

## Countywide Airspace Usage

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Riverside County is within one of the busiest and most complex sections of airspace in the United States, handling over 4.3 million operations annually. To better understand the magnitude of these operations and complexities of this system, **Map 1** depicts Instrument Flight Rule (IFR) operations for the six busiest airports in the area for a 24-hour period on January 26, 1996. This exhibit does not depict operations from the 14 airports in Riverside County Airport Land Use Compatibility Plan update.

### AIRSPACE STRUCTURE

Since the advent of aviation, nations have established procedures within their boundaries to regulate the use of airspace. Airspace is broadly classified as either “controlled” or “uncontrolled” in the United States. The difference between the two categories relates primarily to requirements for pilot qualifications, ground-to-air communications, navigation and traffic services, and weather conditions. Six classes of airspace have been designated in the United States. Airspace designated as Class A, B, C, D, or E is considered controlled airspace. Aircraft operating within controlled airspace are subject to varying requirements for positive air traffic control.

The airspace in Riverside County, as illustrated on **Map 2**, is constantly occupied by aircraft arriving and departing from other airports in the region. Frequently, overflights experienced in communities near Riverside County airports are not the result of operations at nearby airports, but from aircraft using airports outside Riverside County. After the preparation of this plan, additional approaches have been established for aircraft arriving at Los Angeles International Airport. These new approaches were not included as part of the map development process for this plan.

#### Class A Airspace

Class A airspace includes all airspace from 18,000 feet above mean sea level (MSL) to Flight Level (FL) 600 (approximately 60,000 feet MSL). This airspace is designated in 14 CFR Part 71.193 for positive control of aircraft. The Positive Control Area (PCA) allows flights governed only under IFR operations. The aircraft must have special radio and navigation equipment and the pilot must obtain clearance from an Air Traffic Control (ATC) facility to enter Class A airspace. In addition, the pilot must possess an instrument rating. Class A airspace covers the entire county above 18,000 feet MSL.

#### Class B Airspace

Class B airspace has been established at 29 high usage airports in the United States as a means of regulating air traffic in those areas. They are designated by a combination of enplaned passengers and volume of operations.

Class B airspace is designed to regulate the flow of uncontrolled traffic above, around, and below the arrival and departure airspace for high performance, passenger carrying aircraft at major airports. Class

B airspace is the most restrictive, controlled airspace routinely encountered by pilots operating under Visual Flight Rules (VFR) in an uncontrolled environment.

In order to fly in Class B airspace, the aircraft must have special radio and navigational equipment and must obtain air traffic control clearance. In addition, to operate within Class B airspace, a pilot must have at least a private pilot's certificate or be a student pilot who has met the requirements of 14 CFR 61.95, requiring special ground and flight training for Class airspace. Aircraft are also required to utilize a Mode C transponder within a 30 nautical mile range of the center of the Class B airspace. Class B airspace is not designated for any of the Riverside County airports. This airspace classification is reserved for airports with the greatest traffic volume in terms of instrument flight rules (IFR) operations and en-planed passengers, such as Los Angeles International Airport.

### **Class C Airspace**

The core of the Class C airspace is cylindrical and extends from the ground up to 4,000 feet AGL. This area has a radius of five nautical miles from the center of the airport. It is generally associated with airports served by radar approach control. In order to fly inside Class C airspace, aircraft must have two-way radio communications, an encoding transponder, and must have obtained ATC clearance. Pilots must have at least a student pilot's certificate to fly in Class C airspace. The airports in Riverside County within Class C airspace are Corona Airport and March Air Reserve Base.

### **Class D Airspace**

Class D airspace is controlled airspace surrounding airports with an Air Traffic Control Tower (ATCT). The Class D airspace typically consists of a cylinder with a horizontal radius of four or five nautical miles from the airport, extending from the surface up to a designated vertical limit. This limit is typically 2,500 feet above the airport elevation. If an airport has an instrument approach or departure, the Class D airspace extends along the approach or departure path. The airports in Riverside County that are within Class D airspace are: Flabob Airport, Palm Springs International Airport, and Riverside Airport.

