

# Quarterly Noise Report

Prepared For:  
California Department of Transportation (Caltrans)  
Division of Aeronautics

1st Quarter 2019  
January 1, 2019 – March 31, 2019



Airport Noise Office

June 1, 2019



**Quarterly Noise Report**  
**1<sup>st</sup> Quarter 2019**  
**(January 1, 2019 through March 31, 2019)**

On May 24, 2012, the California Department of Transportation (Caltrans), Division of Aeronautics, confirmed via a correspondence letter that the County of Santa Clara verified Norman Y. Mineta San Jose International Airport (SJC) achieved a zero noise impact area pursuant to the California Code of Regulations, Title 21 (Public Works), Division 2.5 (Division of Aeronautics), Chapter 6 (Noise Standards), Article 1 (General), Section 5012 (Airport Noise Standard) as of its 2<sup>nd</sup> Quarter 2011 Quarterly Noise Report. The letter went on to state that having met the standard, SJC no longer requires a variance.

This Quarterly Noise Report for the 1<sup>st</sup> Quarter of 2019 was prepared by the Airport Noise Office at Norman Y. Mineta San Jose International Airport (SJC), in accordance with the California Noise Standards (California Code of Regulations, Title 21, Section 5000 et seq.).



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**Summary of Statistical Information for the California Department of Transportation (Caltrans) Division of Aeronautics**

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1.	Size of Noise Impact Area as defined in the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6): 2,185 Square Miles (0 Square Miles of Incompatible Land Uses Within the Noise Impact Area )
2.	Estimated number of dwelling units included in the Noise Impact Area as defined in the Noise Standards*: 1,107 (0 Dwelling Units of Incompatible Land Uses Within the Noise Impact Area)
3.	Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards*: 3,592 (0 Population of Incompatible Land Uses Within the Noise Impact Area )
4.	Identification of the aircraft type having the highest takeoff noise level operating at this airport together with the estimated number of operations by this aircraft type during the calendar quarter reporting period: Cessna Citation X (C750); 857 Departure Operations
5.	Total number of aircraft operations during the calendar quarter: (Not Mandatory) 48,512
6.	Number of Air Carrier operations during the calendar quarter: (Not Mandatory) 34,272
7.	Percentage of Air Carrier operations by aircraft certificated under Federal Aviation Regulation (FAR) Part 36, Stage III: (Not Mandatory) 100%
8.	Estimated number of operations by General Aviation aircraft during the calendar quarter: (Not Mandatory) 8,681
9.	Estimated number of operations by Military aircraft during the calendar quarter: (Not Mandatory) 71
10.	Estimated number of operations by Taxi/Commuter aircraft during the calendar quarter: (Not Mandatory) 5,488

Form DOA 617, Dated 10/89

\* Calculations Based Upon 2010 Census Block Boundary Data.

## **Aircraft Noise Measurements and Modeling**

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Table 1 contains statistics of aircraft operations based upon the Federal Aviation Administration (FAA) Air Traffic Control Tower (ATCT) counts at Norman Y. Mineta San Jose International Airport (SJC).

Data contained within Tables 2-7 below was obtained from queries and reports run within EMS Bruel & Kjaer ANOMS. Table 2 contains the locations of the permanent Remote Monitoring Terminals (RMT) maintained by EMS Bruel & Kjaer in the surrounding communities of Norman Y. Mineta San Jose International Airport (SJC).

Tables 3-5 contains a summary of daily local aircraft measured noise levels (dB CNEL) for the three (3) months of the calendar quarter reporting period. Table 6 contains a summary of the monthly local aircraft measured noise levels (dB CNEL). Table 7 contains a summary of the annual local aircraft measured noise levels (dB CNEL).

The 65 dB CNEL noise contour for the period between April 1, 2018 through March 31, 2019 accompanies this report as an attachment. The noise contour was prepared using Harris Miller Miller & Hanson Inc.'s (HMMH) RealContours (RC) for Aviation Environmental Design Tool (AEDT) software tool. The noise contour figure depicts the locations of the permanent RMTs that were utilized for validation.

