Section II
California's Primary Commercial Service Hub Airports

State System Overview

Understanding how the system of airports works in California is not unique but can be a lengthy story given the State's rich aviation history. With history being beyond the scope of this report, the essence of the story is that activity at commercial service airports has a ripple effect on General Aviation (GA) airports. Commercial service hub airports affect Reliever airports who in turn affect other GA airports. A common result is to see increased commercial service activity displace GA activities to accommodate needed commercial space demands. The displaced GA aircraft may choose to first relocate to a nearby Reliever airport then to other nearby GA facilities.

Accommodating changes in commercial service activity is challenging because and GA activities are measured differently by the FAA which make side-by-side comparisons difficult. The difference in measurement also impacts funding programs. To try and simplify, the FAA typically looks at passenger enplanements at commercial service airports, but looks at based aircraft and supporting operations at GA airports. The reason for the distinction is that commercial service airports often produce a substantial amount of ground activity to support large numbers of daily passengers, plane movements, and cargo transfers, while parking few airplanes overnight. In contrast, GA airports typically have more permanent based aircraft, more business aviation tied to specific aircraft, but variable short-term visitor or itinerant activity.

The efficiency of a commercial service airport becomes increasingly compromised as it nears its ability to efficiently move planes, passengers, cargo, and GA aircraft on the ground simultaneously. This particular activity is commonly referred to as 'capacity'. Simply stated, congestion and deficiencies on the ground effect air operations. Adding to capacity pressures are demands from domestic and international business customers who have come to expect more "point to point" and "just-in-time" service from commercial carriers. As capacity constraints are addressed at commercial airports, often questioned is how potentially displaced GA aircraft from these commercial hubs will be absorbed in the statewide system of airports, and what these airports will need to accommodate increased aircraft and business activities. Meeting forecasted GA airport needs is the basis of this General Aviation System Needs Assessment (GASNA).

Given the above, one reason for preparing this GSNA is to try and stay ahead of capacity demands that could restrict transportation mobility and economic development in California. Given that safety will not be compromised as an airport reaches ground capacity, flights into and out of that airport become restricted. Restricting fights has an affect on regional mobility and economics. So before moving on to the Division's recommended capacity accommodating projects in Section III, it is important to first provide a brief overview of what the 13 largest commercial service airports in the State are doing. By monitoring their activity, aviation planners gain an understanding of what GA infrastructure needs may be warranted to accommodate a vibrant system of airports.

Commercial Service Airport Operations

There are many ways to look at commercial service operations, also referred to as Primary Hub and Nonprimary airport operations, with a simple approach being to consider the types of operations. Table 2-A organizes the operations into three broad aircraft operations categories, and for the purpose of this discussion excludes military operations.[1] What this table shows is that of the commercial service operations in the State, 50.8 percent are air carrier. The remaining 49.2 percent are activities that in many cases are being accommodated at GA airports. So as Primary Hub airports continue to serve scheduled passenger and heavy air cargo needs, air taxi service, light air cargo and regional tourism is being provided in various sized aircraft including personal and business aircraft alongside recreation aircraft at GA airports. This usage is graphically represented in Figure 2-A on the following page. Interesting to note is that a commercial airport as busy as John Wayne (GSNA) reports over 64 percent usage by GA aircraft and over 88 percent at Long Beach (LGB).

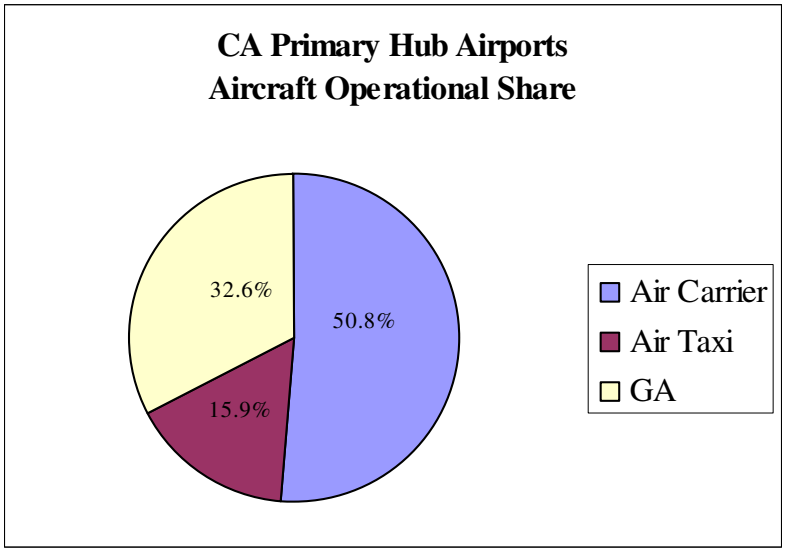
Table 2-A
California Commercial Service Airport Operations (FAA 5010)

Facility	Air Carrier	Air Taxi	GA	Total	12-Month Ending
LAX	71.0%	26.0%	2.6%	**485,194**	9/30/2008
SFO	73.3%	22.0%	4.0%	**387,710**	12/31/2008
LGB	7.3%	4.0%	88.5%	**356,970**	9/30/2008
OAK	53.4%	10.7%	35.2%	**269,631**	12/31/2008
SNA	31.4%	4.0%	64.5%	**267,751**	12/31/2008
SAN	81.7%	8.9%	9.3%	**222,485**	12/31/2008
SJC	60.0%	13.3%	26.7%	**194,560**	10/30/2008
SMF	69.2%	14.7%	14.7%	**145,626**	3/31/2009
ONT	60.7%	27.0%	12.2%	**124,242**	12/31/2008
BUR	59.3%	11.8%	28.7%	**121,067**	10/31/2008
SBA	3.6%	31.0%	63.9%	**112,088**	3/30/2009
FAT	11.2%	18.1%	64.9%	**104,195**	9/30/2008
PSP	15.5%	29.0%	53.8%	**72,876**	12/31/2008
CA Primary Hub Airports Totals	50.8%	15.9%	32.6%	**2,864,395**	

Source: GCR, Inc., *AirportIQ 5010 Airport Master Records and Reports*. February 1, 2010

[1] A small percent of military operations (0.7 percent) is excluded from Table 2-A.

