Quarterly Noise Report

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

4th Quarter 2019
October 1, 2019 – December 31, 2019

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
A I R P O R T

S I L I C O N   V A L L E Y ' S   A I R P O R T

Airport Noise Office

January 1, 2020

Quarterly Noise Report
4th Quarter 2019
(October 1, 2019 through December 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 2nd 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 4th 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.).

Robert Lockhart
Deputy Director of Aviation
Norman Y. Mineta San Jose International Airport

Table of Contents

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

1.	Size of Noise Impact Area as defined in the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6):	
	0 Square Miles	
2.	Estimated number of dwelling units included in the Noise Impact Area as defined in the Noise Standards*:	
	0 Dwelling Units	
3.	Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards*:	
	0 People	
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:	
	Boeing 737-800 (B738); 3,633 Departure Operations	
5.	Total number of aircraft operations during the calendar quarter: (Not Mandatory)	
	50,889	
6.	Number of Air Carrier operations during the calendar quarter: (Not Mandatory)	
	37,555	
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)	
	8,062	
9.	Estimated number of operations by Military aircraft during the calendar quarter: (Not Mandatory)	
	48	
10.	Estimated number of operations by Taxi/Commuter aircraft during the calendar quarter: (Not Mandatory)	
	5,224	

Form DOA 617, Dated 10/89

* Calculations Based Upon 2010 Census Block Boundary Data.

Aircraft Noise Measurements and Modeling

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 January 1, 2019 through December 31, 2019 accompanies this report as an attachment. The noise contour was prepared using the Federal Aviation Administration's (FAA) Aviation Environmental Design Tool (AEDT) software. The noise contour figure depicts the locations of the permanent RMTs that were utilized for validation.

The 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

Operations	4th Quarter 2019	3rd Quarter 2019	2nd Quarter 2019	1st Quarter 2019
Total	50,889	54,033	52,452	48,512
Air Carrier/Cargo	37,555	39,696	37,189	34,272
General Aviation	8,062	9,151	9,638	8,681
Military	48	58	87	71
Taxi/Commuter	5,224	5,128	5,538	5,488

Table 2 – Remote Monitoring Terminal (RMT) Locations

RMT #	Location	Latitude	Longitude
101	Oak Street, San Jose, CA	37.321292	-121.881981
102	Center for Performing Arts, San Jose, CA	37.329572	-121.892365
104	Bellarmine 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 – October 2019

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	63.7	66.9	54.0	57.4	65.6	63.1	66.0	62.7	65.5	63.7	59.3	60.9	57.3
2	63.0	66.9	56.0	60.9	65.7	64.2	66.2	62.7	65.7	63.7	59.6	61.1	56.0
3	64.1	67.6	62.3	59.6	66.5	63.7	66.6	63.5	66.9	64.9	60.2	61.8	57.2
4	64.0	68.0	63.1	62.1	66.5	63.2	66.3	64.0	66.8	64.3	60.3	61.5	58.4
5	60.8	64.5	54.5	58.3	63.5	60.4	63.7	61.3	64.1	62.1	58.1	58.7	54.2
6	62.3	66.3	62.4	58.3	64.6	61.1	64.6	61.7	64.9	62.8	58.8	59.2	55.9
7	63.3	67.2	57.6	62.6	65.6	64.4	65.5	62.4	65.7	63.4	59.1	60.7	56.8
8	63.0	67.1	53.8	60.7	66.1	62.4	65.8	62.2	65.5	63.5	58.7	60.2	55.8
9	63.3	66.9	56.6	57.0	66.2	62.5	65.3	62.9	65.5	63.3	61.0	60.1	57.0
10	62.4	65.8	57.1	59.5	65.4	63.8	64.1	60.8	64.3	62.2	58.2	58.7	54.7
11	62.5	66.4	63.0	60.3	65.3	62.0	65.0	61.8	65.3	63.2	59.0	59.6	59.6
12	60.3	63.7	58.3	57.9	64.5	61.9	62.5	59.7	63.0	61.0	57.0	57.3	57.5
13	63.3	66.9	59.8	57.3	65.9	61.9	65.2	61.9	65.2	63.3	58.9	60.3	56.9
14	63.8	67.3	54.2	61.0	65.8	63.5	66.4	63.3	66.5	64.4	59.8	60.9	57.2
15	63.4	67.0	54.2	55.5	65.7	62.6	66.0	62.8	66.1	64.2	59.8	60.4	56.5
16	63.8	67.7	58.2	58.4	66.0	63.5	66.5	63.5	66.6	64.5	60.3	61.6	57.0
17	64.7	67.8	58.3	61.1	66.3	63.5	66.5	63.5	66.6	64.5	60.6	61.8	59.4
18	64.0	67.9	63.9	60.4	66.2	63.9	67.0	64.1	66.9	64.8	60.6	62.3	58.1
19	61.5	65.2	58.1	55.1	64.3	61.4	64.4	61.8	64.9	63.1	58.6	60.0	55.0
20	63.6	67.4	54.9	53.7	66.3	62.2	65.9	63.0	65.9	64.0	59.7	61.0	56.5
21	63.9	67.2	63.1	62.5	66.1	62.6	65.9	63.3	66.0	63.9	59.8	60.6	57.3
22	63.4	67.1	64.5	65.5	66.0	61.9	65.0	62.2	64.9	63.2	59.1	59.3	60.0
23	63.0	66.8	62.1	64.7	65.1	61.8	65.2	62.6	65.4	63.2	59.2	60.0	57.9
24	62.3	66.0	62.6	63.6	64.6	61.8	65.1	61.9	65.4	63.4	59.4	59.4	59.0
25	62.6	67.2	62.3	65.1	65.2	61.7	65.1	62.0	65.3	62.9	59.2	59.3	58.2
26	60.4	64.3	56.4	56.8	63.1	60.1	63.7	61.4	64.2	62.1	58.0	58.3	54.2
27	62.2	65.9	56.3	49.9	64.5	59.6	62.9	60.7	63.1	61.4	57.7	58.5	53.9
28	62.1	66.1	63.0	63.0	64.7	60.5	63.7	60.6	63.9	61.7	57.1	57.6	55.9
29	61.5	66.1	57.1	61.8	64.2	59.7	62.7	61.4	63.2	61.8	57.8	56.7	56.6
30	62.1	66.3	56.6	63.8	64.1	60.8	65.1	60.7	64.3	62.3	57.8	60.2	56.0
31	61.8	66.3	57.8	60.8	63.8	62.1	64.9	61.5	65.1	62.9	58.5	59.2	59.0
Average	62.9	66.7	60.1	61.0	65.4	62.4	65.3	62.3	65.4	63.3	59.2	60.1	57.1
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31

