LOS ANGELES WORLD AIRPORTS

LAX SPECIFIC PLAN AVIATION ACTIVITY ANALYSIS REPORT

CY 2019

Prepared June 2020

Los Angeles International Airport (LAX)
Specific Plan Compliance Review
Aviation Activity Analysis
January - December 2019

A. Purpose of this Report

Per Appendix A, Subsection 1(b) of the Los Angeles International Airport Specific Plan,[1] Los Angeles World Airports (LAWA) is required to prepare and submit an annual Aviation Activity Analysis Report to the Board of Airport Commissioners, the Department of City Planning, the Los Angeles Department of Transportation, and the Los Angeles City Council. The purpose of this report is: 1) to provide an analysis that identifies the current number of passengers, volume of air cargo and aircraft operations served at LAX; and 2) to compile aviation activity statistics for other airports in the Los Angeles region for monitoring and reporting purposes. This Aviation Activity Analysis Report has been updated for the calendar year 2019.

B. Summary and Conclusions

An analysis of LAX and regional air traffic activity for January through December 2019 led to the following conclusions:

- Preliminary data reported by individual airports indicates that LAX is the third busiest airport in the world by passenger volume and the second busiest in the United States.
- Passenger volume at LAX totaled approximately 88.07 million annual passengers (MAP) in 2019, a 0.61% increase compared to the previous year.
- Load factor for *departures* from LAX was 87.75% for domestic flights and 83.92% for international flights. This represents an increase in load factor of 1.42% for domestic flights and an increase in 1.87% for international flights when compared to 2018.
- Load factor for *arrivals* at LAX was 87.35% for domestic flights and 84.81% for international flights. This represents an increase in load factor of 1.50% for domestic flights and an increase in 3.41% for international flights when compared to 2018.
- Cargo volume at LAX totaled approximately 2.31 million tons in 2019, a 5.52% decrease over 2018.
- Commercial aircraft operations (landings and takeoffs) at LAX decreased by 2.34% in 2019 to 691,257 from 707,833 operations in 2018.
- LAX handled approximately 75.63% of passenger traffic among the six major commercial Southern California Association of Governments (SCAG) region airports in 2019, a 0.62% decrease from 2018.

[1] City of Los Angeles, Department of City Planning, LAX Specific Plan, adopted January 20, 2005, last amended September 8, 2017.

C. LAX Global and National Ranking

Table 1. Top 20 World Airports Ranked by Passenger Volume
(preliminary rankings as reported by individual airports, May 19, 2020)

U.S. Rank	Global Rank	Airport	Location	Total Passengers
1	1	Hartsfield–Jackson Atlanta International	Atlanta, Georgia, U.S.A.	110,531,300
	2	Beijing Capital International	Beijing, China	100,011,438
2	3	Los Angeles International	Los Angeles, California, U.S.A.	88,068,013
	4	Dubai International	Dubai, U.A.E.	86,396,757
	5	Tokyo Haneda International	Tokyo, Japan	85,505,054
3	6	O'Hare International	Chicago, Illinois, U.S.A.	84,649,115
	7	London Heathrow	London, United Kingdom	80,888,305
	8	Shanghai Pudong International	Shanghai, China	76,153,455
	9	Paris-Charles de Gaulle	Paris, France	76,150,009
4	10	Dallas/Fort Worth International	Dallas-Fort Worth, Texas, U.S.A.	75,066,956
	11	Guangzhou Bai Yun International	Guangzhou, China	73,386,153
	12	Amsterdam Schiphol	Amsterdam, Netherlands	71,706,999
	13	Hong Kong International	Hong Kong, China	71,415,245
	14	Seoul Incheon International	Incheon, Republic of Korea	71,204,153
	15	Frankfurt Airport	Frankfurt, Germany	70,556,072
5	16	Denver International	Denver, Colorado, U.S.A.	69,015,703
	17	Indira Gandhi International	New Delhi, India	68,490,731
	18	Singapore Changi Airport	Singapore	68,283,000
	19	Suvarnabhumi Airport	Bangkok, Thailand	65,421,844
6	20	John F. Kennedy International	Queens, New York	62,551,072

Data Source: Airports Council International (ACI) – World

Image Credit: Los Angeles World Airports (LAWA).