Figure 2-A
California Primary Hub Airports: Aircraft Operational Share



Capacity Considerations

Unquestionably, commercial aviation plays a significant role in California's economy. Of the approximately 522 commercial Primary and Nonprimary airports of various sizes in the country, 13 Primary commercial service airports lie in California (see Table 2-A), with a total of 30 airports having the ability to accommodate passenger service as defined by the FAA's Part 139 regulations. The remaining Nonprimary airports are included in Section III with the other GA airports. As stated earlier, the ability of these airports to meet the needs of the majority of business and pleasure trips is largely dependent on their ability to meet the capacity needs of moving people, goods, and aircraft safely on the ground.

To better understand airport capacity issues, in April 2001 the FAA published the *Airport Capacity Benchmark Report* with an updated report published in September 2004. The FAA next completed the *Future Airport Capacity Task* (FACT 1) report that targeted the relationship between airline demand and airport runway capacity at 31 of the nation's busiest airports. This report was later updated in May 2007 with refined analytical tools and became referred to as FACT 2. By way of definition, capacity benchmarks are the estimated maximum number of flights an airport can routinely handle in an hour. The FACT 2 analytical team focused on 56 airports for more detailed study, including 35 Operational Evolution Partnership[2] (OEP) and 21 non-OEP airports, nineteen of which are in California. The FAA defines OEP as the "…NextGen integration and implementation mechanism. While it aligns to the long-term view provided by the NextGen Concept of Operations, the OEP focuses on solutions for the mid-term, defined

[2] OEP is fully described on the FAA's website at:
http://www.faa.gov/about/office_org/headquarters_offices/ato/publications/oep/partnership/

as 2012-2018. For this timeframe FAA projects a 27 percent increase in domestic air traffic; if we maintain the status quo, this translates to a 62 percent increase in delay. These mid-term solutions are critical for supporting a robust air transportation system in the next decade." OEP References to the report's findings on these airports are made in the discussion on each individual airport. To briefly highlight a few important notes from the FACT 2 study, ten of California's commercial service airports were identified as reaching capacity before 2025. These include:

Los Angeles Region:
- Bob Hope Airport (BUR)
- Long Beach – Daugherty Field (LGB)
- Los Angeles International (LAX)
- Ontario International (ONT)
- Palm Springs International (PSP)
- John Wayne – Orange County (SNA)

San Diego Region:
- San Diego International (SAN)

San Francisco Region:
- Oakland International (OAK)
- San Francisco International (SFO)
- Mineta/San Jose International (SJC)

Whereas capacity expansion plans are underway at nine airports for implementation by 2015, Los Angeles and San Francisco metropolitan areas may not have sufficient capacity to meet 2015 demand projections. Also, three airports will need additional capacity beyond what is already planned for 2015 and include Oakland, Long Beach, and John Wayne. Oakland continues to be constrained by geography, terrain and airspace issues, while Long Beach and John Wayne have legally enforceable operational and noise restrictions that limit operations. These enforcements pre-date ANCA and enjoy strong local support. It is assumed these constraints will remain in place with the operational levels forecasted for these airports in 2015 not likely to be reached. Demand for passenger and cargo service could go unsatisfied, or worse, be accommodated outside the State. It is important to note that the current recession could see the 2015 horizon pushed back to 2020, and the 2025 horizon pushed back to 2030. The current SF Bay Area Airport System Plan-Phase II forecast indicates that SFO may need additional capacity by 2025 but both Metropolitan Oakland International and Mineta San Jose International will not need additional capacity through 2030. Additional economic data would need to be researched to further support this consideration.

Of the 383 Primary Commercial Service Hub airports in the U.S., thirteen are in the State of California. Understandably, the busier airports are aligned with the higher population centers around the State, including the nine-county San Francisco Bay area (Caltrans District 4) and the Southern California basin incorporating Los Angeles, Orange, San Bernardino, San Diego and Ventura counties (Caltrans Districts 7, 8, 11, and 12). Four airports serve other large population centers including Fresno, Riverside, Sacramento,

and Santa Barbara. Collectively, these Reliever or Regional Airports play a critical role in California's and the nation's Air Transportation System. Statewide, enplanements at these thirteen Primary Commercial Service Hub airports are beginning to return to calendar year 2007 levels but at a very modest pace. Table 2-B lists the respective calendar year 2000 and 2008 enplanements and national ranking in terms of enplanements. We use this comparison because 2000 was the highest recorded passenger year for meeting capacity demand. California's Primary Hub airports served approximately 12% of all passengers enplaned at the nation's airports, with Los Angeles International and San Francisco International serving nearly half of the enplanements statewide. This table also shows that LAX, ranked third in the U.S. for enplanements, saw almost 29 million enplanements in 2008. This further exemplifies the point that as they grow to accommodate passenger service, other aviation services will need to be absorbed by airports in the region. This GSNA looks at who those other airports are and what they may need to meet this projected condition.

Table 2-B
Primary Commercial Service Hub Enplanements and U.S. Rank (CY 2000 and CY 2008)*

	Peak Year 2000 Enplanements	2008 Enplanements	Percent Change	U.S Rank 2000	U.S Rank 2008
LARGE HUB AIRPORTS					
Los Angeles International	32,167,896	28,861,477	-10.3%	3	3
San Francisco International	19,556,795	18,135,827	-7.3%	5	10
San Diego International	7,898,360	9,007,617	14.0%	29	26
MEDIUM HUB AIRPORTS					
Metropolitan Oakland International	5,196,451	5,583,748	7.5%	38	33
Norman Y. Mineta	6,170,384	4,780,264	-22.5%	35	39
Sacramento International	3,979,043	4,986,771	25.3%	44	37
John Wayne (Orange County)	3,914,051	4,464,380	14.1%	45	42
LA - Ontario International	3,197,795	2,998,110	-6.3%	52	56
Bob Hope (Burbank)	2,380,531	2,647,287	11.2%	62	60
SMALL HUB AIRPORTS					
Long Beach	335,225	1,413,251	321.6%	143	77
Palm Springs International	648,648	772,906	19.2%	99	97
Fresno Yosemite International	501,204	600,489	19.8%	112	109
Santa Barbara Municipal	393,664	413,929	5.1%	127	128
Total	86,340,047	84,666,056	-1.9%		

*Source: FAA DOT/TSC CY2000 and CY2008 ACAIS Database, 12/17/2009

Another activity the Division is monitoring is the FAA's requirement that large commercial airports have at least 1,000 feet of safety area on both ends of their runways by 2015. Hemmed in by surrounding land use patterns and geography, San Francisco and Los Angeles International Airport officials are exploring options to create safety buffers without incurring costly runway projects.