### **Class E Airspace**

Airspace not designated as Class A, B, C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures.

The airports within Riverside County that are inside Class E airspace beginning at the surface are Blythe Airport and Jacqueline Cochran Regional Airport. Airports with Class E airspace beginning at 700 feet above the surface are Bermuda Dunes, French Valley and Hemet-Ryan Airports.

### **Class G Airspace**

Airspace not designated as Class A, B, C, D, or E is considered uncontrolled, or Class G airspace. Air traffic control does not have the authority or responsibility to exercise control over air traffic within this airspace. Class G airspace lies between the surface and the overlying Class E airspace (700 to 1,200 feet above ground level [AGL]).

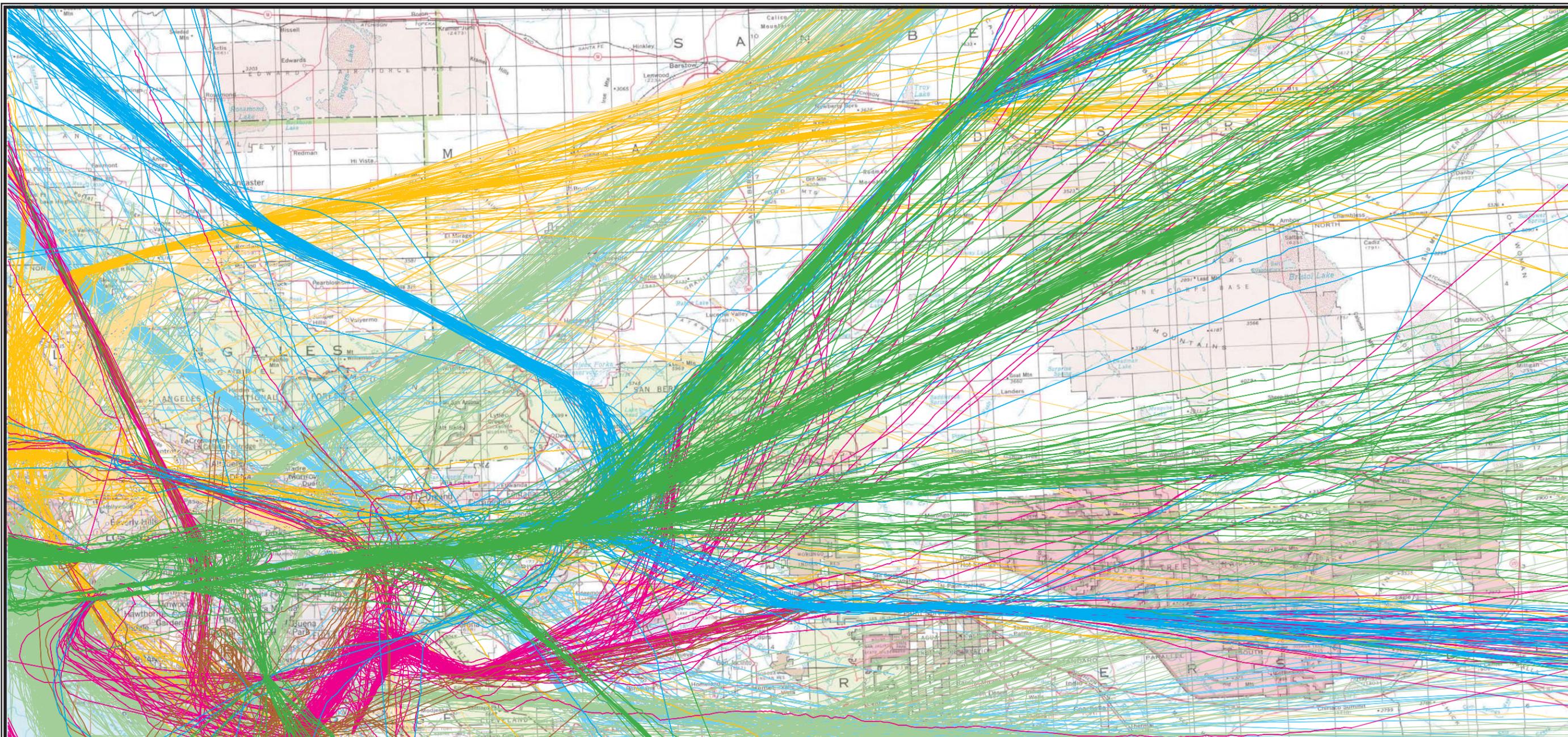
Additional rules regulate flight altitudes over congested residential areas, national parks, and outdoor recreational areas, which are often located under Class G airspace. The overall amount of Class G airspace is continuing to decline due to the need for more coordinated air traffic activity. The airports in Riverside County within Class G airspace are Banning, Chiriaco Summit, and Desert Center.