The Federal Aviation Administration's (FAA) AEDT software is a state of the art software system that models aircraft performance in space and time to estimate fuel consumption, emissions, noise, and air quality consequences. The modeling methodology fulfills the requirements of the State of California, Title 21, California Noise Standards.

**Table 1 – Total Aircraft Operations**

<b>Operations</b>	<b>1st Quarter 2019</b>	<b>4th Quarter 2018</b>	<b>3rd Quarter 2018</b>	<b>2nd Quarter 2018</b>
Total	48,512	49,506	51,189	50,222
Air Carrier/Cargo	34,272	35,244	35,995	34,395
General Aviation	8,681	8,778	9,609	9,969
Military	71	52	56	93
Taxi/Commuter	5,488	5,432	5,529	5,765

**Table 2 – Remote Monitoring Terminal (RMT) Locations**

<b>RMT #</b>	<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>
101	Oak Street, San Jose, CA	37.321292	-121.881981
102	Center for Performing Arts, San Jose, CA	37.329572	-121.892365
104	Bellarmino Prep School, San Jose, CA	37.340997	-121.917993
105	Rosemary Garden, San Jose, CA	37.362400	-121.914750
106	St. John/Autumn, San Jose, CA	37.334240	-121.899946
107	Fire Station 6, Santa Clara, CA	37.395160	-121.949916
108	MacGregor Lane, Santa Clara, CA	37.386895	-121.946527
109	Lake Santa Clara, Santa Clara, CA	37.392133	-121.967717
110	Chestnut Street, Santa Clara, CA	37.390153	-121.959598
111	Fuller Street Park, Santa Clara, CA	37.397987	-121.965516
112	Mountain View/Alviso, Santa Clara, CA	37.409690	-121.979440
114	Fairway Glen Park, Santa Clara, CA	37.405623	-121.961404
115	3rd/Reed, San Jose, CA	37.328608	-121.882987