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

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	61.9	67.6	60.2	62.1	64.8	62.0	65.3	61.9	65.2	63.0	58.7	59.3	58.7
2	60.3	64.5	60.6	62.2	62.5	60.3	62.7	59.4	62.8	60.6	55.7	56.7	60.8
3	62.3	66.1	63.0	62.0	65.0	61.9	65.0	59.8	64.8	62.7	58.1	59.5	55.1
4	62.9	66.9	63.5	63.0	65.3	62.6	65.9	62.7	65.9	64.0	59.5	60.4	58.5
5	63.1	67.0	59.2	61.0	65.0	62.9	66.0	62.7	66.2	63.7	59.8	60.4	58.1
6	63.1	67.0	54.8	54.9	65.7	61.9	65.5	62.6	65.8	63.9	59.5	59.7	57.9
7	63.7	67.8	54.8	56.2	66.4	62.3	65.6	63.3	66.6	64.9	60.4	61.1	62.4
8	63.5	67.9	55.8	54.4	66.0	62.7	66.2	63.6	66.8	64.9	60.9	60.6	59.5
9	61.4	64.4	49.6	53.0	63.7	60.4	63.7	60.8	64.1	62.2	57.6	57.2	53.9
10	63.1	66.7	56.4	54.6	65.6	61.6	65.4	62.0	65.3	63.2	58.5	59.8	56.2
11	63.7	67.5	65.8	63.4	66.5	63.1	66.7	63.9	67.0	64.9	60.7	61.4	60.1
12	63.1	67.1	61.8	59.7	65.5	63.7	66.3	63.2	66.6	64.8	60.7	61.7	59.4
13	63.4	67.5	52.7	59.4	65.6	63.4	66.4	63.4	66.7	64.9	60.7	61.2	57.9
14	63.4	68.0	57.7	60.6	66.0	63.5	66.0	63.5	67.9	65.9	62.3	61.2	62.7
15	63.8	68.0	54.5	57.9	66.7	63.4	66.7	63.5	66.9	65.2	60.7	61.3	58.7
16	60.5	64.4	53.4	50.4	63.5	62.1	63.9	60.8	64.1	62.3	57.6	58.1	54.4
17	63.5	67.2	59.7	60.5	65.8	62.4	66.2	63.3	66.4	64.5	60.2	60.8	57.0
18	63.1	67.0	59.5	63.1	65.6	62.8	66.1	62.9	66.1	64.2	60.0	60.7	59.7
19	63.6	67.5	53.1	61.5	66.3	63.7	66.8	63.0	66.1	64.3	59.8	61.7	59.0
20	63.2	67.0	58.5	62.0	65.5	63.1	66.4	63.3	66.2	64.2	60.0	62.1	60.5
21	65.1	69.3	59.6	61.4	67.8	63.5	64.9	62.4	65.9	64.1	60.5	60.0	64.3
22	63.8	67.7	60.7	59.2	66.5	63.9	67.1	64.6	67.5	65.8	61.7	62.3	58.8
23	62.4	66.6	56.9	59.6	65.0	62.6	65.8	62.9	66.1	64.3	59.9	60.8	57.6
24	62.9	66.6	58.6	63.7	65.3	63.1	66.5	63.5	66.6	64.8	60.1	61.3	56.9
25	64.5	68.0	63.5	63.1	67.1	63.2	66.1	63.4	66.2	64.5	60.1	61.4	59.2
26	63.4	67.2	66.5	65.3	66.6	62.1	64.1	64.3	68.6	66.0	64.0	59.1	64.2
27	64.5	68.9	55.1	59.6	67.9	64.7	68.0	64.4	68.0	66.5	62.3	62.8	60.8
28	60.7	64.2	53.4	58.3	64.5	60.6	64.6	61.5	64.9	63.2	59.3	59.8	55.1
29	61.7	66.0	48.4	58.4	64.6	62.9	66.5	63.0	66.1	64.4	60.1	61.2	58.1
30	63.4	67.4	66.8	64.4	65.9	59.8	62.5	64.1	70.2	67.8	66.1	61.2	67.1
Average	63.1	67.1	60.5	61.0	65.8	62.7	65.8	63.0	66.5	64.5	60.7	60.7	60.2
# of Days	30	30	30	30	30	30	30	30	30	30	30	30	30