D. LAX Air Traffic Activity

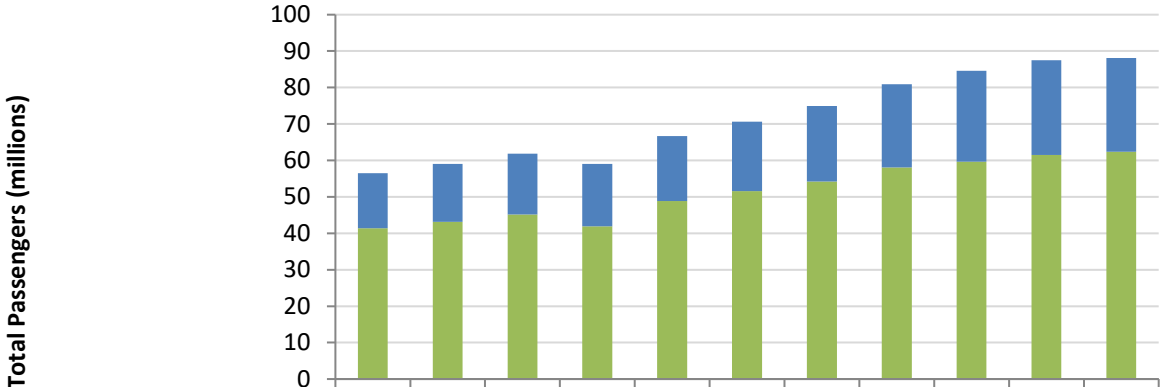
LAWA reports air traffic activity on a monthly basis, and keeps an archive of this activity online at https://www.lawa.org/en/lawa-investor-relations/statistics-for-lax. The subpages entitled "Air Traffic Ten Year Summary" and "Volume of Air Traffic" provides air passenger, air cargo and aircraft operations activity statistics for LAX for the calendar year 2019.

E. LAX Passenger Volume

As shown below in Figure 1, LAX passenger volume totaled approximately 88.07 million annual passengers (MAP) in 2018, a 0.61% increase over 2018 [2]

International passenger volume was approximately 25.70 MAP for 2019, a 1.37% decrease over the previous record high of 26.05 MAP in 2018. Domestic passenger volume is up 1.45% over 2018, from approximately 61.48 MAP in 2018 to 62.37 MAP in 2019.

Figure 1. LAX Annual Passengers 2009-2019



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
International Passengers	15.10	15.94	16.73	17.10	17.85	19.11	20.74	22.85	24.94	26.05	25.70
Domestic Passengers	41.42	43.13	45.13	41.92	48.82	51.56	54.20	58.07	59.61	61.48	62.37

Data Source: LAWA, Financial Management Systems, *Revenue Agreement Management System (*aka PROPworks™).

