2
▶ Education	1.2 – 2.0
▶ Medical	1.5 – 1.7
▶ Shopping	1.5 – 1.8
▶ Dining, Social, Recreational	1.7 – 2.3

## USAGE INTENSITY RELATIONSHIP TO OTHER DEVELOPMENT MEASURES

### Calculating Usage Intensities

Once the number of people expected in a particular development—both over the entire site and within individual buildings—has been estimated, the usage intensity can be calculated. The criteria in Chapter 3 of this *Compatibility Plan* are measured in terms of the average intensity over the entire project site.

The average intensity is calculated by dividing the total number of people on the site by the site size. A 10-acre site expected to be occupied by as many as 1,000 people at a time, thus would have an average intensity of 100 people per acre. The site size equals the total size of the parcel or parcels to be developed.

Having calculated the usage intensities of a proposed development, a comparison can be made with the criteria set forth in the *Compatibility Plan* to determine whether the proposal is consistent or inconsistent with the policies.

### Comparison with Floor Area Ratio

As noted earlier, usage intensity or people per acre is not a common metric in land use planning. Floor area ratio or FAR—the gross square footage of the buildings on a site divided by the site size—is a more common measure in land use planning. Some counties and cities adopt explicit FAR limits in their zoning ordinance or other policies. Those that do not set FAR limits often have other requirements such as, a maximum number of floors a building can have, minimum setback distances from the property line, and minimum number of parking spaces. These requirements effectively limit the floor area ratio as well.

To facilitate local jurisdiction implementation, the Safety Compatibility Criteria table in Chapter 3 has been structured around FAR measures to determine usage intensity limits for many types of nonresidential land use development. To utilize FAR in this manner, a critical additional piece of information is necessary to overcome the major shortcoming of FAR as a safety compatibility measure. The problem with FAR is that it does not directly correlate with risks to people because different types of buildings with the same FAR can have vastly different numbers of people inside—a low-intensity warehouse versus a high-intensity restaurant, for example. For FAR to be applied as a factor in setting development limitations, assumptions must be made as to how much space each person (employees and others) in the building will occupy. The Safety Compatibility Criteria table therefore indicates the assumed occupancy load factor for various land uses. Mathematically, the relationship between usage intensity and FAR is:

$$\text{FAR} = \frac{(\text{allowable usage intensity}) \times (\text{occupancy load factor})}{43,560}$$

where *usage intensity* is measured in terms of people per acre and *occupancy load factor* as square feet per person.

The land use types in the Safety Compatibility Criteria table are organized in part based upon CBC occupancy type classifications. These classifications are indicated in the table. Table D2 in this appendix briefly describes each of these classifications. Other land use types, especially ones not associated with buildings, have been added to the table in order to better cover the range of land use categories that

appear in general plans and zoning ordinances. For most of these added land use types, FAR limits are not applicable.

Selection of the usage intensity, occupancy level, and FAR numbers that appear in the Safety Compatibility Criteria table was done in an iterative manner that considered each of the components both separately and together. Usage intensities were initially set with respect to guidelines provided in the *California Airport Land Use Planning Handbook* (see Appendix C). Occupancy levels were derived from the CBC, but were adjusted based upon additional research from both local and national sources in the manner discussed earlier in this appendix. The FAR limits were initially calculated from these other two numbers using the formula above.

Additionally, research was done to determine the typical FARs of existing development in the vicinity of urban airports in San Diego County. Extensive data provided by the city of Carlsbad indicates that most of the development near McClellan-Palomar Airport has an FAR of 0.40 or less (some small parcels that are part of larger sites and do not individually include parking have higher FARs). The city of Carlsbad has no defined maximum FAR, but buildings have a three-story height limit. Parking typically is all at ground level. FARs in the city of San Diego are higher, particularly for more recent development. City of San Diego staff indicates that the typical FAR for new office and industrial uses in its jurisdiction is 2.0. Table D3 summarizes the usage intensities that correspond to the above FAR data.

### **Comparison with Parking Space Requirements**

As discussed above, many jurisdictions have adopted parking space requirements that vary from one land use type to another. Factoring in an estimated vehicle occupancy rate for various land uses as described earlier, the occupancy load factor can be calculated. For example, a typical parking space requirement for office uses is 4.0 spaces per 1,000 square feet or 1 space per 250 square feet. If each vehicle is assumed to be occupied by 1.1 persons, the equivalent occupancy load factor would be 1 person per 227 square feet. This number falls squarely within the range noted above that was found through separate research of norms used by the facility management industry.