Addressing commercial airport constraints and congestion is one of general aviation's greatest attributes and something many of California's GA airports are ready to meet. With approximately 249 GA airports in the State, many have the ability, and desire, to relieve some of the land use and congestion issues from commercial airports. Some could absorb more passenger travel, others could accommodate more cargo, others more general aviation/business aircraft, and some could accommodate all three. The key is that the better we understand the congestion issues of our commercial partners, the better we can plan GA improvements that benefit the State's passenger, business and goods movement industries. With California consistently ranked as one of the top ten economies in the world, our GA facilities have long played an important, if not subdued, role in that distinction.

Also significant to the State's aviation system is the over 4 million tons of landed air cargo that passed through 25 commercial service and general aviation airports in 2008[3]. Aircraft landed weight amounted to just under 11.2 percent of all U.S. air cargo[4]. As passenger travel increases with a rebounding economy, the competition for passenger and air cargo space is projected to motivate passenger and cargo carriers based at Primary Hub airports to seek out capacity solutions to augment their operations. California, through its GA facilities, will have to fill that need or loose the business out of State. Further, as business aviation seeks to address the demand for point-to-point, and time-sensitive service, GA airports become the viable solution. The economic advantages of having a capable network of system-ready airports will be measured by the number of businesses that stay and grow in the State, and the local economies that receive the infusion of commerce from air transportation. In 2003, nearly nine percent of the State's Gross Domestic Product and jobs base were tied to aviation.[5] We should desire to see those numbers increase. But to do so requires the preservation and improvement of our existing GA system.

Part of the solution to demonstrating the necessity and value of our existing GA infrastructure may be a renewed recognition of their multiple use capabilities. Aviation has become such a part of our daily lives that it is often taken for granted or gone unrecognized. Yet with business travelers advocating for better point-to-point access and time-sensitive shipping alternatives, our network of smaller airports become the link to closing the time gap between large hub locations and final destination. This network links well with the commercial ground transportation system and can improve ground access conflicts inside higher population centers. Also, emergency service and medical providers enjoy shortened response times when not competing with commercial hub

[3] California Department of Transportation, Division of Aeronautics, 2008 California Air Cargo Statistics, April 3, 2009

[4] FAA 2008 CY ACAIS Boarding & All Air-Cargo Data Preliminary Reports. Note: ACAIS cannot be used to determine the weight of cargo moved. ACAIS does not report tons of landed cargo; it reports the maximum gross landed weight of specific aircraft and is only applicable to about 120 airports nationwide that file reports with FAA in order to qualify for cargo entitlement funds. In California only LAX, ONT, SAN, SFO, SJC, OAK, SMF, MHR (Sacramento Mather), and FAT qualify and report their cargo landing. Only cargo aircraft are reported.

[5] Economics Research Associates. *Aviation in California: Benefits to Our Economy and Way of Life*, June 2003.

congestion. Further, the siting of some military operations, such as California Air National Guard and Army National Guard training and aviation activities at public use GA airports, enjoys the benefit of not being located in heavily congested urban airports. Many of our GA facilities would have to be considered underutilized if their capabilities and readiness were more closely weighed against the operational limitations at near-capacity hub airports.

Primary Hub Airports

The following is summation of activities occurring at the Primary Hub airports around the state. Again, the purpose of having a general idea of what the commercial service airports are doing helps plan projects at GA facilities. To some degree it also supports the Division's goals of assisting Reliever airports meet the capacity reducing constraints from neighboring larger commercial service hub airports.

San Francisco Bay Area Primary Commercial Service Hub Airports

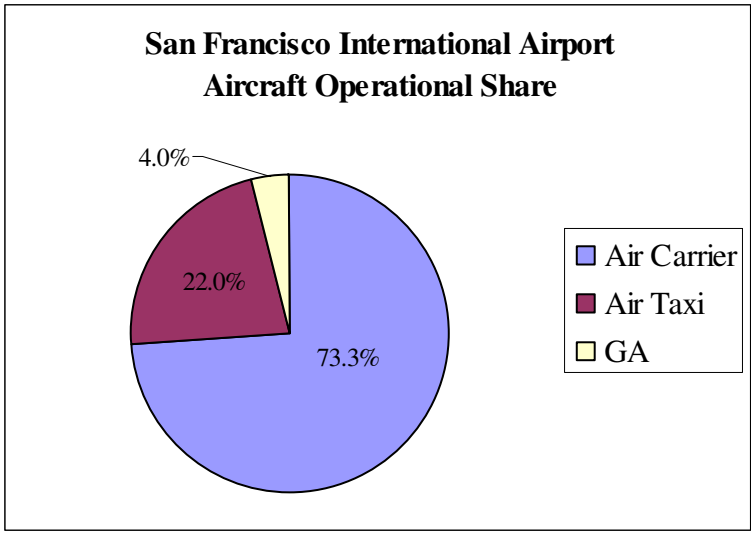
Regional Overview

Of the three Primary Commercial Service Hub airports in the region, San Francisco International (SFO) is the dominant facility and serves as a vital link between domestic and international operations. San Jose and Oakland have picked up an increasing share of international operations as SFO's operations capacity has approached maximum, but both remain primarily domestic hubs.

San Francisco International (SFO)

SFO is owned and operated by the County and City of San Francisco but located on 5,270 acres in San Mateo County. The airfield system occupies approximately 1,700 acres. Due to the proximity of parallel runways to one another, the airport faces recurring periods of reduced take-off and landing capacity when poor weather requires full instrument procedures, a frequent occurrence. During such times, operations are constrained to 30 per hour instead of the normal 60 per hour during good weaather. The FAA's 2001 Capacity Benchmark Report ranked SFO fourth worst in terms of the number of flights delayed more than 15 minutes, and second worst in total arrival delay. Additionally, the report stated demand was expected to grow faster than capacity, resulting in even more frequent and longer delays. The study also identified airline aircraft fleet mix as a critical determinant of capacity at SFO. Aircraft operations share is shown in Figure 2-B for 12-month reporting period ending December 31, 2008. Air cargo, which plays an important role in SFO's capacity considerations, was recorded by the FAA over the last 10 years to peak at 957,123.3 tons in 2000 declining to 543,197.6 tons in 2008. Officials at SFO undertook a runway reconfiguration study that proposed a number of alternatives to maximize operational capacity during times of inclement weather. Most of the preferred alternatives have significant environmental impacts on habitats near the airport, and thus were challenged thus placing studies on hold. Addressing this still-anticipated capacity shortfall remains a top priority for this facility.