**Table 3 – Daily Community Noise Equivalent Level (CNEL) Values – January 2019**

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	68.3	*	61.1	57.8	64.5	60.1	63.7	59.4	63.0	60.3	56.4	57.9	61.4
2	63.0	*	55.8	60.4	65.4	62.9	65.4	*	64.5	62.1	57.9	59.7	57.5
3	62.9	*	61.4	59.4	65.8	63.1	65.4	62.2	64.8	62.5	59.1	59.9	56.4
4	61.8	*	58.8	62.1	63.7	61.4	64.7	63.0	67.1	64.7	62.2	59.0	59.9
5	60.8	*	60.4	62.3	66.6	54.8	54.7	59.8	65.3	62.7	61.1	51.6	64.7
6	64.7	*	62.2	64.5	67.0	58.8	56.2	62.0	67.7	64.6	63.6	47.1	66.5
7	62.6	65.7	63.2	63.8	66.1	63.4	63.3	63.1	67.4	65.6	63.1	57.9	63.3
8	63.6	67.1	62.0	63.4	67.3	63.8	55.8	60.9	66.6	64.0	62.7	47.0	66.1
9	62.6	66.6	60.9	63.3	65.6	63.3	53.5	60.1	65.8	62.9	61.8	42.3	64.2
10	62.7	66.1	56.3	57.0	65.9	63.0	65.3	62.5	65.5	63.2	59.9	59.8	55.9
11	62.2	67.0	61.4	62.5	66.4	58.1	56.2	61.0	66.5	63.8	62.3	45.6	65.5
12	60.2	63.5	58.5	59.9	63.1	57.7	56.7	58.4	63.6	60.9	59.0	50.9	60.9
13	61.2	64.4	60.6	60.5	64.2	57.4	53.8	59.9	65.4	62.6	61.3	44.1	62.4
14	61.9	65.7	62.1	63.3	65.6	60.2	56.2	61.2	66.7	64.3	62.8	47.7	64.3
15	62.2	66.3	61.6	63.0	65.8	61.4	56.6	61.7	67.0	64.2	63.1	47.2	65.4
16	62.0	66.9	62.0	65.4	66.7	63.3	57.8	62.7	68.0	65.2	64.2	52.1	66.4
17	64.4	68.0	57.6	65.2	67.2	64.0	64.9	62.1	65.6	63.5	60.1	59.8	63.0
18	63.9	66.2	49.9	59.5	65.9	63.9	66.7	63.7	66.7	64.6	60.8	61.1	56.1
19	60.5	63.8	52.4	56.3	64.6	61.0	64.6	61.6	64.6	62.5	58.8	58.7	57.5
20	63.5	66.1	56.4	61.0	65.9	60.8	63.7	60.2	63.4	60.9	57.5	57.9	59.6
21	64.0	66.7	62.0	63.6	66.8	66.4	66.3	62.8	65.2	63.2	59.6	61.1	59.0
22	62.7	65.5	63.9	62.5	65.1	62.6	64.2	61.0	63.3	61.4	57.0	58.6	58.8
23	62.8	66.1	61.3	62.5	65.9	63.4	65.1	62.4	64.8	61.7	58.2	59.9	57.4
24	62.9	65.8	61.6	61.3	66.2	62.8	65.7	62.9	65.2	63.0	59.6	60.6	58.9
25	62.8	66.1	63.5	62.7	68.4	63.2	65.8	62.4	65.3	63.1	58.7	59.8	58.6
26	59.8	63.8	59.6	60.5	63.1	59.9	63.6	60.3	63.2	60.8	56.8	57.7	55.5
27	62.4	65.4	61.9	58.8	65.7	61.3	65.1	61.9	64.9	62.5	58.4	59.6	55.7
28	62.6	65.1	56.9	57.1	65.3	62.4	65.7	62.2	65.1	62.9	58.5	60.5	55.5
29	62.1	65.0	54.7	58.0	65.1	62.7	65.5	61.9	64.7	62.4	58.5	59.9	61.3
30	62.6	65.6	52.0	56.5	66.2	61.9	64.9	61.7	65.1	62.1	58.6	59.5	55.8
31	62.2	65.4	58.9	63.0	65.2	62.2	64.7	63.1	67.6	64.7	62.5	59.3	61.7
Average	63.0	65.9	60.4	61.9	65.8	62.2	63.6	61.8	65.7	63.2	60.7	58.0	62.0
# of Days	31	25	31	31	31	31	31	30	31	31	31	31	31