As an added note, the occupancy load factor of 215 square feet per person indicated in the Safety Compatibility Criteria table for office uses is slightly more conservative than the above calculation produces. This means that, for a given usage intensity standard, the FAR limit in the table is slightly more restrictive than would result from a higher occupancy load factor.

<b>Use</b>	<b>Minimum Square Feet per Occupant</b>
1. Aircraft Hangars (no repair)	500
2. Auction Rooms	7
3. Assembly Areas, Concentrated Use (without fixed seats)	7
Auditoriums	
Churches and Chapels	
Dance Floors	
Lobby Accessory to Assembly Occupancy	
Lodge Rooms	
Reviewing Stands	
Stadiums	
Waiting Areas	3
4. Assembly Areas, Less Concentrated Use	15
Conference Rooms	
Dining Rooms	
Drinking Establishments	
Exhibit Rooms	
Gymnasiums	
Lounges	
Stages	
Gaming	11
5. Bowling Alley (assume no occupant load for bowling lanes)	4
6. Children's Homes and Homes for the Aged	80
7. Classrooms	20
8. Congregate Residences	200
9. Courtrooms	40
10. Dormitories	50
11. Dwellings	300
12. Exercising Rooms	50
13. Garage, Parking	200
14. Health-Care Facilities	80
Sleeping Rooms	120
Treatment Rooms	240
15. Hotels and Apartments	200
16. Kitchen – Commercial	200
17. Library Reading Room	50
Stack Areas	100
18. Locker Rooms	50
19. Malls	Varies
20. Manufacturing Areas	200
21. Mechanical Equipment Room	300
22. Nurseries for Children (Daycare)	35
23. Offices	100
24. School Shops and Vocational Rooms	50
25. Skating Rinks	50 on the skating area; 15 on the deck
26. Storage and Stock Rooms	300
27. Stores – Retail Sales Rooms	
Basements and Ground Floors	30
Upper Floors	60
28. Swimming Pools	50 for the pool area; 15 on the deck
29. Warehouses	500
30. All Others	100

*Source: California Building Code (2001), Table 10-A*

**Table D1**

## Occupant Load Factors

### California Building Code

Group and Division	CBC Section	Description of Occupancy <sup>1</sup>
A-1	303.1.1	A building or portion of a building having an assembly room with an occupant load of 1,000 or more and a legitimate stage.
A-2		A building or portion of a building having an assembly room with an occupant load of less than 1,000 and a legitimate stage.
A-2.1		A building or portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as a Group E or Group B Occupancy.
A-3		Any building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes and not classed as a Group E or Group B Occupancy.
A-4		Stadiums, reviewing stands and amusement park structures not included within other Group A Occupancies.
B	304.1	A building or structure, or a portion thereof, for office, professional, or service-type transactions, including storage of records and accounts; eating and drinking establishments with an occupant load of less than 50.
E-1	305.1	Any building used for educational purposes through the 12 <sup>th</sup> grade by 50 or more persons for more than 12 hours per week or four hours in any one day.
E-2		Any building used for educational purposes through the 12 <sup>th</sup> grade by less than 50 persons for more than 12 hours per week or four hours in any one day.
E-3		Any building or portion thereof used for day-care purposes for more than six persons.
F-1	306.1	Moderate-hazard factory and industrial occupancies include factory and industrial uses not classified as Group F, Division 2 Occupancies.
F-2		Low-hazard factory and industrial occupancies include facilities producing noncombustible or nonexplosive materials that during finishing, packing or processing do not involve a significant fire hazard.
H-1	307.1	Occupancies with a quantity of material in the building in excess of those listed in Table 3-D that present a high explosion hazard as listed in Section 307.1.1.
H-2		Occupancies with a quantity of material in the building in excess of those listed in Table 3-D that present a moderate explosion hazard or a hazard from accelerated burning as listed in Section 307.1.1.
H-3		Occupancies with a quantity of material in the building in excess of those listed in Table 3-D that present a high fire or physical hazard as listed in Section 307.1.1.
H-4		Repair garages not classified as Group S, Division 3 Occupancies.
H-5		Aircraft repair hangars not classified as Group S, Division 5 Occupancies and heliports.
H-6	307.1 and 307.11	Semiconductor fabrication facilities and comparable research and development areas when the facilities in which the hazardous production materials are used, and the aggregate quantity of material is in excess of those listed in Table 3-D or 3-E.
H-7	307.1	Occupancies having quantities of materials in excess of those listed in Table 3-E that are health hazards as listed in Section 307.1.1.
I-1.1	308.1	Nurseries for the full-time care of children under the age of six (each accommodating more than five children), hospitals, sanitariums, nursing homes with nonambulatory patients and similar buildings (each accommodating more than five patients <i>[for SFM]</i> six patients or children).
I-1.2		Health-care centers for ambulatory patients receiving outpatient medical care which may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than five such patients).
I-2		Nursing homes for ambulatory patients, homes for children six years of age or older (each accommodating more than five persons <i>[for SFM]</i> six patients or children).
I-3		Mental hospitals, mental sanitariums, jails, prisons, reformatories and buildings where personal liberties of inmates are similarly restrained.
M	309.1	A building or structure, or a portion thereof, for the display and sale of merchandise, and involving stocks of goods, wares or merchandise, incidental to such purposes and accessible to the public.
R-1	310.1	Hotels and apartment houses, congregate residences (each accommodating more than 10 persons).
R-2.1		<i>Residential care facilities for the elderly (each accommodating more than six nonambulatory clients).</i>
R-2.2		<i>Residential care facilities for the elderly (each accommodating more than six ambulatory clients).</i>
R-2.1.1		<i>Residential care facilities for the elderly (each accommodating six or less nonambulatory clients).</i>
R-2.2.1		<i>Residential care facilities for the elderly (each accommodating six or less ambulatory clients).</i>
R-2.3		<i>Residential-based licensed facilities providing hospice care throughout, accommodating more than six bedridden clients.</i>
R-2.3.1		<i>Residential-based facilities providing hospice care throughout, accommodating six or less bedridden clients.</i>
R-3	Dwellings, lodging houses, congregate residences (each accommodating 10 or fewer persons).	
S-1	311.1	Moderate-hazard storage occupancies including buildings or portions of buildings used for storage of combustible materials not classified as Group S, Division 2 or Group H Occupancies.
S-2		Low-hazard storage occupancies including buildings or portions of buildings used for storage of noncombustible materials
S-3		Repair garages where work is limited to exchange of parts and maintenance not requiring open flame or welding, and parking garages not classified as Group S, Division 4 Occupancies.
S-4		Open parking garages.
S-5		Aircraft hangars and helistops.
U-1	312.1	Private garages, carports, sheds and agricultural buildings.
U-2		Fences over 6 feet (1829 mm) high, tanks and towers.