Figure 2-B

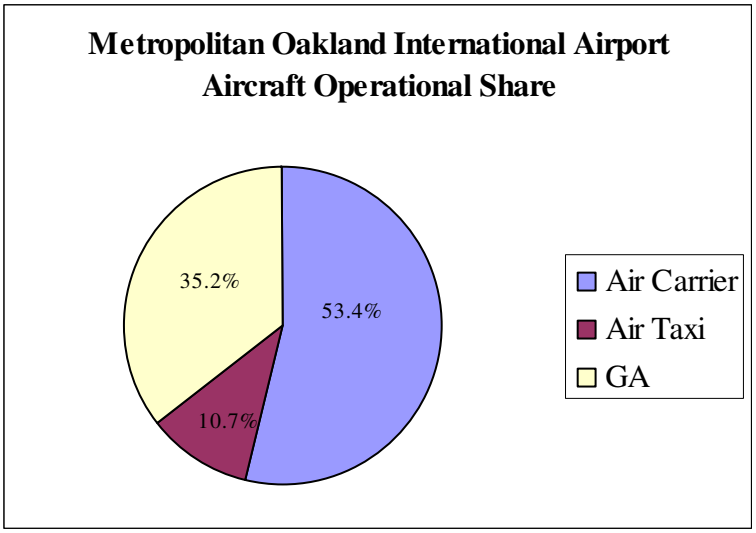


Passenger ground transportation in and out of the airport was provided some positive relief with the opening of the Bay Area Rapid Transit (BART) extension into the airport in June 2003. While a welcomed enhancement for passenger ground transportation, cargo operators are still constrained by a surrounding road system that operates at capacity for many hours each day. A constrained level of service (LOS) on this road network is expected to continue the discussion for a wider distribution of air cargo opportunities within the State.

Metropolitan Oakland International Airport (OAK)

OAK is located on 2,445 acres operated by the Port of Oakland. The airfield is unique in its layout and operation. The airport operates almost as two separate airports with their respective air traffic control towers. The south airfield consists of a single runway for air carrier aircraft while the north airfield has three runways for GA use. This share of aircraft use is shown in Figure 2-C for 12-month reporting period ending January 2, 2009. Air cargo at Oakland reached a 10-year high for peak tonnage shipped at 775,129.6 in 2000 declining to only 679,117.5 in 2008. On a smaller scale, Oakland faces many of the same capacity constraints as San Francisco International. Proposals for a second air carrier runway regularly suggest the option of filling in areas of the bay to accommodate a second air carrier runway. Naturally, the same environmental concerns voiced at SFO's reconfiguration study challenge Oakland's ability to further this alternative in the near term. Despite these constraints, OAK continues to push for efficiencies. They were successful in earning Leadership in Energy and Environmental Design (LEED) silver certification for the recently expanded Terminal 2 building, making it one of the few airports in the nation to achieve this level of certification.

Figure 2-C

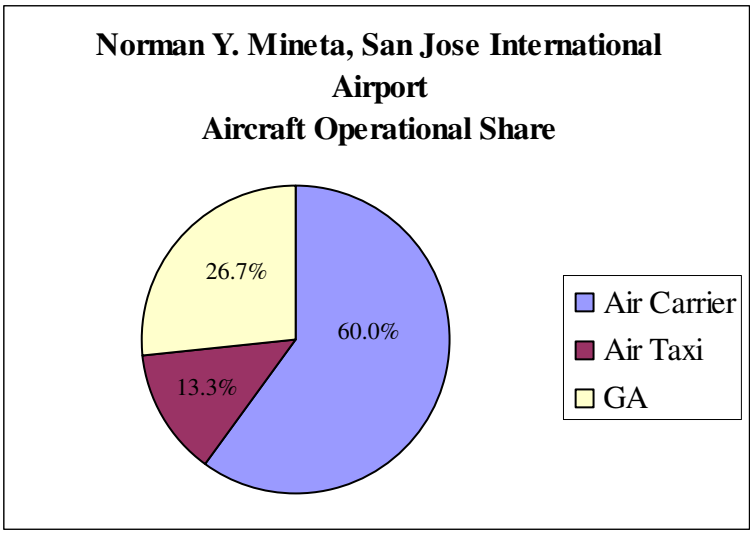


Ground access to the airport is dependable and available early morning though late evening from AC Transit. Their bus lines have several connections to BART stations and the Oakland Coliseum. Additionally, BART runs an AirBART shuttle between the Coliseum/Oakland Airport Station and the airport every 10 minutes during the day. As such, accessibility to the airport has improved and been made more accessible to the region.

Norman Y. Mineta San Jose International Airport (SJC)

Operated by the City of San Jose, SJC is located on approximately 1,000 acres and immediately surrounded by urbanization. This lack of additional land is a constraint towards future expansion and capacity mitigation scenarios. To accommodate the commercial aviation growth specified in its Master Plan, SJC will eliminate some of the existing GA facilities, convert existing non-aviation land uses to aviation purposes, and construct multi-level parking garages in place of surface parking. A recently completed extension to one runway's overrun areas at each end provides additional capacity by enabling large air carrier aircraft to operate at their maximum fuel and passenger loads on international flights. Also challenging capacity is their air cargo industry which peaked in 2000 at 161,966.7 tons, declining to 81,222.2 tons in 2008. Aircraft share percentages are shown in Figure 2-D for 12-month reporting period ending October 30, 2008.

Figure 2-D



Accommodating or growing additional GA and business class aircraft within Santa Clara County is also challenged. Reid-Hillview Airport is constrained by land use encroachments and below standard runway length and width. However, South County Airport possesses some interesting GA and multi-modal transportation opportunities that could improve ground access and goods movement. The airport has the ability and desire to expand its services and is located adjacent to heavily traveled State Route 101. Some air cargo destined for locations south of the airport may find benefits to avoiding Bay Area congestion by starting their truck-haul movements just outside the denser parts of Santa Clara County. This would aid airport and road congestion in San Jose and have regional air quality benefits. Further, South County Airport lies inside a mile of a true multimodal program. The airport is located just south of the San Martin Caltrain station, adjacent to three Valley Transportation Authority bus routes, as well as Monterey-Salinas Transit's Monterey-San Jose Express bus route. In short, major surface and air transportation modes are concentrated near each other but need additional support to

better link them together. A runway and taxiway extension and 24-hour on-field weather services are needed to augment the existing instrument approach.