Table 4 – Daily Community Noise Equivalent Level (CNEL) Values – February 2019

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	62.1	66.7	62.1	62.9	65.9	61.1	57.6	62.4	68.0	65.6	64.4	52.9	65.9
2	62.0	65.0	60.4	61.9	64.7	56.0	54.7	55.0	65.9	63.3	62.2	49.5	65.0
3	60.8	64.1	56.8	62.4	63.8	60.1	62.7	*	65.7	63.1	61.2	57.3	61.3
4	65.0	68.1	58.1	63.8	67.9	63.2	65.0	*	64.6	62.5	59.1	60.0	61.6
5	63.2	65.8	55.0	62.4	65.8	63.6	65.9	63.1	65.0	62.4	58.4	60.7	57.7
6	62.3	65.6	55.0	61.1	65.0	62.8	65.4	61.9	64.6	62.2	58.5	60.1	56.7
7	62.9	66.0	56.1	60.4	65.3	66.0	66.1	62.9	66.0	63.8	60.4	60.7	57.8
8	63.5	67.6	62.2	63.4	66.7	61.1	56.7	62.4	67.0	64.4	62.9	47.9	65.8
9	61.6	64.9	58.6	61.3	63.6	57.6	55.2	57.8	63.4	60.2	58.9	49.2	62.9
10	64.0	66.3	56.6	60.1	66.3	62.1	65.1	61.5	64.0	62.0	58.4	60.1	56.9
11	63.8	67.0	56.5	61.0	67.0	63.3	66.4	63.0	65.5	63.5	59.9	61.0	59.2
12	59.0	63.7	58.5	62.5	63.4	60.3	62.7	62.3	67.0	64.6	62.8	56.5	61.7
13	63.4	67.9	63.6	65.9	67.1	62.0	59.0	62.7	68.3	65.9	64.7	51.6	66.9
14	64.5	68.1	60.7	66.6	66.9	63.0	63.6	62.9	67.6	65.3	63.3	58.0	64.8
15	65.6	69.2	59.2	64.4	68.6	64.6	66.4	62.2	66.2	63.9	60.1	61.2	65.2
16	64.4	66.9	58.9	61.4	66.5	59.3	61.9	*	61.6	59.2	56.6	57.1	61.7
17	64.3	67.3	57.6	58.8	66.7	60.7	63.4	*	63.1	60.6	57.0	58.8	60.7
18	63.6	66.3	62.3	63.4	66.5	62.4	65.6	*	64.9	62.6	59.4	60.2	56.1
19	62.9	66.2	60.1	61.2	66.0	62.7	65.7	*	65.2	62.6	58.5	61.0	57.3
20	64.3	66.8	60.7	64.1	66.7	63.8	66.3	*	65.2	63.9	59.8	61.2	56.7
21	63.4	66.0	59.8	60.2	65.8	62.4	65.6	*	65.0	62.7	59.6	60.6	57.6
22	62.7	65.6	60.8	58.5	65.5	63.2	65.7	63.0	65.0	63.2	59.3	60.1	55.8
23	61.3	64.3	55.0	57.2	63.8	60.8	64.6	61.4	64.4	62.3	58.5	59.1	55.8
24	62.8	65.7	53.0	56.3	65.7	62.3	65.8	62.6	65.4	63.3	59.7	60.7	55.9
25	62.9	66.6	61.2	63.8	66.0	59.3	55.9	61.6	67.3	65.2	63.2	48.7	64.6
26	62.8	67.2	62.0	63.3	66.3	59.7	56.9	62.4	67.8	65.0	63.8	49.4	65.9
27	63.4	67.0	60.3	62.8	67.0	62.4	62.6	61.5	65.6	63.2	61.0	57.7	65.4
28	63.3	66.3	55.1	59.6	66.4	64.2	66.7	63.7	66.5	65.1	60.9	61.6	56.2
Average	63.3	66.5	59.6	62.4	66.1	62.3	64.1	62.1	65.8	63.5	61.0	58.8	62.3
# of Days	28	28	28	28	28	28	28	20	28	28	28	28	28