<sup>1</sup> For detailed descriptions, see the occupancy definitions in the noted sections of the California Building Code.

**Table D2**

**Occupancy Types**  
**California Building Code**

Existing Development Intensities (people/acre)	Median		90 Percentile		Specific Sites	
	Average Acre	Single Acre	Average Acre	Single Acre	Average Acre	Single Acre
Montgomery Field Environs						
Industrial	39	110	44	152		
Office	56	290	72	351		
Retail/Commercial	95	350	174	459		
Miramar Environs						
Industrial	37	110	45	218		
Office	63	292	70	321		
Retail/Commercial	92	350	116	355		
McClellan-Palomar Environs						
Office/R&D	70	150	80	250		
Shopping Centers						
Single Story / Surface Parking FAR = 0.24					100	425
Two Story / Parking Structure FAR = 0.54					212	600

**Notes**

- › Intensities were calculated on the basis of 300 s.f./person for R&D uses, 200 s.f./person for office uses, and 125 s.f./person for retail/commercial uses using jurisdiction data on building and parcel sizes; all intensity numbers are approximate
- › Montgomery Field and Miramar environs data from City of San Diego
- › McClellan-Palomar data from City of Carlsbad

Table D3

**Usage Intensities of Existing Development**  
San Diego County Urban Areas

## General Plan Consistency Checklist

This checklist is intended to assist counties and cities with modifications necessary to make their general plans and other local policies consistent with the ALUC's compatibility plan. It is also designed to facilitate ALUC reviews of these local plans and policies. The list will need to be modified to reflect the policies of each individual ALUC and is not intended as a state requirement.

### COMPATIBILITY CRITERIA

#### **General Plan Document**

The following items typically appear directly in a general plan document. Amendment of the general plan will be required if there are any conflicts with the compatibility plan.

- ▶ **Land Use Map**—No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the ALUC land use compatibility criteria.
  - › Residential densities (dwelling units per acre) should not exceed the set limits. Differences between gross and net densities and the potential for secondary dwellings on single parcels (see below) may need to be taken into account.
  - › Proposed nonresidential development needs to be assessed with respect to applicable intensity limits (see below).
  - › No new land uses of a type listed as specifically prohibited should be shown within affected areas.
- ▶ **Noise Element**—General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. This limit must be made consistent with the equivalent compatibility plan criteria. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is often judged to be more objectionable than other types of equally loud noises).