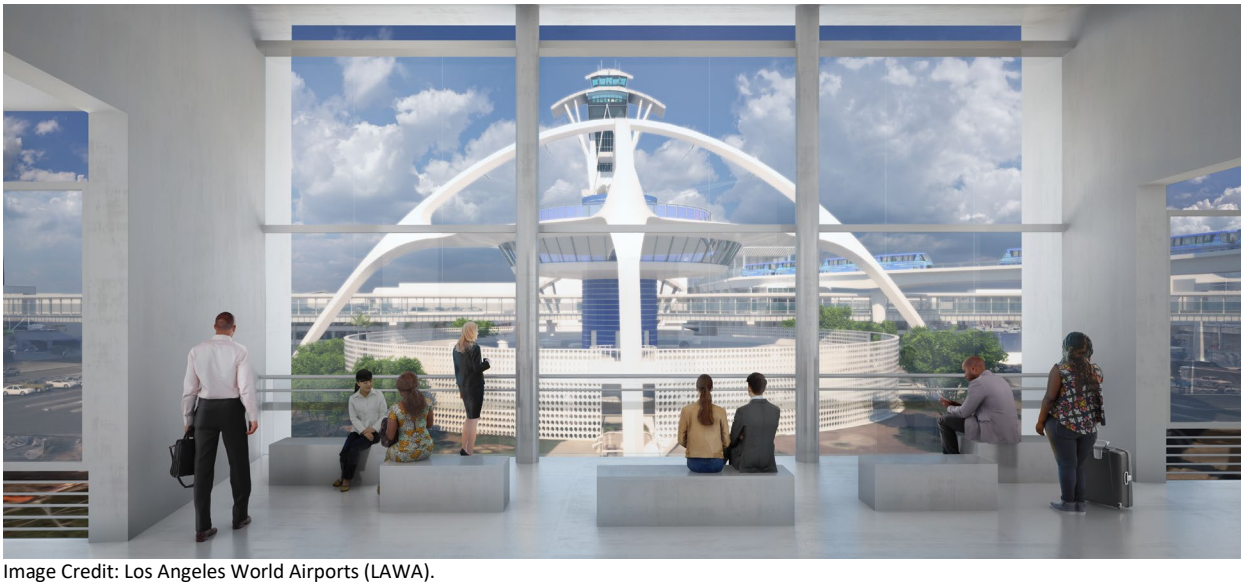


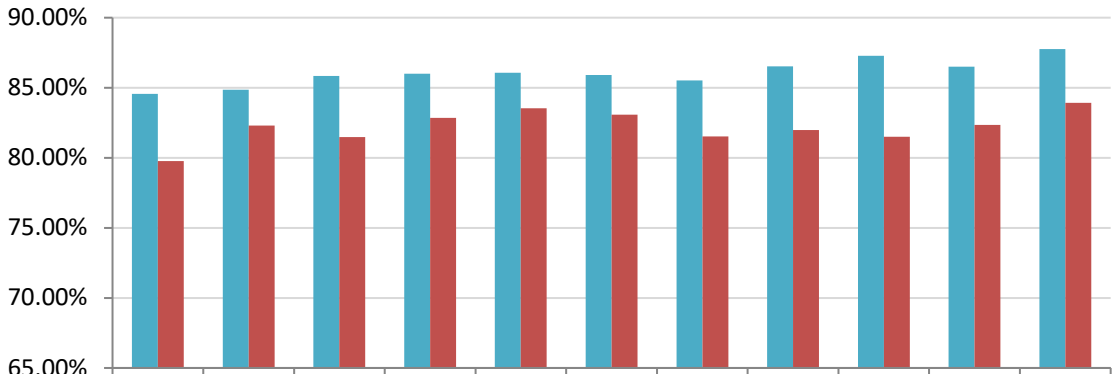
Image Credit: Los Angeles World Airports (LAWA).

[2] The 2018 LAX passenger numbers were revised by Los Angeles World Airports (LAWA).

F. Load Factor

Load factor is the proportion of available seats filled per aircraft that measures how much passenger carrying capacity is used. Load factor is calculated by dividing Revenue Passenger Miles[3] by the Available Seat Miles.[4] Figure 2a below shows the change in load factor for aircraft departing LAX for the past decade, while Figure 2b shows the change in load factor for aircraft arriving at LAX for the same timeframe.[5][6] In 2019, load factor for departures from LAX increased by 1.87% for international flights and increased by 1.42% for domestic flights. For arrivals at LAX load factor increased by 3.41% for international flights and increased by 1.50% for domestic flights when compared to 2018.