## **Special Use Airspace**

Special use airspace is defined as airspace where activities must be confined because of their nature or where limitations are imposed on aircraft not taking part in those activities. These areas are often reserved for military use and are designed to separate non-participating aircraft from military training operations.

Locations surrounding wilderness areas and national wildlife refuges area also considered special use airspace. These areas fall under the definition of “National Park”; therefore all aircraft are requested to maintain a minimum altitude of 2,000 feet above the surface of designated National Park areas. FAA Advisory Circular 91-36C defines the “surface” as the highest terrain within 2,000 feet laterally of the route of flight or the uppermost rim of a canyon or valley. There are several wilderness areas within Riverside County. Joshua Tree National Park being the largest, it is in the vicinity of Chiriaco Summit Airport, Jacqueline Cochran Regional Airport, Desert Center Airport and Palm Springs International Airport. There are also military and restricted flight areas within Riverside County. The Quail Military Operations Area is located north of Blythe Airport. The Kane and Abel Military Operations Areas are located south of Blythe, Desert Center, Chiriaco Summit, Jacqueline Cochran Regional, and Bermuda Dunes Airports. Additionally, there is a restricted flight area associated with Camp Pendleton located southwest of French Valley Airport.

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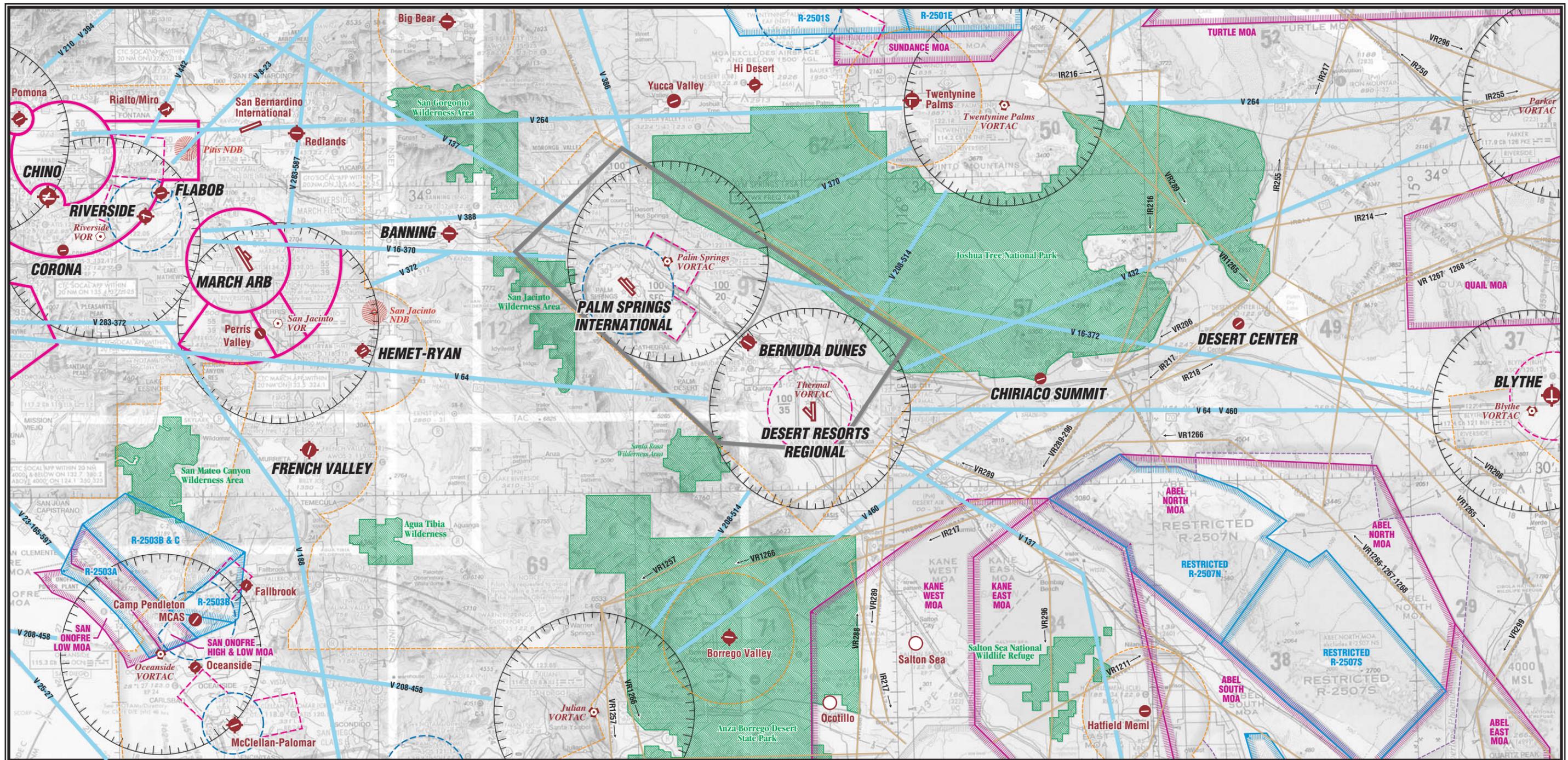
- |   |              |   |                |                             |