#### **Zoning or Other Policy Documents**

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the compatibility plan may not be required. Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document.

- ▶ **Secondary Dwellings**—Detached secondary dwellings on the same parcel should be counted as additional dwellings for the purposes of density calculations. This factor needs to be reflected in local policies either by adjusting the maximum allowable densities or by prohibiting secondary dwellings where their presence would conflict with the compatibility criteria.
- ▶ **Intensity Limitations on Nonresidential Uses**—Local policies must be established to limit the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria—specifically, the number of people per acre—indicated in the compatibility plan. Alternatively, local jurisdictions may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters which are equivalent to the usage intensity criteria.
- ▶ **Identification of Prohibited Uses**—Compatibility plans may prohibit day care centers, hospitals, and certain other uses within much of each airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations. Policies need to be established which preclude these uses in accordance with the compatibility criteria.

**Zoning or Other Policy Documents, Continued**

- ▶ **Open Land Requirements**—Compatibility plan requirements, if any, for assuring that a minimum amount of open land is preserved for the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land also must be established.
- ▶ **Infill Development**—If a compatibility plan contains infill policies and a jurisdiction wishes to take advantage of them, the lands which meet the qualifications must be shown on a map.
- ▶ **Height Limitations and Other Hazards to Flight**—To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon Part 77 of the Federal Aviation Regulations, but may include exceptions for objects on high terrain if provided for in the compatibility plan. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attract birds). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.
- ▶ **Noise Insulation Requirements**—Some compatibility plans call for certain buildings proposed for construction within high noise-impact areas to demonstrate that they will contain sufficient sound insulation to reduce aircraft-related noise to an acceptable level. These criteria apply to new residences, schools, and certain other buildings containing noise-sensitive uses. Local policies must include parallel criteria.
- ▶ **Buyer Awareness Measures**—As a condition for approval of development within certain compatibility zones, some compatibility plans require either dedication of an aviation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local jurisdiction policies must contain similar requirements. Compatibility plans also may encourage, but should not require, local jurisdictions to adopt a policy stating that airport proximity and the potential for aircraft overflights be disclosed as part of real estate transactions regarding property in the airport influence area.
- ▶ **Nonconforming Uses and Reconstruction**—Local jurisdiction policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the compatibility plan, if any.

Source: *California Airport Land Use Planning Handbook (January 2002)*

**REVIEW PROCEDURES**

In addition to incorporation of ALUC compatibility criteria, local jurisdiction implementing documents must specify the manner in which development proposals will be reviewed for consistency with the compatibility criteria.

- ▶ **Actions Always Required to be Submitted for ALUC Review**—State law specifies which types of development actions must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the jurisdiction's intent to comply with the state statute.
- ▶ **Other Land Use Actions Potentially Subject to ALUC Review**—In addition to the above actions, compatibility plan may identify certain major land use actions for which referral to the ALUC is dependent upon agreement between the jurisdiction and the ALUC. If the jurisdiction fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the ALUC, then referral of the additional actions is voluntary. On the other hand, a jurisdiction may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the ALUC is mandatory. Local policies should indicate the jurisdiction's intentions in this regard.
- ▶ **Process for Compatibility Reviews by Local Jurisdictions**—If a jurisdiction chooses to submit only the mandatory actions for ALUC review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.
- ▶ **Variance Procedures**—Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance which involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the compatibility plan must be referred to the ALUC for review.
- ▶ **Enforcement**—Policies must be established to assure compliance with compatibility criteria during the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

## Sample Implementation Documents

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The responsibility for implementation of the compatibility criteria set forth in the *Jacumba Airport Land Use Compatibility Plan* rests largely with the County of San Diego and affected cities. As described in Appendix E, modification of general plans and specific plans for consistency with applicable compatibility plans is the major step in this process. However, not all of the measures necessary for achievement of airport land use compatibility are necessarily included in general plans and specific plans. Other types of documents also serve to implement the *Compatibility Plan* policies. Samples of such implementation documents are included in this appendix.

### Airport Combining Zone Ordinance

As noted in Chapter 1 of this document, one option that the affected local jurisdictions can utilize to implement airport land use compatibility criteria and associated policies is adoption of an airport combining zone ordinance. An airport combining zone ordinance is a way of collecting various airport-related development conditions into one local policy document. Adoption of a combining zone is not required, but is suggested as an option. Table F1 describes some of the potential components of an airport combining zone ordinance.