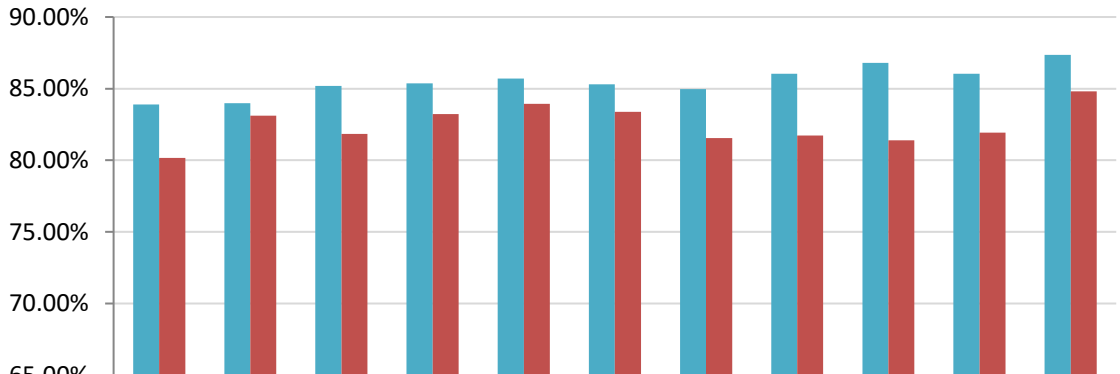
Figure 2a. Load Factor for *Departures* from LAX 2009-2019



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Domestic	84.56%	84.86%	85.85%	86.01%	86.07%	85.91%	85.51%	86.53%	87.27%	86.50%	87.75%
International	79.77%	82.30%	81.48%	82.86%	83.54%	83.07%	81.52%	81.97%	81.50%	82.35%	83.92%

Data Source: Bureau of Transportation Statistics T-100 Segment Data

Figure 2b. Load Factor for *Arrivals* to LAX 2009-2019



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Domestic	83.90%	83.99%	85.19%	85.38%	85.70%	85.31%	84.97%	86.03%	86.79%	86.04%	87.35%
International	80.16%	83.11%	81.84%	83.23%	83.94%	83.38%	81.54%	81.72%	81.39%	81.92%	84.81%

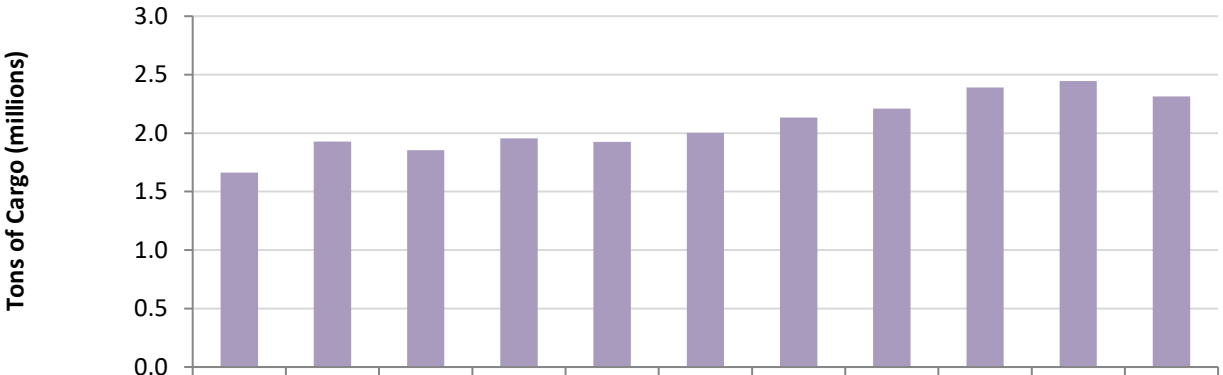
Data Source: Bureau of Transportation Statistics T-100 Segment Data

[3] Revenue Passenger Miles show the number of miles traveled by paying passengers. It is calculated as the number of paying passengers multiplied on a flight by the total distance traveled.
[4] Available Seat Miles is the total passenger capacity of an airline in miles and is captured by multiplying the total number of seats available on a flight and the total number of miles in which those seats were flown during scheduled flights.
[5] 2019 percentages are based on available data from January 2019 through September 2019.
[6] The load factor charts in the 2018 Aviation Activity Analysis Report erroneously had the international and domestic percentages transposed; they have been corrected in this Annual Report.

G. LAX Cargo Volume

Cargo volume in 2019 totaled approximately 2.31 million tons, a 5.52% decrease over 2018. Figure 3 below shows historical cargo volumes for LAX over the past ten years.