Table 5 – Daily Community Noise Equivalent Level (CNEL) Values – March 2019

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	61.4	64.8	57.7	60.8	64.6	62.1	64.6	63.1	67.3	64.9	62.9	58.8	60.3
2	63.0	65.4	60.0	61.5	65.6	56.4	56.6	57.8	62.5	60.0	58.5	50.7	62.6
3	64.4	67.1	58.2	61.5	67.7	60.9	63.9	60.8	64.1	61.8	58.7	58.5	61.2
4	63.3	66.0	54.6	55.1	66.3	69.0	66.8	63.6	66.1	64.3	60.5	61.7	56.0
5	60.6	64.9	60.5	62.9	64.8	61.2	62.5	63.2	68.1	65.7	63.9	56.5	64.0
6	63.6	67.3	62.1	65.0	66.8	58.8	55.5	61.3	66.6	64.5	62.8	47.4	65.5
7	65.4	68.0	60.1	63.7	68.2	63.6	66.1	62.9	65.5	63.3	59.8	61.0	61.8
8	64.3	67.3	58.8	64.5	67.2	65.6	67.4	64.0	66.6	64.6	60.9	62.6	58.1
9	61.1	65.8	60.1	60.3	65.9	59.6	54.0	60.6	65.9	63.3	61.6	47.6	65.1
10	65.0	67.6	60.2	61.1	67.9	60.7	63.3	61.2	64.8	62.5	59.9	57.9	61.3
11	64.7	67.6	62.2	59.9	67.9	63.6	66.5	63.2	65.6	63.8	59.9	61.1	58.1
12	65.5	68.5	62.9	64.0	67.9	63.8	66.7	63.1	65.3	63.2	60.8	62.6	61.6
13	64.2	66.8	60.2	62.2	66.5	62.9	65.8	62.3	65.0	62.6	59.4	60.7	57.1
14	63.8	66.7	59.5	62.1	66.8	63.3	66.2	62.9	65.7	63.5	59.8	60.5	57.0
15	63.3	66.5	56.4	63.4	66.2	64.4	66.8	63.4	66.3	64.0	60.6	61.2	57.3
16	62.0	64.8	52.7	59.3	64.7	61.8	64.3	60.7	63.8	61.7	58.1	58.7	55.8
17	62.5	65.2	52.8	58.2	65.3	64.1	65.7	62.2	65.5	63.4	59.3	59.9	54.7
18	63.4	67.2	54.3	60.2	66.6	63.0	66.6	63.3	66.4	64.6	60.6	61.3	57.4
19	61.2	64.6	58.3	61.9	64.5	63.5	64.4	62.9	67.1	64.8	62.4	58.6	59.9
20	64.7	67.6	59.9	63.2	67.1	62.2	64.6	61.9	65.6	62.9	60.4	59.1	63.7
21	64.3	67.0	56.4	59.5	67.2	64.3	67.2	64.0	66.8	64.7	61.0	61.9	57.3
22	64.3	67.9	62.4	62.8	67.7	63.3	56.6	62.2	67.5	64.7	63.3	45.5	65.9
23	63.9	66.4	58.3	59.3	66.4	58.4	61.7	59.5	62.5	60.3	57.8	56.6	61.2
24	62.9	65.5	54.0	58.2	65.8	62.1	66.2	63.2	66.5	64.4	61.0	60.8	57.5
25	64.1	68.2	60.7	58.5	67.4	62.7	65.0	63.7	67.4	65.6	62.6	59.9	64.0
26	62.0	66.2	57.8	60.1	64.8	62.9	65.4	63.6	67.4	65.2	62.5	60.4	60.6
27	64.3	68.9	58.5	65.6	67.2	62.0	64.4	61.4	65.4	63.1	60.4	59.5	64.8
28	64.8	69.2	60.6	62.2	68.1	63.2	64.4	55.8	65.7	63.3	60.8	59.2	64.4
29	63.7	67.3	58.4	63.1	66.6	64.0	67.0	*	66.9	64.9	61.4	62.6	57.9
30	61.8	65.6	57.1	54.7	64.9	61.2	64.6	*	64.6	62.7	59.2	60.3	56.7
31	62.8	66.5	54.5	57.0	65.6	61.9	65.4	*	65.3	63.1	59.2	60.4	55.9
Average	63.6	66.9	59.2	61.7	66.6	63.1	65.0	62.4	66.0	63.8	60.9	59.8	61.4
# of Days	31	31	31	31	31	31	31	28	31	31	31	31	31