### Buyer Awareness Measures

Buyer awareness is an umbrella category for several types of implementation documents all of which have the objective of ensuring that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. The *Jacumba Airport Land Use Compatibility Plan* policies include each of these measures.

- ▶ **Avigation Easement**—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport or, in the case of military airports, to a local government agency on behalf of the federal government (the U.S. Department of Defense is not authorized to accept avigation easements). This *Compatibility Plan* requires avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than might ordinarily occur on the property. Specific easement dedication requirements are set forth in Chapter 2. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. A sample of a standard avigation easement is included in Table F2.
- ▶ **Overflight Easement**—Overflight easements are essentially a subset of avigation easements. They include only the rights pertaining to aircraft overflight and generation of noise and other impacts. No restrictions on the heights of objects, requirements for marking or lighting of objects, or access to the property for these purposes are included. In other respects, overflight easements are the same as avigation easements in that they represent a conveyance of real property from the property owner to the easement holder (i.e., the airport or other government body). Because they lack restrictions on the use of the land, overflight easements serve only as buyer acceptance of overflight conditions.

Overflight easements are generally appropriate in areas outside the 60 dB CNEL noise contour, outside Safety Zones 1 through 5, and within areas where the height of structures and other objects would not pose a significant potential of being airspace obstruction hazards.

- ▶ **Real Estate Disclosure**—A less definitive, but more all-encompassing, form of buyer awareness measure is for the ALUC and local jurisdictions to establish a policy indicating that information about an airport's influence area should be disclosed to prospective buyers of all airport-vicinity properties prior to transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development. The requirement for disclosure of information about the proximity of an airport has been present in state law for some time, but legislation adopted in 2002 and effective in January 2004 explicitly ties the requirement to the airport influence areas established by airport land use commissions (see Appendix A for excerpts from sections of the Business and Professions Code and Civil Code that define these requirements). With certain exceptions, these statutes require disclosure of a property's location within an airport influence area under any of the following three circumstances: (1) sale or lease of subdivided lands; (2) sale of common interest developments; and (3) sale of residential real property. In each case, the disclosure statement to be used is defined by state law as follows:

### NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

An airport compatibility combining zoning ordinance might include some or all of the following components:

- ▶ **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of the Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, Subpart C. Additions or adjustment to take into account instrument approach (TERPS) surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.
- ▶ **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.
- ▶ **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would or does not constitute a hazard to air navigation (Public Utilities Code, Section 21659). Additionally, a permit from the Department of Transportation is required for any structure taller than 500 feet above the ground unless the height is reviewed and approved by the Federal Communications Commission or the FAA (Section 21656).
- ▶ **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.
- ▶ **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. These standards can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.
- ▶ **Open Areas for Emergency Landing of Aircraft**—In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off-airport emergency landing, pilots will usually attempt to do so in the most open areas readily available. To enhance safety both for people on the ground and the occupants of the aircraft, airport compatibility plans often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.
- ▶ **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration which supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]
- ▶ **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance.

Source: *California Airport Land Use Planning Handbook* (January 2002)

**Table F1**

## Sample Airport Combining Zone Components

## Typical Avigation Easement

This indenture made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, between \_\_\_\_\_ hereinafter referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. *[For military airports: Grantee shall hold said easement on behalf of the United States Government.]* The property which is subject to this easement is depicted as \_\_\_\_\_ on “Exhibit A” attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the \_\_\_\_\_ Airport official runway end elevation of \_\_\_\_\_ feet Above Mean Sea Level (AMSL), as determined by [Insert Name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

- (1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and
- (2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and
- (3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; also the right to modify or remove any structures or uses of the land that generate visual, electronic, or physical interference with aircraft flight including, but not limited to sources of glare or bright lights, distracting lights that could be mistaken for airport lights, sources of dust, steam, or smoke that may impair pilot visibility, sources of electrical interference with aircraft communications, and uses that create an increased attraction for wildlife in a manner that is inconsistent with FAA rules and regulations; and
- (4) The right to mark and light, or cause or require to be marked and lighted, as obstructions to air navigation, any and all buildings, structures or other improvements, and trees or other objects, which extend into or above the Airspace; and
- (5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

**Table F2**

## Typical Avigation Easement

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Insert County or City name], for the direct benefit of the real property constituting the \_\_\_\_\_ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow, in or upon the hereinabove described real property, nor will they permit or allow any building structure, improvement, tree, or other object to extend into or above the Airspace so as to constitute an obstruction to air navigation or to obstruct or interfere with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the \_\_\_\_\_ Airport, in the [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of [*for public-use airports:* the Grantee and any and all members of the general public] [*for military airports:* the United States Government] who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the \_\_\_\_\_ Airport, or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors or assigns for monetary damages or other redress due to impacts, as described in paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said \_\_\_\_\_ Airport is the dominant tenement.

