

# CHAPTER 2

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## Aviation Activity Forecasts

### 2.1 Introduction

14 CFR Part 150 requires that noise exposure maps (NEMs) be prepared for two scenarios—existing conditions and conditions five years into the future. Each map reflects the annual average number of daily aircraft operations for the specified year. Typically, data for the most recent full calendar year for which data are available at the time the maps are prepared are used to represent existing conditions. In this 14 CFR Part 150 NEM Update, operations data for calendar year 2013 were used to represent the baseline condition in 2015 (the year of submittal of the NEMs to the FAA), and forecast operations in 2020 were used to represent five-year future conditions. Annual average day (AAD) operations and aircraft fleet mix data for the existing and future conditions is provided in Chapter 4.

Because the number of operations on the average day of the year (i.e., AAD operations) is determined by dividing the total number of operations throughout the year by 365, the number of aircraft operations on any given day at Los Angeles International Airport will be higher than the average number on some days and lower than the average number on other days. Factors that typically cause fluctuations in the daily number of aircraft operations include weekly, monthly, and seasonal variations in demand, weather conditions, patterns of tourism or business travel, and the economy.

Actual aircraft operations data for calendar year 2013 were used to develop the 2015 NEM. Aviation activity forecasts are used for the purpose of preparing future noise exposure map(s) in a 14 CFR Part 150 study. LAWA and its consultants submitted a technical memorandum (dated September 2, 2014) to the FAA on September 4, 2014 that recommended using the FAA’s 2014 Terminal Area Forecast (TAF)<sup>1</sup> to prepare the 2020 NEM for LAX. The FAA approved the use of the 2014 Terminal Area Forecast for the 14 CFR Part 150 NEM Update on October 9, 2014. The September 2, 2014 technical memorandum and the letter from the FAA approving the use of the 2014 TAF in the 14 CFR Part 150 NEM Update are provided in **Appendix E**.

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<sup>1</sup> U.S. Department of Transportation. Federal Aviation Administration. *2014 Terminal Area Forecast (TAF)*. February 2014.

## 2.2. Historical Data for LAX

**Table 2-1** presents historical aircraft operations data for LAX for calendar years 2000 through 2013. **Table 2-2** presents historical passenger statistics for LAX for calendar years 2000 through 2013. As shown in Tables 2-1 and 2-2, LAX aircraft operations and passenger numbers peaked in 2000. The 2001/2002 economic recession, the September 11, 2001 terrorist attacks, the Iraq War, and the 2008/2009 economic recession all served to weaken demand for air travel between 2001 and 2010 at LAX. Since 2010, the number of aircraft operations at LAX and the total number of passengers have grown steadily. In 2013, LAX served nearly 66.7 million passengers, processed more than 1.9 million tons of air cargo valued at over \$91.6 billion, and handled 614,917 aircraft operations (landings and takeoffs).

**TABLE 2-1**  
**AIRCRAFT OPERATIONS AT LOS ANGELES INTERNATIONAL AIRPORT – 2000 TO 2013**

Calendar Year	Itinerant				Local		Total Operations
	Air Carrier	Air Taxi	General Aviation	Military	Civil	Military	
2000	565,705	198,567	16,969	2,300	143	0	783,684
2001	524,067	196,140	16,402	2,069	1	0	738,679
2002	449,207	177,069	16,407	2,171	0	0	644,854
2003	434,021	171,323	15,111	2,487	423	5	623,370
2004	458,543	179,323	13,997	2,924	0	0	654,787
2005	454,920	177,951	14,983	2,592	90	3	650,539
2006	463,341	174,745	15,991	2,609	151	5	656,842
2007	467,193	193,930	17,217	2,614	0	0	680,954
2008	453,232	150,561	16,397	2,316	0	0	622,506
2009	438,059	86,919	16,797	3,058	0	0	544,833
2010	455,340	97,723	20,050	2,712	10	0	575,835
2011	473,282	109,885	18,355	2,390	0	0	603,912
2012	481,338	103,159	18,334	2,649	0	0	605,480
2013	501,598	92,624	18,226	2,469	0	0	614,917

NOTE: One aircraft operation is equivalent to one aircraft landing or one aircraft takeoff.

SOURCE: Federal Aviation Administration. *Air Traffic Activity Data System (ATADS)*. December 2014.

**TABLE 2-2**  
**PASSENGER STATISTICS FOR LOS ANGELES INTERNATIONAL AIRPORT – 2000 TO 2013**

Calendar Year	Enplaned Passengers	Deplaned Passengers	Total Passengers
2000	33,836,077	33,467,105	67,303,182
2001	31,007,930	30,598,274	61,606,204
2002	28,181,481	28,042,362	56,223,843
2003	27,544,606	27,438,232	54,982,838
2004	30,343,873	30,360,695	60,704,568
2005	30,649,324	30,840,074	61,489,398
2006	30,500,130	30,540,936	61,041,066
2007	31,244,261	31,194,322	62,438,583
2008	29,930,985	29,884,661	59,815,646
2009	28,288,211	28,232,632	56,520,843
2010	29,605,542	29,463,867	59,069,409
2011	30,923,005	30,939,047	61,862,052
2012	31,857,135	31,830,986	63,688,121
2013	33,335,489	33,332,130	66,667,619

SOURCE: Los Angeles World Airports, December 2014.

## 2.3 The 2014 Terminal Area Forecast

The TAF is an unconstrained forecast of future demand for an airport or air traffic facility which is used by the FAA to project future staffing and facility needs. The TAF is re-indexed each year based on activity that occurred during the previous federal fiscal year (October 1<sup>st</sup> through September 30<sup>th</sup>). While the TAF includes a projection of air carrier and commuter passengers, aircraft operations are of primary interest for the purposes of noise modeling. The current TAF was issued by the FAA in February 2014. LAX's portion of the TAF is presented in **Table 2-3**. The 2014 TAF projects an increase in air carrier and air taxi activity at LAX of approximately 73,300 operations between 2015 and 2020. Total aircraft operations at LAX are expected to increase by approximately 74,000 during the same period from 631,173 operations to 705,254 operations.

**TABLE 2-3**  
**FAA TERMINAL AREA FORECAST – OPERATIONS**  
**LOS ANGELES INTERNATIONAL AIRPORT**

Year (Federal Fiscal)	Air Carrier	Air Taxi	General Aviation	Military	Total
2015	513,784	96,263	18,592	2,534	631,173
2016	526,526	97,541	18,755	2,524	645,346
2017	539,793	99,113	18,919	2,514	660,339
2018	553,469	100,423	19,085	2,504	675,481
2019	567,541	101,449	19,252	2,494	690,736
2020	581,708	101,641	19,421	2,484	705,254

SOURCE: Federal Aviation Administration. *2014 Terminal Area Forecast (TAF)*. February 2014.