Central California Area Primary Commercial Service Hub Airports

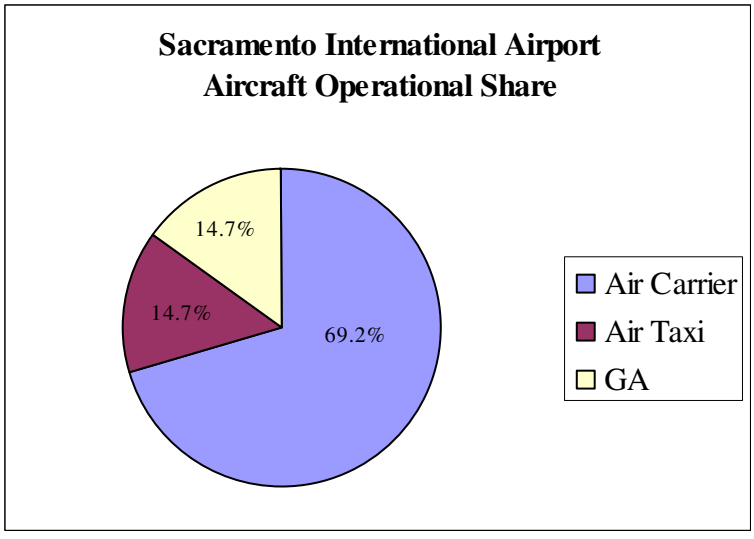
Regional Overview

The region has two Primary Commercial Hub airports: Sacramento International and Fresno Yosemite International. In addition to these facilities, the following six airports provide regularly scheduled passenger service in the region: Meadows Field, Modesto City-County, Merced Municipal, Stockton Metropolitan, Visalia Municipal, and Inyokern.

Sacramento International Airport (SMF)

Sacramento International Airport is the primary air carrier airport in the Central California Region. They began their new $1 billion Terminal C project in the summer of 2009 that is planned to provide up to 22 new passenger gates and a people mover. Construction is estimated to be completed in 2012. The airport completed a $70 million parking garage project in 2007. Their 10-year shipped air cargo tonnage peaked in 2000 at 173,447.5 tons declining to 77,100.1 in 2008. The percentage of aircraft share supported at this facility is shown in Figure 2-E for 12-month period ending March 31, 2009.

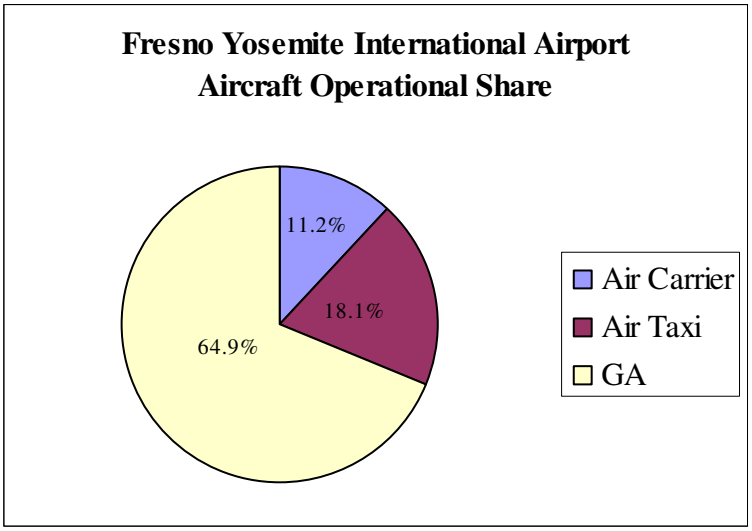
Figure 2-E



Fresno Yosemite International Airport (FAT)

Fresno Yosemite International Airport is the second busiest airport in the Central California Region with two runways. The growing presence of regional jet airliners throughout the industry has meshed with Fresno's growth process quite well and the airport has become an ever more important commercial and air cargo transportation node in central California. At the same time, the airport's well-rounded facilities and central location continue to appeal a wide range of general aviation operators. Their 10-year shipped peak air cargo tonnage occurred in 2000 at 21,428.2 tons and has since declined to 9,741.1 in 2008. The airport also hosts a fighter wing from the California Air National Guard and a major Army National Guard helicopter maintenance facility. They also have a noteworthy solar power program that is substantially reducing energy costs without compromising air safety or operations. The percentage of aircraft share at this facility is shown in Figure 2-F for 12-month period ending September 30, 2008.

Figure 2-F

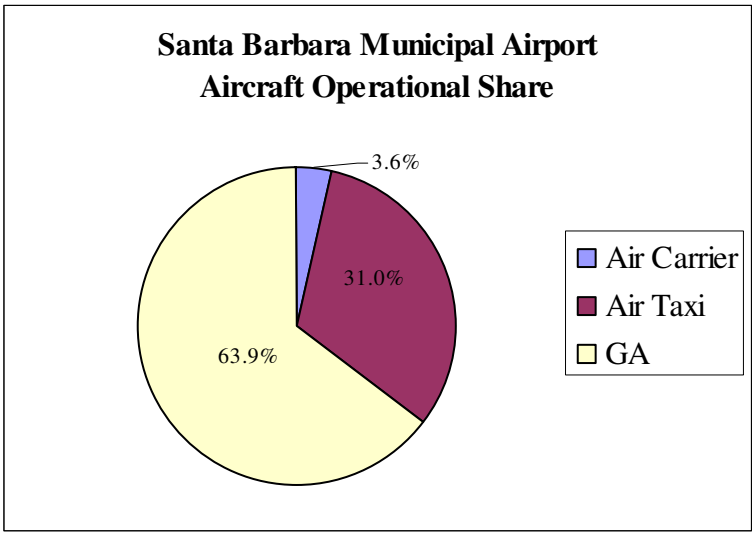


Central Coast Area Primary Commercial Service Hub Airports

Regional Overview

Of the 14 public-use airports in the Central Coast Region, Monterey Peninsula, San Luis Obispo, and Santa Barbara Municipal all have regularly scheduled passenger service. Santa Barbara Municipal, the region's only Primary Commercial Hub airport, has recently completed airfield improvements and has planned a terminal expansion. With both, the facilities' capacity is expected to be adequate for future growth. The percentage share of aircraft operations at SBA is shown on Figure 2-G for 12-month reporting period ending March 30, 2009.