Figure 3. LAX Annual Cargo Tonnage 2009-2019



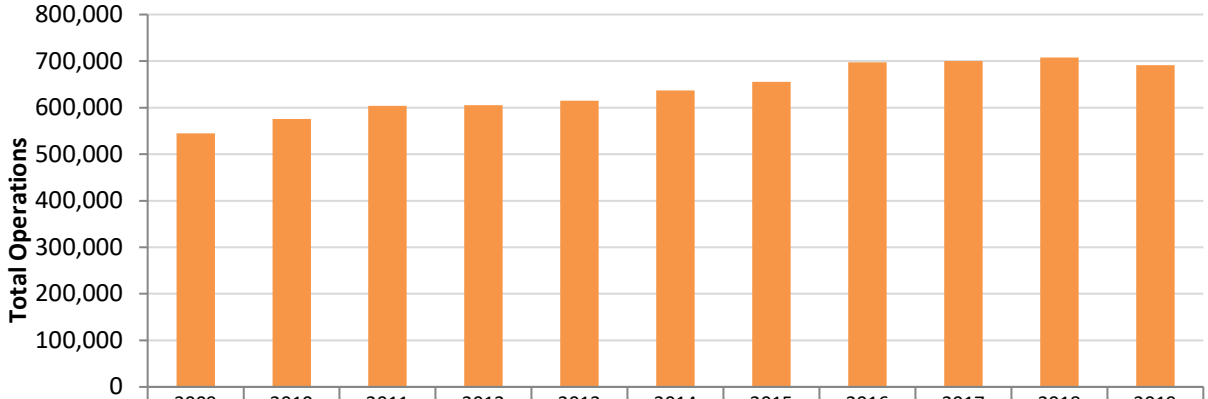
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Cargo Tonnage	1.66	1.93	1.85	1.96	1.93	2.00	2.13	2.21	2.39	2.45	2.31

Data Source: LAWA, Financial Management Systems, *Revenue Agreement Management System (*aka PROPworks™).

H. LAX Aircraft Operations

Figure 4 below shows the change in aircraft operations activity at LAX for the past decade. The number of aircraft operations (landings and takeoffs) totaled 691,257 in 2019, down 2.34% from 707,833 commercial operations in 2018.

Figure 4. LAX Annual Operations 2009-2019



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Operations	544,833	575,835	603,912	605,480	614,917	636,706	655,564	697,138	700,362	707,833	691,257

Data Source: LAWA, Financial Management Systems, *Revenue Agreement Management System (*aka PROPworks™).

I. Aviation Activity in the SCAG Metropolitan Planning Region

There are six major commercial airports in the Southern California Association of Governments (SCAG) metropolitan planning region:[7]

1) Hollywood Burbank Airport (BUR)
2) Los Angeles International Airport (LAX)
3) Long Beach Airport (LGB)
4) Ontario International Airport (ONT)
5) Palm Springs International Airport (PSP)
6) John Wayne Airport (SNA)

These airports served approximately 116.44 million annual passengers in 2019 (up 1.44% from 114.79 million annual passengers in 2018) and approximately 3.19 million tons of cargo/mail in 2019. The six major SCAG region airports had about 1.6 million aircraft operations in 2019. LAX handled approximately 75.63% of regional passenger volume among the six airports in 2019.

The tables below summarize 2018 and 2019 air passengers, cargo/mail tonnage, and aircraft operations totals by airport in absolute numbers (Table 2) and the percentage of total (Table 3). An aircraft operation is defined as an arrival or departure of one aircraft at an airport.

Table 2. 2018 and 2019 Aviation Activity at the Six Major SCAG Region Airports

Airport	2019			2018[8]		
	Passengers	Cargo/Mail (Tons)	Total Operations	Passengers	Cargo/Mail (Tons)	Total Operations
BUR	5,983,737	53,024	146,095	5,263,972	54,704	132,023
LAX	88,068,013	2,313,247	691,257	87,533,177	2,446,137	707,833
LGB	3,584,203	23,281	304,357	3,884,857	23,848	256,254
ONT	5,583,732	781,993	101,135	5,115,894	751,529 [9]	100,454
PSP	2,563,955	217	58,579	2,327,018	198	57,665
SNA	10,656,986	17,703	301,098	10,664,038	19,543	316,783
Total	**116,440,626**	**3,189,464**	**1,602,521**	**114,788,956**	**3,295,959**	**1,571,012**

Data Source: Individual airport's statistical reports and correspondence, FAA ATADS, and SCAG.