DATED:

\_\_\_\_\_

STATE OF            }

ss

COUNTY OF         }

On \_\_\_\_\_, before me, the undersigned, a Notary Public in and for said County and State personally appeared \_\_\_\_\_, and \_\_\_\_\_ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

\_\_\_\_\_

Notary Public

Source: Based upon California Airport Land Use Planning Handbook (January 2002)

Table F2, continued

## Sample Overflight Easement

This indenture made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, between \_\_\_\_\_ hereinafter referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. *[For military airports: Grantee shall hold said easement on behalf of the United States Government.]* The property which is subject to this easement is depicted as \_\_\_\_\_ on “Exhibit A” attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the \_\_\_\_\_ Airport official runway end elevation of \_\_\_\_\_ feet Above Mean Sea Level (AMSL), as determined by [Insert Name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

- (1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and
- (2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the \_\_\_\_\_ Airport, in the [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of *[for public-use airports: the Grantee and any and all members of the general public]* *[for military airports: the United States Government]* who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the \_\_\_\_\_ Airport, or in otherwise flying through said Airspace.

**Table F3**

## Sample Overflight Easement

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors or assigns for monetary damages or other redress due to impacts, as described in paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said \_\_\_\_\_ Airport is the dominant tenement.

DATED:

\_\_\_\_\_

\_\_\_\_\_

STATE OF            }

ss

COUNTY OF        }

On \_\_\_\_\_, before me, the undersigned, a Notary Public in and for said County and State personally appeared \_\_\_\_\_, and \_\_\_\_\_ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

\_\_\_\_\_

Notary Public

*Source: Based upon California Airport Land Use Planning Handbook (January 2002)*

**Table F3, continued**



## APPENDIX **G**

### On-Line Implementation Tool

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Chapter 3 of this *Airport Land Use Compatibility Plan* sets forth the noise, safety, airspace protection, and overflight criteria by which land use plans and individual development projects are to be evaluated for compatibility with the airport. To assist with this evaluation, an interactive on-line implementation tool is being created. As of the adoption date of this Compatibility Plan the tool is not yet available for use, but will be functional as soon as practical.

The tool will utilize the mapping and analysis capabilities of geographic information system (GIS) software. Users will enter specific data about the location and characteristics of a development proposal (for example: parcel number, parcel size, type of use, building height and size, number of residential dwellings or nonresidential occupants). For most projects, the tool will indicate whether the proposal is compatible or incompatible with the adopted criteria. Some projects may contain features that make a clear determination of consistency difficult. The tool will flag these projects for individualized evaluation by staff.

The implementation tool will be designed to be accessed on-line. For more information please contact the ALUC staff at 619-400-2400.



## Glossary of Terms

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**Above Ground Level (AGL):** An elevation datum given in feet above ground level.

**Accident Potential Zones (APZs):** A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminishes with increased distance from the runway.

**Air Carriers:** The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

**Air Installation Compatible Use Zones (AICUZ):** A land use compatible plan prepared by the U.S. Department of Defense for military airfields. AICUZ plans serve as recommendations to local governments bodies having jurisdiction over land uses surrounding these facilities.

**Aircraft Accident:** An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage.

- ▶ Except as provided below, *substantial damage* means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.
- ▶ Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage.

**Aircraft Incident:** A mishap associated with the operation of an aircraft in which neither fatal or serious injuries nor substantial damage to the aircraft occur.

**Aircraft Mishap:** The collective term for an aircraft accident or an incident.

**Aircraft Operation:** The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

**Airport:** An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities if any. (FAR 1)

**Airport Elevation:** The highest point of an airport's useable runways, measured in feet above mean sea level. (AIM)

**Airport Land Use Commission (ALUC):** A commission authorized under the provisions of California Public Utilities Code, Section 21670 et seq. and established (in any county within which a public-use airport is located) for the purpose of promoting compatibility between airports and the land uses surrounding them.