Figure 2-G



Los Angeles / Desert Area Primary Commercial Service Hub Airports

Regional Overview

This region is the most populated in the State and supports the nation's largest and most complex regional aviation system in terms of total number of airports and aircraft operations.[6] Regional aviation capacity issues will reach the critical stage before any other region in California. The Southern California Association of Government's (SCAGs) 2004 Regional Aviation Plan, a component of the 2004 Regional Transportation Plan, projects air passenger demand in the SCAG region to more than double to 170 million passengers, and air cargo to triple to 8.7 million tons, by 2030. Even when factoring in recent recession considerations, this growth is significant in terms of mitigating capacity constraints so as to not preclude economic development.

Addressing such growth is not without challenges. SCAG indicates that there is limited available capacity at urban airports, different regional airspace requirements that mandate independent consideration, and a large number and variety of airport authorities and airport operators that are difficult to coordinate. This is because some airports are city-owned, some are county-owned, and some are run by multi-jurisdictional airport authorities. However, opportunities are available. Decentralized Inland Empire and North Los Angeles County airports, and former military air bases and joint use facilities, could provide some of the needed relief. Also, a greater focus on underutilized airports rather than expanding existing urban airports is getting some consideration.

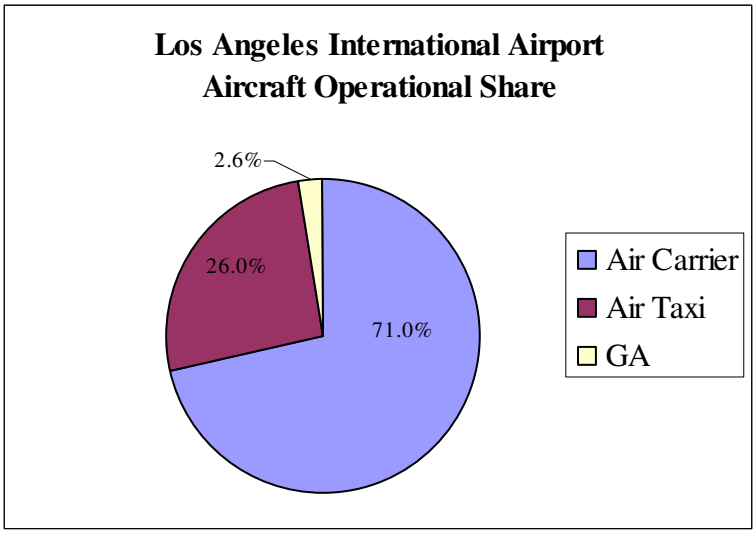
There are six Primary Commercial Hub airports in the Los Angeles Desert Region: Bob Hope, John Wayne-Orange County, Long Beach, Los Angeles International, Ontario International and Palm Springs International. There are also three former USAF air fields that will not be discussed in this version of the GSNA including, March Air Reserve/March Inland Port, Southern California Logistics Airport, and San Bernardino International Airport. While all three are capable of filling a variety of GA, air cargo, business, and commercial aviation needs, they may not truly fit the traditional classification of a hub airport. The Division will be working with these airports to help better identify projects that can be incorporated into future updates of the GSNA.

[6] Southern California Association of Governments (SCAG), 2010.

Los Angeles International Airport (LAX)

The FAA's 2004 Capacity Benchmark Report indicated that current capacity was generally adequate except during adverse weather conditions. However, projected growth at LAX was expected to significantly increase delays without technical improvements. The airports 2003 preferred master plan alternative would improve safety and security but limit growth of the airport. The percentage share of aircraft use at LAX is shown in Figure 2-H for reporting period ending September 30, 2008. The improvements related to capacity expansion (and safety) are mainly geared towards adding aircraft gates and increasing runway, taxiway, and gate dimensions to accommodate very large commercial jetliners. These jetliners include cargo freighters which brought in a 10-year high peak tonnage in 2000 at 2,266,266.0. This number has since declined to 1,797,780.0 tons in 2008. Their improvements are not expected to substantially increase capacity for general aviation uses but rather better accommodate existing users and meet modest long-term priorities. Addressing the airports narrower than preferred primary runway is not likely to be solved soon given site constraint barriers.

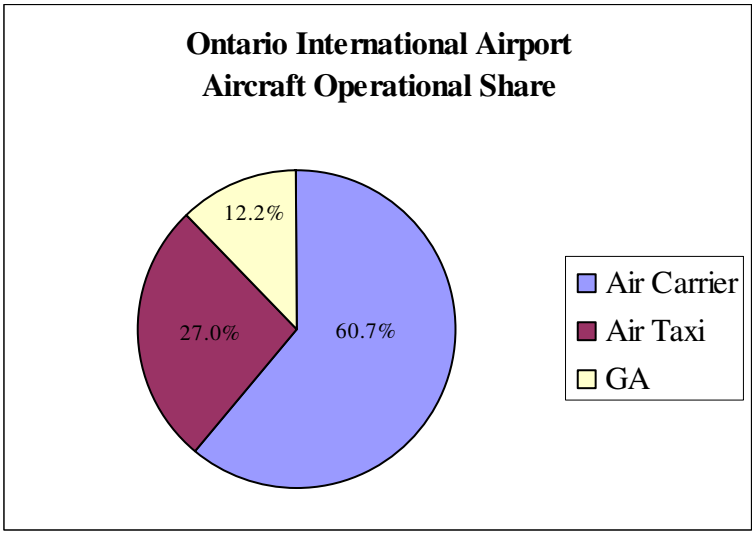
Figure 2-H



LA/Ontario International Airport (ONT)

The airport opened a $269 million 26-gate terminal complex in September 1998. This improvement helped ready the airport for the consensus among transportation experts that increased commercial traffic at LA/Ontario is not a matter of if, but when. Unfortunately, the challenges of attracting air carriers to underutilized LA/Ontario are plentiful, particularly with the Southern California Regional Airport Authority (SCRAA) voting to become dormant/inactive in April of 2009. Although LA/Ontario is constrained by the capacity of its two runways, estimated by SCAG to equate to a passenger limit of 31.6 MAP, the positive note for GA is that LA/Ontario has sufficient capacity to accommodate more business and air cargo activities and retains its commitment to meet that demand. The percentage of aircraft usage is shown in Figure 2-I for reporting period ending December 31, 2008. Air cargo capacity still exists noting their 10-year shipped tonnage high in 2004 at 602,420.0, declining to 481,283.0 in 2008.

