

Background Data: Chiriaco Summit Airport and Environs

INTRODUCTION

Chiriaco Summit Airport is a low-activity airport situated in the midst of the desert at the eastern edge of the Coachella Valley. The airport serves as an access point to nearby Joshua Tree National Park as well as a stopover or emergency landing site for aircraft crossing the desert. No aircraft are based there and total operations are estimated at only some 4,000 annually.

The airport's history is considerably more active. Established at the outset of World War II and known initially as Shavers Summit Army Air Field, the airport was part of Camp Young, the command post for the Army's Desert Training Center (later renamed the California-Arizona Maneuver Area). More than a million men trained at bases in the surrounding desert. The area's history is documented at the General Patton Memorial Museum located adjacent to the airport.

Except for the museum, a truck stop, and a few other buildings at the small community of Chiriaco Summit at the west end of the runway, the airport environs are nearly unpopulated. Much of this development is within the approach zone of the airport. However, the very-low activity levels of the airport, together with the fact that most aircraft approach from and depart toward the opposite end of the runway, minimize any compatibility conflicts.

Data regarding the airport and its usage is portrayed Exhibits CS-1 through CS-5 on the following pages. Land use information is summarized in Exhibits CS-6 and CS-7.

GENERAL INFORMATION

- ▶ *Airport Ownership:* County of Riverside
- ▶ *Year Opened:* 1942; County-owned since 1947
- ▶ *Property Size*
 - ▶ Fee title: 570 acres
 - ▶ Avigation easements: None
- ▶ *Airport Classification:* General Aviation
- ▶ *Airport Elevation:* 1,713 feet MSL

AIRPORT PLANNING DOCUMENTS

- ▶ *Airport Master Plan*
 - ▶ None
- ▶ *Airport Layout Plan Drawing*
 - ▶ January 1992

RUNWAY/TAXIWAY DESIGN

Runway 6-24

- ▶ *Critical Aircraft:* Single engine, piston
- ▶ *Airport Reference Code:* A-I
- ▶ *Dimensions:* 4,600 ft. long, 50 ft. wide
- ▶ *Pavement Strength (main landing gear configuration)*
 - ▶ 6,000 lbs (single wheel)
- ▶ *Average Gradient:* 0.9% (rising to west)
- ▶ *Runway Lighting*
 - ▶ None
- ▶ *Primary Taxiways:* No parallel taxiway; only a connecting taxiway between apron and Rwy 6 approach end

TRAFFIC PATTERNS AND APPROACH PROCEDURES

- ▶ *Airplane Traffic Patterns*
 - ▶ Runways 6 & 24: Left traffic
- ▶ *Instrument Approach and Departure Procedures*
 - ▶ None
- ▶ *Visual Approach Aids*
 - ▶ None
- ▶ *Operational Restrictions / Noise Abatement Procedures*
 - ▶ Line of sight limited to 1,400 feet from either end of runway
 - ▶ Daytime operations only

APPROACH PROTECTION

- ▶ *Runway Protection Zones (RPZ)*
 - ▶ Runway 6: 1,000 ft. long; all on airport property
 - ▶ Runway 24: 1,000 ft. long; all on airport property
- ▶ *Approach Obstacles*
 - ▶ None

BUILDING AREA

- ▶ *Location:* Southwest corner of airport property
- ▶ *Aircraft Parking Capacity*
 - ▶ Hangar spaces: 0
 - ▶ Tiedowns: 4
- ▶ *Other Major Facilities*
 - ▶ General Patton Memorial Museum
 - ▶ Service station; mini-market
 - ▶ Restaurant
 - ▶ Water and sewage treatment plant
- ▶ *Services*
 - ▶ None; airport unattended