|---|--------------|---|----------------|-----------------------------|
|  | LAX Arrivals |  | LAX Departures | LAX - Los Angeles           |
|  | BUR Arrivals |  | BUR Departures | BUR - Burbank               |
|  | LGB Arrivals |  | LGB Departures | LGB - Long Beach            |
|  | ONT Arrivals |  | ONT Departures | ONT - Ontario               |
|  | SNA Arrivals |  | SNA Departures | SNA - John Wayne-Orange Co. |



Date of Observations: January 26, 1996

Source: U.S. Department of Transportation Federal Aviation Administration, September 1997

MAP 1  
ACTUAL ARRIVAL AND DEPARTURE TRACKS TO AND FROM AIR CARRIER AIRPORTS IN L.A. BASIN



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|---|---|--------------------------|--|
| Airport with other than hard-surfaced runways   | Wilderness Areas                                | VORTAC                   | Class D Airspace   |
| Airport with hard-surfaced runways 1,500' to 8,069' in length                                     | Non-Directional Radiobeacon (NDB)               | VOR                      | Class E Airspace   |
| Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069' | Compass Rose                                    | Military Training Routes | Class E Airspace with floor 700' above surface   |
|   | Military Operations Area (MOA)                  | Victor Airways           | Class E Airspace with floor 1200' or greater above surface that abuts Class G Airspace |
|   | Prohibited, Restricted, Warning and Alert Areas | Class C Airspace         | Terminal Radar Service Area (TRSA)   |



Source: Los Angeles Sectional Chart, US Department of Commerce, National Oceanic and Atmospheric Administration, December 25, 2003