Table 3. 2018 and 2019 Aviation Activity at the Six Major SCAG Region Airports (by percentage of total)

Airport	2019			2018[10]		
	Passengers	Cargo/Mail (Tons)	Total Operations	Passengers	Cargo/Mail (Tons)	Total Operations
BUR	5.14%	1.66%	9.12%	4.59%	1.66%	8.40%
LAX	75.63%	72.53%	43.14%	76.26%	74.22%	45.06%
LGB	3.08%	0.73%	18.99%	3.38%	0.72%	16.31%
ONT	4.80%	24.52%	6.31%	4.46%	22.80%	6.39%
PSP	2.20%	0.01%	3.66%	2.03%	0.01%	3.67%
SNA	9.15%	0.56%	18.79%	9.29%	0.59%	20.16%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Data Source: Individual airport's statistical reports and correspondence, FAA ATADS, and SCAG.

[7] The SCAG region encompasses Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial Counties.
[8] The 2018 passenger and operations numbers in Table 3 were revised to reflect updated data published and/or provided by each airport, the FAA, and/or SCAG.
[9] The 2018 cargo and operations data for ONT was erroneously transposed in the 2018 Aviation Activity Report and has been corrected in this Annual Report.
[10] The 2018 percentages in Table 4 were recalculated with the updated/correct 2018 numbers in Table 3.

Table 4 below shows each airport's share of regional air passenger traffic from 1999 to 2019.

Table 4. Share of Passenger Activity at the Six Major SCAG Region Airports from 1998-2018 (by percentage of total)[11]							
Year	**LAX**	**ONT**	**LGB**	**SNA**	**BUR**	**PSP**	**Regional Total**
1999	75.4%	7.7%	1.0%	8.8%	5.6%	1.5%	100.0%
2000	76.1%	7.6%	0.7%	8.8%	5.3%	1.4%	100.0%
2001	75.2%	8.2%	0.7%	8.9%	5.5%	1.4%	100.0%
2002	72.2%	8.4%	1.9%	10.2%	5.9%	1.4%	100.0%
2003	69.7%	8.3%	3.6%	10.8%	6.0%	1.6%	100.0%
2004	70.5%	8.1%	3.4%	10.8%	5.7%	1.6%	100.0%
2005	69.6%	8.2%	3.4%	10.9%	6.2%	1.6%	100.0%
2006	69.6%	8.0%	3.1%	11.0%	6.5%	1.7%	100.0%
2007	69.3%	8.0%	3.2%	11.1%	6.6%	1.8%	100.0%
2008	70.5%	7.3%	3.4%	10.6%	6.3%	1.8%	100.0%
2009	71.5%	6.2%	3.7%	11.0%	5.8%	1.9%	100.0%
2010	72.5%	5.9%	3.7%	10.6%	5.5%	1.8%	100.0%
2011	73.7%	5.4%	3.7%	10.3%	5.1%	1.8%	100.0%
2012	74.2%	5.0%	3.7%	10.3%	4.7%	2.0%	100.0%
2013	75.4%	4.5%	3.3%	10.4%	4.3%	2.0%	100.0%
2014	76.2%	4.4%	3.0%	10.1%	4.2%	2.1%	100.0%
2015	76.7%	4.3%	2.6%	10.4%	4.0%	1.9%	100.0%
2016	77.3%	4.1%	2.7%	10.0%	4.0%	1.9%	100.0%
2017	76.8%	4.1%	3.4%	9.5%	4.3%	1.9%	100.0%
2018	76.3%	4.5%	3.4%	9.3%	4.6%	2.0%	100.0%
2019	75.6%	4.8%	3.1%	9.2%	5.1%	2.2%	100.0%

Data Source: Individual airport's statistical reports and correspondence, FAA ATADS, and SCAG.

Image Credit: Los Angeles World Airports (LAWA).

[11] Percentages are rounded to the nearest tenth.