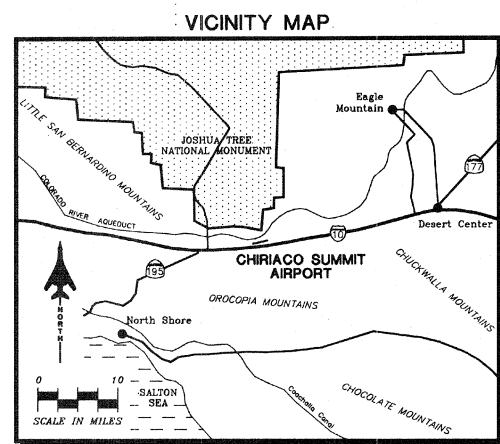
PLANNED FACILITY IMPROVEMENTS

- ▶ *Airfield and Building Area*
 - ▶ None
- ▶ *Property*
 - ▶ None

Exhibit CS-1

Airport Features Summary

Chiriaco Summit Airport



RUNWAY END COORDINATES		
RUNWAY	EXISTING	ULTIMATE
Runway 6	Latitude 33° 39' 50.25" N Longitude 115° 43' 2.21" W	Latitude 33° 39' 50.25" N Longitude 115° 43' 2.21" W
Runway 24	Latitude 33° 39' 59.74" N Longitude 115° 42' 7.78" W	Latitude 33° 39' 59.74" N Longitude 115° 42' 7.78" W

BUILDINGS/FACILITIES			
EXISTING	ULTIMATE	DESCRIPTION	ELEVATION
1		GENERAL PATTON MUSEUM	1753
2		CHIRIACO SUMMIT TRAILER PARK	1728
3		CHOLLA HOUSE ANTIQUES	1728
4		CAFE/MINI MARKET	1733
5		CHEVRON SERVICE STATION	1735
6		STORAGE BUILDING (With wind sock)	1730
7		CHIRIACO SUMMIT HOTEL	1733
8		TRAILER HOMES	1728

AIRPORT DATA			
Chiriaco Summit Airport (L77)			
CITY: Chiriaco Summit, California		COUNTY: Riverside California	
RANGE: 12 East		TOWNSHIP: 6 South	
		CIVIL TOWNSHIP: None	
	EXISTING	ULTIMATE	
AIRPORT SERVICE LEVEL	General Aviation	General Aviation	
AIRPORT REFERENCE CODE	A-1	A-1	
AIRPORT ELEVATION	1713 MSL	1713 MSL	
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH	104°F	104°F	
AIRPORT REFERENCE POINT (ARP) COORDINATES	Latitude 33° 39' 55" N Longitude 115° 42' 35" W	Latitude 33° 39' 55" N Longitude 115° 42' 35" W	
AIRPORT and TERMINAL NAVIGATIONAL AIDS			