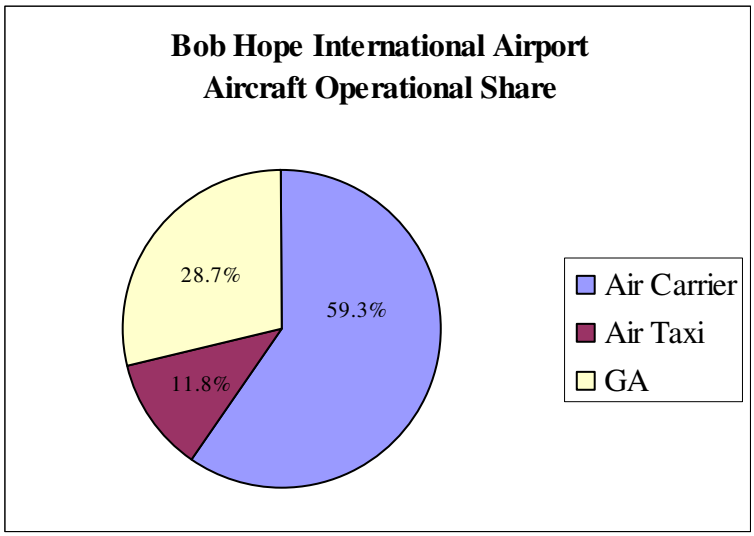
Figure 2-I



Bob Hope Airport (BUR)

This regionally important airport continues to be limited by physical constraints due in part to the dense urbanization that surrounds it, and operational constraints from having only 14 passenger gates, estimated by SCAG to equate to a passenger limit of 9.6 MAP. However, passengers using his facility enjoy the recently completed Metrolink commuter rail station that is in walking distance of the terminal. In addition to their commercial passenger service, cargo carriers shipped a peak tonnage of goods in 2006 of 57,652.4 tons declining to 42,908.9 in 2008. The percentage of aircraft shares at Bob Hope are shown in Figure 2-J for the 12-month reporting period ending October 31, 2008. In addition to the commercial air service noted above, BUR continues to serve as an important GA airport in the Los Angeles basin.

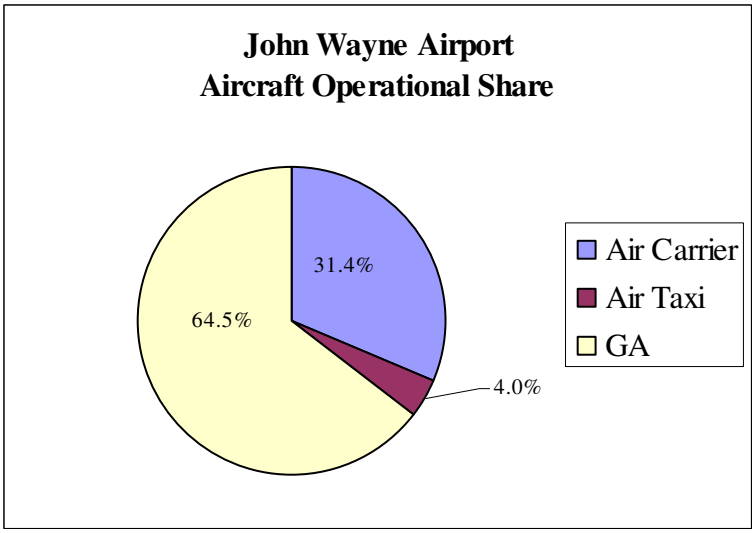
Figure 2-J



John Wayne Airport - Orange County (SNA)

Due to physical and operational constraints, SNA is only able to meet a small portion of the demand for domestic carrier, air cargo and GA service in the greater Orange County marketplace. They are one of two public use airports in the County, and the County's only Commercial Service Hub airport. Passenger and cargo capacity enhancements were further constrained in 2002 when County voters rejected a proposal to convert the nearby former El Toro Marine Corps Air Station to a public use airport. This will further challenge the region to accommodate high-demand business aviation, air cargo and ground access solutions between Los Angeles International and LA/Ontario. On a positive note, the airport inaugurated international service on April 9, 2010 with Air Canada who is initially providing year-round service to Toronto, with other destinations being discussed. John Wayne shipped 10-year peaked cargo tonnage at 24,103.0 in 2005 declining to 16,829.8 in 2008. The percentage of aircraft share at John Wayne is shown on Figure 2-K for 12-month period ending December 31, 2008. Despite regional challenges, SNA began the John Wayne Airport Improvement Program in July 2009 that will construct a new passenger Terminal C that includes a customs center, and an adjacent parking structure. Construction will continue until late 2011.

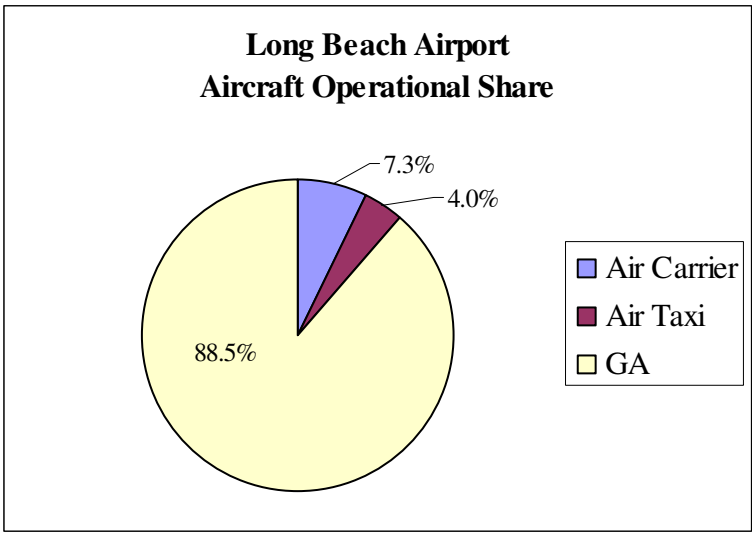
Figure 2-K



Long Beach Airport/Daugherty Field (LGB)

Long Beach continues to improve their existing infrastructure having completed the Taxiway Kilo project ahead of schedule in May 2009. While Boeing continues to build C-17 cargo planes adjacent to the north end of the airport, air cargo continues to be a viable component of the airport's shipping business with a 10-year peak of 58,606.5 tons in 2002 declining to only 44,352.6 in 2008. The percentage of GA aircraft using LGB is shown on Figure 2-L for 12-month reporting period September 30, 2008 and continues to have a strong presence. Despite the diverse capabilities of the airport, it remains constrained by a limited number of gate positions, as well as physical and legal obstacles to the number of flight operations. Advanced noise mitigation strategies may allow additional daily operations but these would not play a significant role in relieving regional congestion. The airport primarily views itself as a status quo airport serving well-defined service areas that will be minimally impacted by what other airports do.