**Airport Layout Plan (ALP):** A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

**Airport Master Plan (AMP):** A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

**Airport Reference Code (ARC):** A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport. (Airport Design AC)

**Airports, Classes of:** For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: (CCR)

- ▶ *Agricultural Airport or Heliport:* An airport restricted to use only by agricultural aerial applicator aircraft (FAR Part 137 operators).
- ▶ *Emergency Medical Services (EMS) Landing Site:* A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and
  - (1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and
  - (2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and
  - (3) is not marked as a permitted heliport as described in Section 3554 of these regulations and
  - (4) is used only for emergency medical purposes.
- ▶ *Heliport on Offshore Oil Platform:* A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.
- ▶ *Personal-Use Airport:* An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.
- ▶ *Public-Use Airport:* An airport that is open for aircraft operations to the general public and is listed in the current edition of the *Airport/Facility Directory* that is published by the National Ocean Service of the U.S. Department of Commerce.
- ▶ *Seaplane Landing Site:* An area of water used, or intended for use, for landing and takeoff of seaplanes.
- ▶ *Special-Use Airport or Heliport:* An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.

- ▶ *Temporary Helicopter Landing Site:* A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and
  - (1) is used or intended to be used for less than one year, except for recurrent annual events and
  - (2) is not marked or lighted to be distinguishable as a heliport and
  - (3) is not used exclusively for helicopter operations.

**Ambient Noise Level:** The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.

**Approach Protection Easement:** A form of easement that both conveys all of the rights of an aviation easement and sets specified limitations on the type of land uses allowed to be developed on the property.

**Approach Speed:** The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

**Aviation-Related Use:** Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations, terminal buildings, etc.

**Avigation Easement:** A type of easement that typically conveys the following rights:

- ▶ A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).
- ▶ A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.
- ▶ A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.
- ▶ A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.
- ▶ A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

**Based Aircraft:** Aircraft stationed at an airport on a long-term basis.

**California Environmental Quality Act (CEQA):** Statutes adopted by the state legislature for the purpose of maintaining a quality environment for the people of the state now and in the future. The Act establishes a process for state and local agency review of projects, as defined in the implementing guidelines, that may adversely affect the environment.

**Ceiling:** Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

**Circling Approach/Circle-to-Land Maneuver:** A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

**Clear Zone:** The military airport equivalent of runway protection zones at civilian airports.

**Combining District:** A zoning district that establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.

**Commercial Activities:** Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage, and tiedown. (CCR)

**Commercial Operator:** A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

**Community Noise Equivalent Level (CNEL):** The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to an equivalent level to account for the lower tolerance of people to noise during evening (7:00 p.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods relative to the daytime period. Evening noise event levels are weighted by a factor of three (+4.77 dB) and nighttime noise event levels are weighted by a factor of ten (+10 dB) prior to averaging. The noise levels are typically depicted by a set of contours, each of which represents points having the same CNEL value. (State Airport Noise Standards)

**Compatibility Plan:** As used herein, a plan, usually adopted by an Airport Land Use Commission that sets forth policies for promoting compatibility between airports and the land uses that surround them. Often referred to as a *Comprehensive Land Use Plan (CLUP)*.

**Controlled Airspace:** Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

**Day-Night Average Sound Level (DNL):** The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is  $L_{dn}$ .

**Decibel (dB):** A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an *A-weighted sound level* (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.

**Deed Notice:** A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.

**Designated Body:** A local government entity, such as a regional planning agency or a county planning commission, chosen by the county board of supervisors and the selection committee of city mayors to act in the capacity of an airport land use commission.

**Displaced Threshold:** A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*). (AIM)

**Easement:** A less-than-fee-title transfer of real property rights from the property owner to the holder of the easement.

**Equivalent Sound Level ( $L_{eq}$ ):** The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.

**FAR Part 77:** The part of the Federal Aviation Regulations that deals with objects affecting navigable airspace.

**FAR Part 77 Surfaces:** Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

**Federal Aviation Administration (FAA):** The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.

**Federal Aviation Regulations (FAR):** Regulations formally issued by the FAA to regulate air commerce.

**Findings:** Legally relevant subconclusions that expose a government agency's mode of analysis of facts, regulations, and policies, and that bridge the analytical gap between raw data and ultimate decision.

**Fixed Base Operator (FBO):** A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

**General Aviation:** That portion of civil aviation that encompasses all facets of aviation except air carriers. (FAA Stats)

**Glide Slope:** An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.

**Global Positioning System (GPS):** A navigational system that utilizes a network of satellites to determine a positional fix almost anywhere on or above the earth. Developed and operated by the U.S. Department of Defense, GPS has been made available to the civilian sector for surface, marine, and aerial navigational use. For aviation purposes, the current form of GPS guidance provides en route aerial navigation and selected types of nonprecision instrument approaches. Eventual application of GPS as the principal system of navigational guidance throughout the world is anticipated.