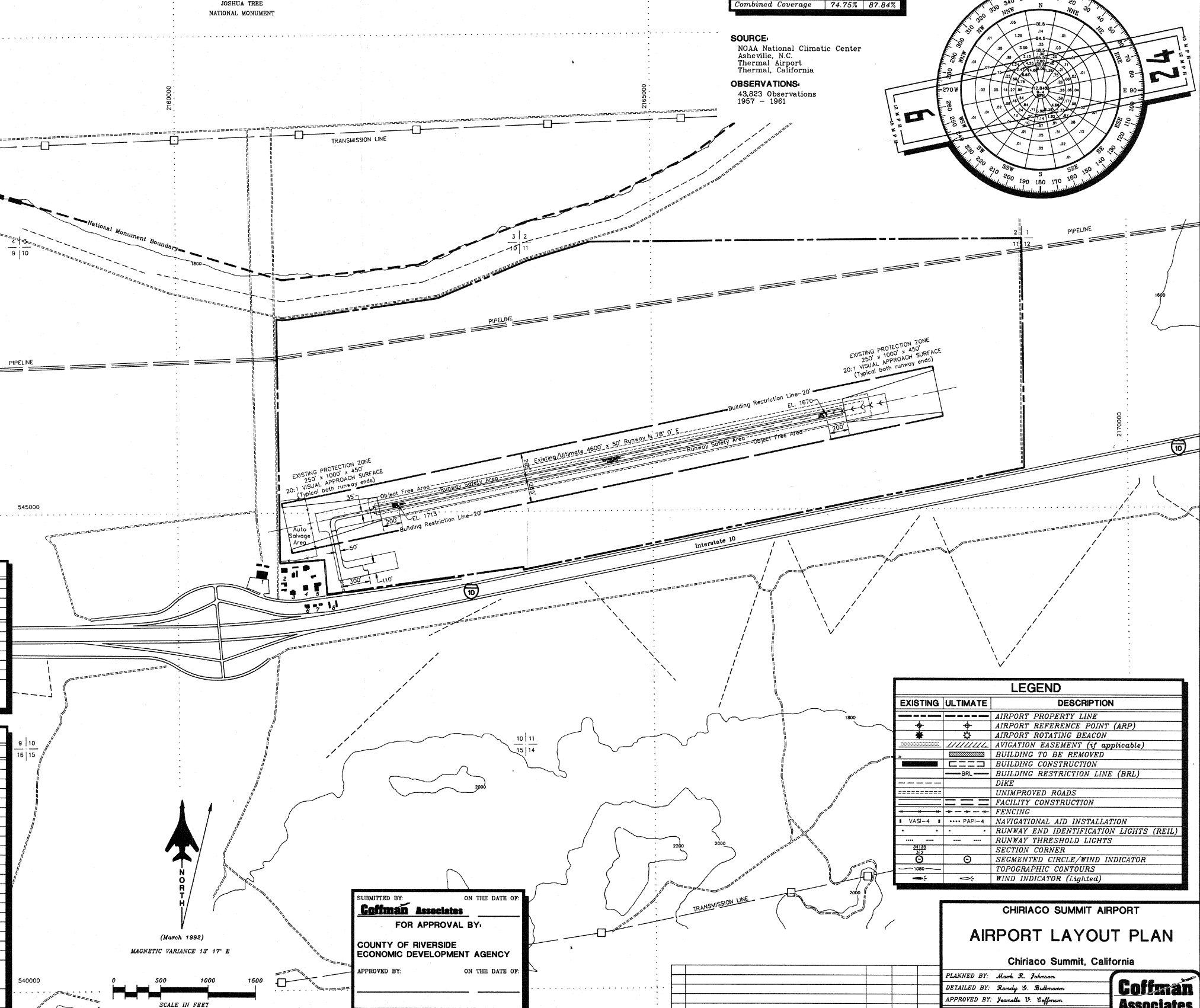
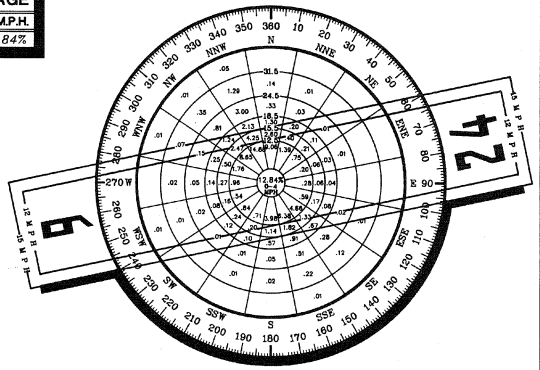
RUNWAY DATA	RUNWAY 5-23	
	EXISTING	ULTIMATE
AIRPORT REFERENCE CODE	A-1	A-1
RUNWAY CATEGORY	Basic Utility	Basic Utility
RUNWAY AZIMUTH	78.0000°	78.0000°
RUNWAY BEARING	N 78.0000° E	N 78.0000° E
RUNWAY DIMENSIONS	4600' ± 50'	4600' ± 50'
RUNWAY INSTRUMENTATION	Visual	Visual
RUNWAY APPROACH SURFACES	20:1	20:1
RUNWAY THRESHOLD DISPLACEMENT	None	None
RUNWAY STOPWAY	170' (24)	170' (24)
RUNWAY SAFETY AREA	5250' ± 120'	5250' ± 120'
RUNWAY OBSTACLE FREE ZONE	5000' ± 250'	5000' ± 250'
RUNWAY OBJECT FREE AREA	5370' ± 250'	5370' ± 250'
PAVEMENT MATERIAL	Asphalt	Asphalt
PAVEMENT SURFACE TREATMENT	None	None
PAVEMENT STRENGTH (in thousand lbs.) ¹	6(S)	6(S)
RUNWAY EFFECTIVE GRADIENT (in %)	934	934
RUNWAY MARKING	Basic	Basic
RUNWAY LIGHTING	None	None
RUNWAY APPROACH LIGHTING	None	None
TAXIWAY LIGHTING	None	None
TAXIWAY MARKING	Centerline	Centerline
NAVIGATIONAL AIDS		

¹ Pavement strengths are expressed in Single (S), Dual (D), Dual Tandem (DT), and/or Double Dual Tandem (DDT), wheel loading capacities.