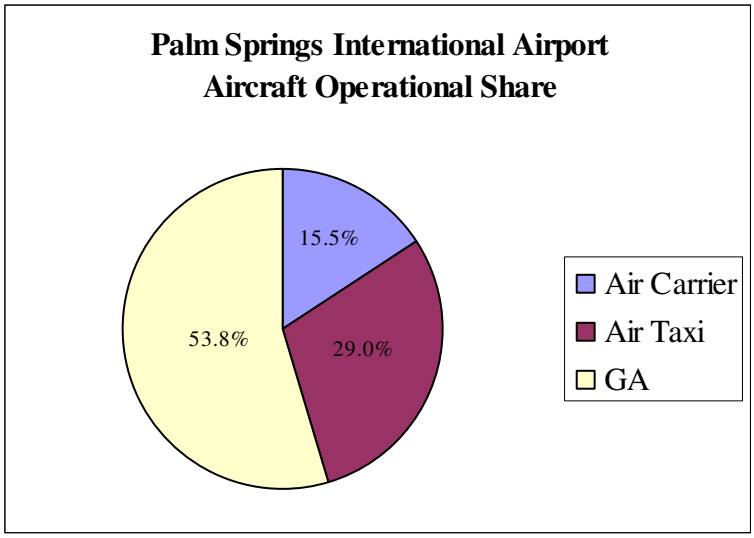
Figure 2-L



Palm Springs International Airport (PSP)

Despite a slow 2009 national economy, PSP is the eighth fastest growing airport in the United States with a record 1.53 million passengers using the facility in 2008. Air cargo saw a six-year peak in 2003 of 113.4 tons declining to 26.0 tons in 2008. Growth is coming largely from the increasing population in the Coachella Valley. Their percentage share of aircraft operations is shown on Figure 2-M for 12-month reporting period December 12, 2008. PSP also opened their $9 million regional terminal in November 2009 in time for the winter season market. The new terminal added nine gates and eliminated two temporary gates. The gates are designed to accommodate airliners with 100 seats or fewer. PSP continues to cautiously proceeding with Special Capital Projects such as taxiway seal coats, pavement maintenance and a Master Plan updates. Also, plans are underway to construct 3,600 sq. ft. box hangars for general aviation aircraft owners and users. This comes at a time when some carriers have had to reduce or cancel seasonal schedules. All things considered, PSP remains a viable alternative for increased carrier, GA and cargo operations in the greater Coachella Valley.

Figure 2-M



San Diego Area Primary Commercial Service Hub Airport

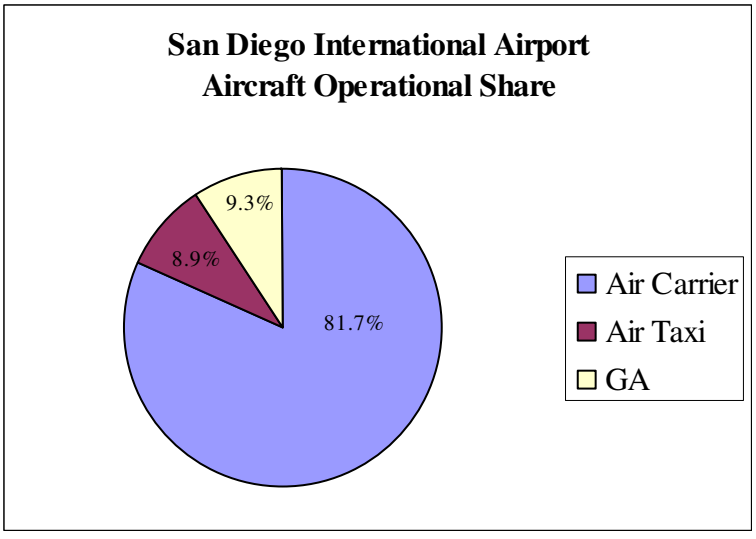
Regional Overview

San Diego International is the region's only Primary Commercial Hub airport. It and McClellan-Palomar are the only two airports in the region that receive regularly scheduled passenger service. San Diego County is anticipating a commercial airport capacity shortfall in the next 15 years. With several capable GA facilities in the region, these other facilities may be best leveraged to absorb some of the critical business aviation needs such as point-to-point, time-sensitive and emergency operations.

San Diego International Airport (SAN)

SAN completed their Aviation Activity Forecast Technical Report in 2004 for operations through 2030. The forecast included projected passenger traffic, aircraft operations, cargo activity, general aviation, and military operations. Air cargo shipments peaked in 2006 at 207,992.4 tons and declined to 133,913.1 in 2008. The airport's technical report estimates that around 2021 runway congestion will reach its peak and prevent additional growth. Constraining growth and capacity is the airport's distinction as the busiest one-runway commercial service airfield in the country in terms of runway utilization. Complicating matters is the dense urbanization that immediately surrounds the airport and a corresponding noise curfew. Percentage aircraft use at this facility is shown on Figure 2-N for 12-month reporting period ending January 1, 2009.

Figure 2-N



To meet growth and capacity issues, the San Diego County Regional Airport Authority Board launched the 'Green Build' project in July 2009. Formerly known as the Terminal Development Program, it is the largest project in the airport's history. It will include10 new jet gates, expanded dining and shopping options, as well as terminal, roadway, parking, airfield improvements, and a new USO facility. Construction will incorporate sustainable design

principles to meet LEED Silver certification. The Green Build project is expected to be completed in late 2012/early 2013.