**Table 6 – Monthly Community Noise Equivalent Level (CNEL) Values**

Month, Year	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
April, 2018	64.0	66.9	57.3	60.5	67.2	64.0	66.0	62.5	66.0	63.4	59.9	61.4	58.1
# of Days	30	30	30	30	30	30	30	30	30	30	30	30	30
May, 2018	64.1	67.1	55.5	59.0	67.1	64.0	65.8	62.3	65.9	63.4	59.7	61.3	58.7
# of Days	28	31	31	31	31	31	31	31	31	31	31	31	31
June, 2018	63.7	66.6	55.8	58.5	66.1	63.4	65.6	62.5	66.2	63.8	60.0	60.7	58.3
# of Days	30	30	30	30	22	30	30	30	30	30	30	30	30
2nd Quarter 2018	63.9	66.9	56.2	59.4	66.9	63.8	65.8	62.4	66.0	63.5	59.8	61.1	58.4
# of Days	88	91	91	91	83	91	91	91	91	91	91	91	91
July, 2018	63.8	66.5	54.6	56.7	66.0	63.1	64.5	62.0	66.0	63.4	59.2	60.3	57.1
# of Days	31	31	31	31	22	30	11	31	31	31	31	31	31
August, 2018	63.7	66.5	55.6	56.6	65.7	62.8	*	62.1	65.8	63.5	59.3	60.3	57.8
# of Days	31	31	31	31	31	31	0	31	31	31	31	31	31
September, 2018	63.1	65.4	57.6	58.1	65.6	62.7	65.4	62.5	65.6	63.2	59.3	60.0	57.0
# of Days	30	10	30	30	30	30	30	23	30	30	30	30	30
3rd Quarter 2018	63.5	66.4	56.1	57.2	65.7	62.9	65.2	62.2	65.8	63.4	59.3	60.2	57.3
# of Days	92	72	92	92	83	92	41	83	91	91	91	91	91
October, 2018	63.3	*	58.9	59.8	65.6	63.3	65.6	62.5	65.6	63.1	59.1	60.2	57.0
# of Days	31	0	31	31	31	31	31	26	31	31	31	31	31
November, 2018	63.0	*	60.9	62.1	65.6	62.4	64.5	61.7	65.3	62.7	59.6	59.1	59.0
# of Days	30	0	30	30	30	30	30	30	30	30	30	30	30
December, 2018	63.4	66.3	60.1	61.6	66.1	62.3	65.1	62.4	65.7	63.3	60.0	60.1	59.1
# of Days	31	11	31	31	31	31	31	31	31	31	31	31	31
4th Quarter 2018	63.2	66.3	60.0	61.3	65.8	62.7	65.1	62.2	65.5	63.0	59.6	59.8	58.5
# of Days	92	11	92	92	92	92	92	83	91	91	91	91	91
January, 2019	63.0	65.9	60.4	61.9	65.8	62.2	63.6	61.8	65.7	63.2	60.7	58.0	62.0
# of Days	31	25	31	31	31	31	31	30	31	31	31	31	31
February, 2019	63.3	66.5	59.6	62.4	66.1	62.3	64.1	62.1	65.8	63.5	61.0	58.8	62.3
# of Days	28	28	28	28	28	28	28	20	28	28	28	28	28
March, 2019	63.6	66.9	59.2	61.7	66.6	63.1	65.0	62.4	66.0	63.8	60.9	59.8	61.4
# of Days	31	31	31	31	31	31	31	28	31	31	31	31	31
1st Quarter 2019	63.3	66.5	59.8	62.0	66.2	62.5	64.3	62.1	65.8	63.5	60.9	59.0	61.9
# of Days	90	84	90	90	90	90	90	78	90	90	90	90	90
Annual	63.5	66.5	58.4	60.3	66.2	63.0	65.1	62.2	65.8	63.4	59.9	60.1	59.4
# of Days	362	258	365	365	348	365	314	335	363	363	363	363	363
Online Percentage	99%	71%	100%	100%	95%	100%	86%	92%	99%	99%	99%	99%	99%

Table 7 – Annual Community Noise Equivalent Level (CNEL) Values

RMT #	Remote Monitoring Terminal (RMT)			
	1st Quarter 2019	4th Quarter 2018	3rd Quarter 2018	2nd Quarter 2018
101	63.3	63.5	63.5	63.3
102	66.5	66.6	65.9	65.3
104	59.8	58.2	58.2	58.0
105	62.0	60.5	61.2	61.9
106	66.2	66.2	66.2	66.1
107	62.5	63.3	63.4	63.4
108	64.3	65.3	65.3	65.3
109	62.1	62.1	61.9	61.6
110	65.8	65.8	65.7	65.6
111	63.5	63.3	63.2	62.9
112	60.9	59.8	59.8	60.0
114	59.0	60.4	60.5	60.6
115	61.9	58.7	58.7	58.6