ALL WEATHER WIND COVERAGE		
	12 MPH	15 MPH
Combined Coverage	74.75%	87.84%

SOURCE:
NOAA National Climatic Center
Asheville, N.C.
Thermal Airport
Thermal, California

OBSERVATIONS:
43,823 Observations
1957 - 1961



LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
---	---	AIRPORT PROPERTY LINE
+	+	AIRPORT REFERENCE POINT (ARP)
*	*	AIRPORT ROTATING BEACON
////	////	AVIATION EASEMENT (if applicable)
---	---	BUILDING TO BE REMOVED
---	---	BUILDING CONSTRUCTION
---	---	BUILDING RESTRICTION LINE (BRL)
---	---	DIKE
---	---	UNIMPROVED ROADS
---	---	FACILITY CONSTRUCTION
---	---	FENCING
+	+	NAVIGATIONAL AID INSTALLATION
+	+	RUNWAY END IDENTIFICATION LIGHTS (REIL)
+	+	RUNWAY THRESHOLD LIGHTS
+	+	SECTION CORNER
+	+	SECTORED CIRCLE/WIND INDICATOR
+	+	TOPOGRAPHIC CONTOURS
+	+	WIND INDICATOR (Lighted)

SUBMITTED BY: **Coffman Associates** ON THE DATE OF: _____

FOR APPROVAL BY: _____

COUNTY OF RIVERSIDE
ECONOMIC DEVELOPMENT AGENCY

APPROVED BY: _____ ON THE DATE OF: _____

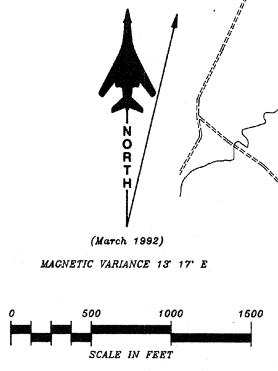
CHIRIACO SUMMIT AIRPORT
AIRPORT LAYOUT PLAN

Chiriaco Summit, California

PLANNED BY: Mark R. Johnson
DETAILED BY: Randy S. Bullmann
APPROVED BY: Pamela V. Coffman