**Helipad:** A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

**Heliport:** A facility used for operating, basing, housing, and maintaining helicopters. (HAI)

**Infill:** Development that takes place on vacant property largely surrounded by existing development, especially development that is similar in character.

**Instrument Approach Procedure:** 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. It is prescribed and approved for a specific airport by competent authority (refer to *Nonprecision Approach Procedure* and *Precision Approach Procedure*). (AIM)

**Instrument Flight Rules (IFR):** Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

**Instrument Landing System (ILS):** A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

**Instrument Operation:** An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

**Instrument Runway:** A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

**Inverse Condemnation:** An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.

**Land Use Density:** A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

**Land Use Intensity:** A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

**Large Airplane:** An airplane of more than 12,500 pounds maximum certificated takeoff weight. (Airport Design AC)

**Localizer (LOC):** The component of an ILS that provides course guidance to the runway. (AIM)

**Mean Sea Level (MSL):** An elevation datum given in feet from mean sea level.

**Minimum Descent Altitude (MDA):** The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

**Missed Approach:** A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

**National Transportation Safety Board (NTSB):** The U.S. government agency responsible for investigating transportation accidents and incidents.

**Navigational Aid (Navaid):** Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight. (AIM)

**Noise Contours:** Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.

**Noise Level Reduction (NLR):** A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.

**Noise-Sensitive Land Uses:** Land uses for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise sensitive land uses include, but are not limited to, the following: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.

**Nonconforming Use:** An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.

**Nonprecision Approach Procedure:** A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

**Nonprecision Instrument Runway:** A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure. (Airport Design AC)

**Object Free Area (OFA):** An area on the ground centered on a runway centerline, provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. The dimensions vary with the classification of the airport. The maximum length of an OFA is 1,000 feet beyond the runway end. An extended OFA extends to the end of the runway protection zone (RPZ) (Airport Design AC).

**Obstruction:** Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceeds the standards established in Subpart C of Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*.

**Overflight:** Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.

**Overflight Easement:** A type of easement that typically includes the following rights, but not rights pertaining to limitations on the height of structures or access to the property (compare with *avigation easement*):

- ▶ A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).
- ▶ A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.

**Overflight Zone:** The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

**Overlay Zone:** See *Combining District*.

**Planning Area Boundary:** An area surrounding an airport designated by an ALUC for the purpose of airport land use compatibility planning conducted in accordance with provisions of the State Aeronautics Act.

**Precision Approach Procedure:** A standard instrument approach procedure where an electronic glide slope is provided. (FAR 1)

**Precision Instrument Runway:** A runway with an existing or planned precision instrument approach procedure. (Airport Design AC)

**Referral Area:** The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.

**Runway Protection Zone (RPZ):** An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground. (Airport Design AC)

**Safety Zone:** For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

**Single-Event Noise:** As used in herein, the noise from an individual aircraft operation or overflight.

**Single Event Noise Exposure Level (SENEL):** A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in California by the state Airport Noise Standards and is essentially identical to *Sound Exposure Level (SEL)*.

**Site Approval Permit:** A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

**Small Airplane:** An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)

**Sound Exposure Level (SEL):** A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.

**Straight-In Instrument Approach:** An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

**Taking:** Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.

**Terminal Instrument Procedures (TERPS):** Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

**Threshold:** The beginning of that portion of the runway usable for landing (also see *Displaced Threshold*). (AIM)

**Touch-and-Go:** An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. (AIM)

**Traffic Pattern:** The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

**Visual Approach:** An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

**Visual Flight Rules (VFR):** Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum—generally, a 1,000-foot ceiling and 3-mile visibility.

**Visual Runway:** 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. (Airport Design AC)

**Zoning:** A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established, as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district, but they must be uniform within districts. A zoning ordinance consists of two parts: the text and a map.

## Glossary Sources

**FAR 1:** Federal Aviation Regulations Part 1, Definitions and Abbreviations

**AIM:** Aeronautical Information Manual

**Airport Design AC:** Federal Aviation Administration, *Airport Design* Advisory Circular 150/5300-13

**CCR:** California Code of Regulations, Title 21, Section 3525 et seq., *Division of Aeronautics*

**FAA ATA:** Federal Aviation Administration, *Air Traffic Activity*

**FAA Stats:** Federal Aviation Administration, *Statistical Handbook of Aviation*

**HAI:** Helicopter Association International

**NTSB:** National Transportation and Safety Board