Coffman Associates
Airport Consultants

June 22, 1992 SHEET 1 OF 1



No.	REVISIONS	DATE	BY	APP'D

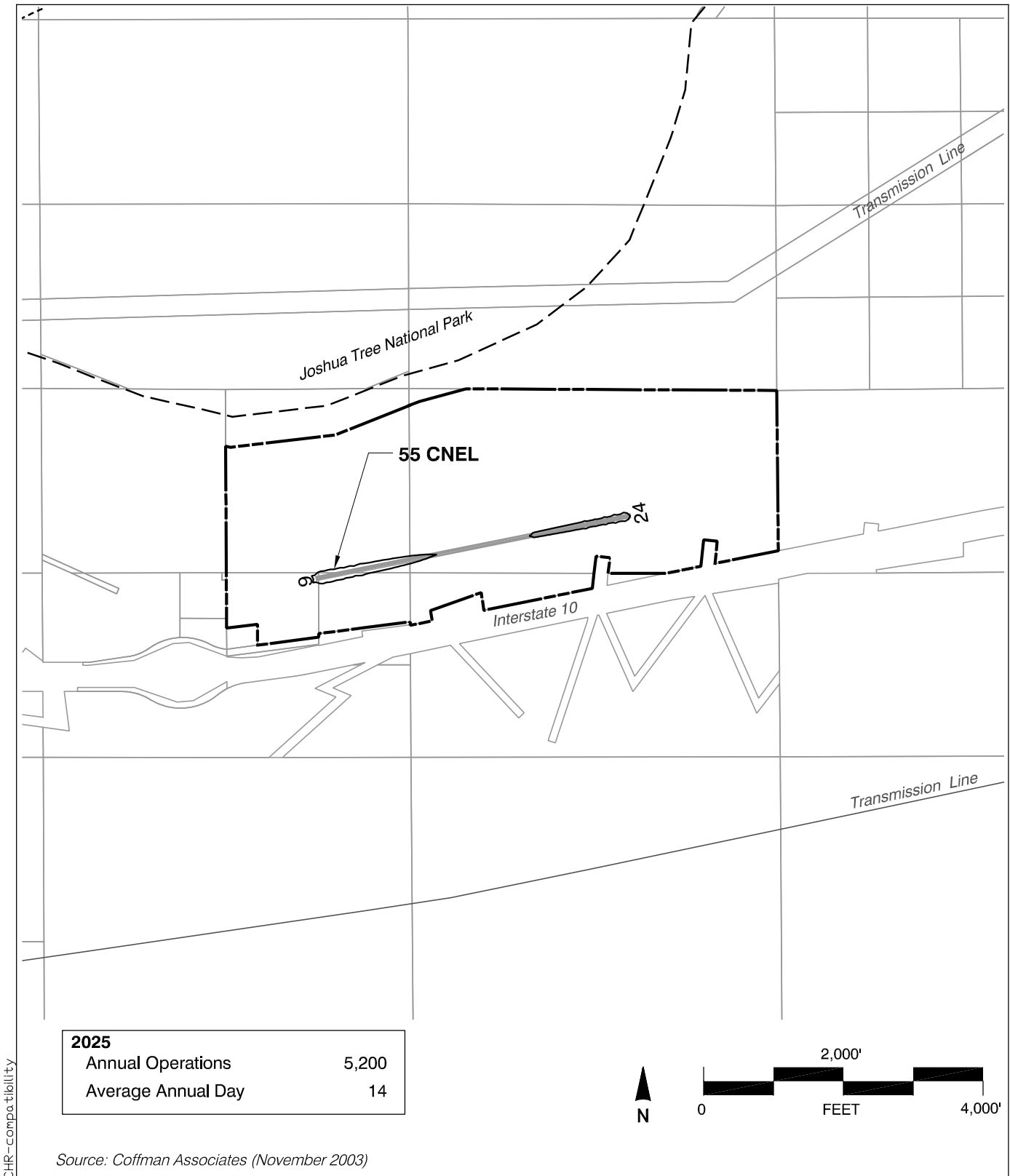
BASED AIRCRAFT			TIME OF DAY DISTRIBUTION ^b		
<i>Aircraft Type</i>	Current ^a <i>2002 data</i>	Future ^b <i>2025 forecast</i>		Current	Future
Single-Engine	2	5	<i>All Aircraft</i>		
Twin-Engine Piston	0	0	Day	95%	no change
Turboprop	0	0	Evening	5%	
Turbojet	0	0	Night	0%	
Helicopters	0	0			
<i>Total</i>	2	5			
AIRCRAFT OPERATIONS			RUNWAY USE DISTRIBUTION ^b		
	Current ^a <i>2002 data</i>	Future ^b <i>2025 forecast</i>		Current	Future
<i>Total</i>			<i>All Airplanes – Daylight Hours</i>		
Annual	4,000 ^c	5,200	Takeoffs		
Average Day	11	14	Runway 6	67%	no change
			Runway 24	33%	
<i>Distribution by Aircraft Type</i>			Landings		
Single-Engine	95%		Runway 6	17%	no change
Twin-Engine Piston	5%	no change	Runway 24	83%	
Twin-Engine, Turboprop	0%				
Business Jet	0%				
Helicopter	0%				
<i>Distribution by Type of Operation</i>			FLIGHT TRACK USAGE ^b		
Local (incl. touch-and-goes)	3%	no change	Current & Future		
Itinerant	97%		<ul style="list-style-type: none"> ▶ Approaches, Both Runways <ul style="list-style-type: none"> › Mostly left-hand pattern, some straight-in, depending upon direction of arrival ▶ Departures, Both Runways <ul style="list-style-type: none"> › Mostly straight-out, some left-hand pattern, depending upon direction of travel 		

Notes

- ^a Source: Airport management records and estimates
- ^b Source: Estimated/Projected for compatibility planning purposes
- ^c Source: California Division of Aeronautics aircraft operations counter program

Exhibit CS-3

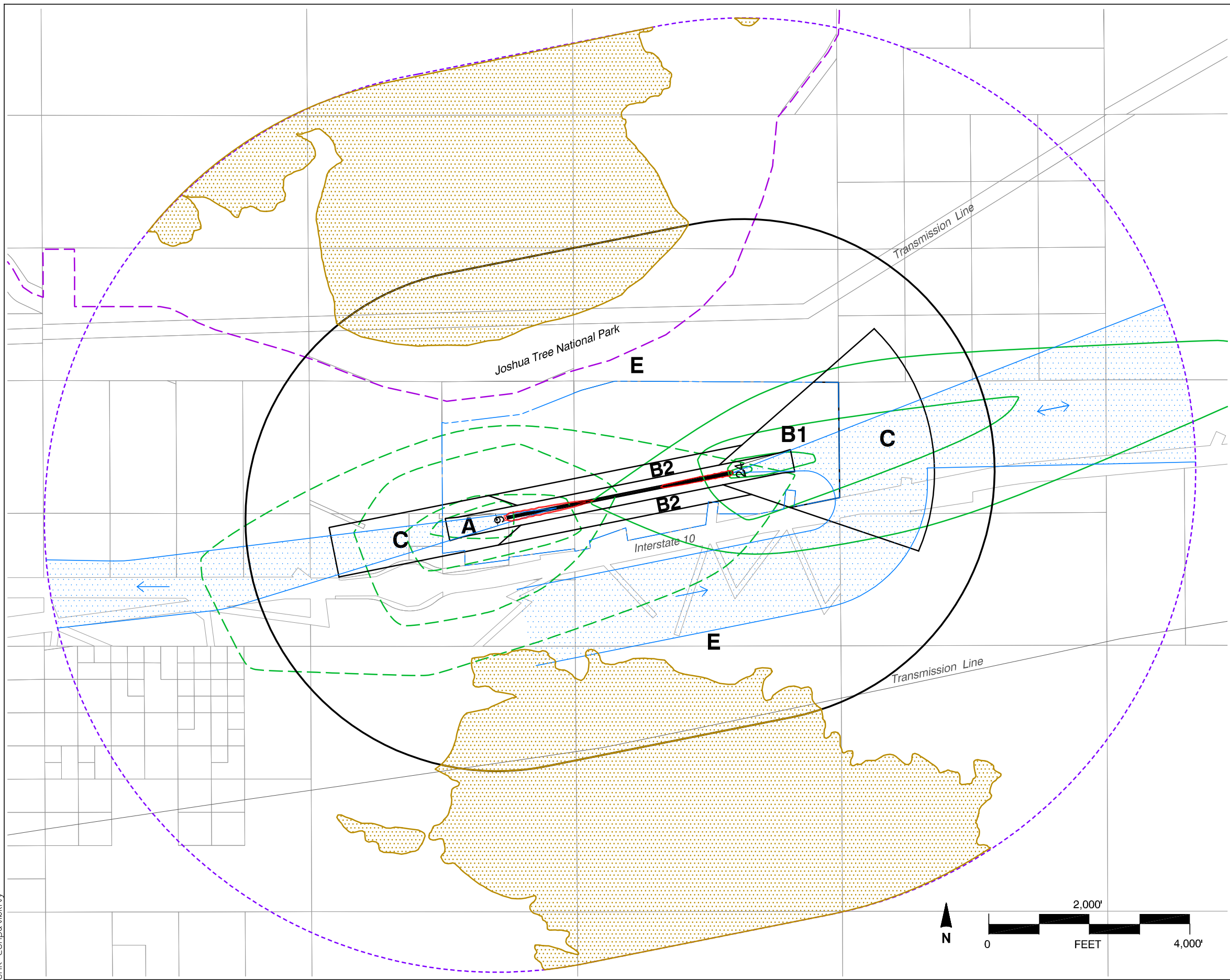
Airport Activity Data Summary
Chiriaco Summit Airport



CHR-compatibility

Exhibit CS-4

Future Noise Impacts
Chiriaco Summit Airport



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Noise and Overflight Compatibility Factors

- 55 dB CNEI (Future Average Annual Day)

- General Traffic Pattern Envelope (approximately 80% of aircraft overflights estimated to occur within these limits)

Safety and Airspace Compatibility Factors

- Aircraft Departure Accident Risk Intensity Contours* (Shown only for Takeoffs to the West)
- Aircraft Approach Accident Risk Intensity Contours* (Shown only for Landings from the East)
- FAR Part 77 Conical Surface Limits
- Terrain Penetration of FAR Part 77 Surfaces

Boundary Lines

- Airport Property Line
- Joshua Tree National Park

* Aircraft accident risk intensity contours are derived from nationwide accident location data in California Division of Aeronautics database. The contours show relative intensities (highest concentrations) of near-airport accidents in 20% increments. The contour shapes represent a wide range of general aviation airports and have not been modified to reflect the flight tracks for this airport.

Riverside County
 Airport Land Use Commission
 Riverside County
 Airport Land Use Compatibility Plan
 East County Airports Background Data
 (October 2004)

Exhibit CS-5

Compatibility Factors Map
 Chiriaco Summit Airport



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AIRPORT SITE

- ▶ *Location*
 - ▶ Eastern Riverside County
 - ▶ 30 miles east of Indio; 65 miles west of Blythe
 - ▶ Eastern edge of small community of Chiriaco Summit
- ▶ *Nearby Terrain*
 - ▶ Airport on desert floor (elevation 1,713 ft. MSL) at saddle between mountain ranges (Shavers Valley)
 - ▶ Cottonwood and Eagle Mountains to north; summit (elev. 5,350 ft.) 6 miles northwest
 - ▶ Orocopia Mountains to south; summit (elev. 3,816 ft.) 8 miles south

AIRPORT ENVIRONS LAND USE JURISDICTIONS

- ▶ *County of Riverside*
 - ▶ Located entirely within unincorporated Riverside County
- ▶ *National Park Service*
 - ▶ Joshua Tree National Park north of airport

STATUS OF COMMUNITY PLANS

- ▶ *Riverside County*
 - ▶ General Plan, a portion of Riverside County Integrated Project, adopted by Board of Supervisors Oct. 2003

EXISTING AIRPORT AREA LAND USES

- ▶ *General Character*
 - ▶ Primarily uninhabited desert
 - ▶ Joshua Tree National Park boundary, 0.5± mi. north
- ▶ *Runway Approaches*
 - ▶ West (Runway 6): Chiriaco Summit (approx. 2 dozen buildings—industrial, commercial, and residential) 1,500± feet from runway end; desert beyond
 - ▶ East (Runway 24): Undeveloped desert lands
- ▶ *Traffic Pattern*
 - ▶ Interstate 10 parallel to runway, 1,000 ft. south
 - ▶ Desert north and south

PLANNED AIRPORT AREA LAND USES

- ▶ *Riverside County*
 - ▶ West: Continuation of commercial designation for Chiriaco Summit community; open space rural with rural village beyond (overlay allows densities up to 8 dwelling units per acre)
 - ▶ South: Open space rural along freeway
 - ▶ East and North: Open space conservation habitat (no development)

ESTABLISHED AIRPORT COMPATIBILITY MEASURES

- ▶ *Riverside County General Plan*
 - ▶ Prohibit new residential uses, except single-family dwellings on legal residential lots of record, within airports' 60 dB CNEL contour as defined by ALUC (Policy N 7.4)
 - ▶ Safety compatibility zones and criteria from previous compatibility plan incorporated into General Plan
 - ▶ Review all proposed projects and require consistency with any applicable compatibility plan (LU 14.2)
 - ▶ Submit proposed actions and projects to ALUC as required by state law (Policy LU 1.9); other actions may be submitted on voluntary, advisory basis (LU 14.8)

Exhibit CS-6

Airport Environs Information

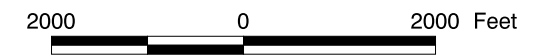
Chiriaco Summit Airport



Legend

- Airport Property Line
- Runway
- Compatibility Zones
- Very-High-Density Residential (>20 du/ac)
- High-Density Residential (14.1-20 du/ac)
- Medium-High-Density Residential (8.1-14.0 du/ac)
- Medium-Density Residential (5.1-8.0 du/ac)
- Low-Density Residential (2.1-5.0 du/ac)
- Very-Low-Density Residential (0.4-2.0 du/ac)
- Mobile Home Park
- High-Intensity Commercial/Office
- Low-Intensity Commercial /Office
- Office/Business Park
- Heavy Industrial
- Light Industrial/Warehousing
- Mixed Use
- Airport
- School
- Other Public/Institutional
- Parks & Recreation
- Rural Residential
- Agriculture
- Open Space/Conservation
- Federal Lands
- State Lands
- Indian Lands
- Unclassified

Note: This is combined and simplified from the following map source:
Riverside County General Plan (October 2003)



Riverside County
Airport Land Use Commission
Riverside County
Airport Land Use Compatibility Plan
East County Airports Background Data
 (October 2004)

Exhibit CS-7

General Plan Land Use Designations
Chiriaco Summit Airport Environs

**COUNTY OF RIVERSIDE:
GENERAL PLAN (2003) AND EASTERN COACHELLA VALLEY AREA PLAN****Residential Land Use**

- ▶ *Compatibility Zone A, B1, B2, C, and E*
 - › No inconsistencies noted

Non-Residential Land Use

- ▶ *Compatibility Zone A, B1, B2, C, and E*
 - › No inconsistencies noted

Other Policies

- ▶ *General Plan*
 - › Acknowledgement of ALUC policies
 - › Established ALUC 60 dB CNEL noise contour policy for new residential development
- ▶ *Zoning Codes*
 - › No height limit zoning established

Exhibit CS-8

General Plan Consistency Review (Preliminary)
Chiriaco Summit Airport Environs