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

Day	| Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	63.8	67.3	65.4	64.9	66.5	56.6	59.9	64.4	70.2	68.0	66.1	56.3	67.5
2	63.4	68.6	63.2	64.4	67.3	58.7	58.3	62.6	68.6	66.2	64.7	48.0	67.3
3	63.9	68.2	55.0	60.7	66.9	64.5	67.1	64.2	68.2	65.8	61.4	62.0	58.0
4	63.6	67.8	53.6	59.3	67.1	65.2	67.6	64.8	68.0	66.6	62.3	62.7	57.3
5	63.6	68.2	57.9	64.9	67.0	63.2	66.7	63.8	67.8	65.8	62.2	60.8	61.9
6	63.3	69.3	63.2	64.3	67.3	56.9	57.9	62.6	68.7	66.5	64.8	51.9	67.6
7	61.7	66.6	60.1	63.2	64.9	56.1	54.8	59.6	65.6	63.0	61.7	49.0	64.8
8	65.0	68.6	59.0	58.0	68.3	60.8	64.2	61.6	64.6	62.6	58.5	59.5	62.2
9	63.4	67.6	55.7	63.0	66.6	66.3	65.7	61.8	65.7	63.4	58.8	59.7	57.7
10	62.9	66.5	58.2	60.6	65.2	62.9	66.2	63.9	67.7	66.1	62.5	61.1	58.9
11	62.8	67.7	62.7	63.0	66.0	55.1	55.0	61.4	67.2	64.9	63.3	55.8	65.2
12	65.2	69.8	61.0	61.1	68.5	60.7	63.4	61.1	65.4	64.0	59.9	57.5	64.5
13	64.0	68.4	58.0	56.5	67.0	62.8	66.0	63.9	67.4	65.3	61.8	60.6	60.5
14	62.1	66.3	55.9	59.9	64.7	62.5	65.6	62.6	65.2	63.2	59.4	61.1	57.3
15	63.7	67.5	60.9	60.1	66.4	63.1	66.5	63.5	66.5	64.6	60.4	61.8	57.7
16	61.5	66.5	61.4	65.1	64.8	63.1	66.3	64.2	68.1	66.3	63.1	61.5	59.0
17	60.7	66.3	64.2	63.9	64.9	60.2	63.9	62.5	67.7	65.9	63.0	58.7	61.6
18	64.2	68.6	62.4	62.9	67.6	59.4	56.2	61.4	67.4	65.4	63.3	47.1	66.6
19	65.7	69.7	61.1	61.8	68.3	62.3	64.4	61.7	65.8	63.7	61.0	59.6	64.4
20	63.3	68.0	59.5	59.3	66.6	63.8	67.7	64.6	68.4	66.7	62.3	62.6	57.6
21	62.3	67.9	61.6	62.5	65.9	58.8	57.0	61.2	66.9	64.6	63.1	50.0	65.4
22	65.2	69.0	61.6	62.6	68.2	65.2	65.1	62.8	66.7	64.7	61.5	60.2	64.1
23	64.0	68.6	59.5	59.9	66.9	63.8	67.3	64.7	67.5	66.1	61.3	62.5	59.0
24	61.5	65.8	54.0	58.3	64.4	63.0	66.1	63.2	66.8	64.6	61.1	61.3	58.0
25	61.8	65.3	61.0	60.6	64.9	50.1	53.4	59.8	65.5	63.1	61.6	49.3	64.2
26	64.0	67.8	60.9	59.2	66.8	63.5	66.2	63.5	66.2	64.4	60.2	61.5	57.5
27	64.5	68.5	66.0	63.6	67.2	63.9	66.5	63.3	66.2	64.2	59.6	61.3	61.7
28	63.0	67.4	59.9	60.5	65.9	62.2	65.8	62.7	65.8	63.9	59.4	60.6	57.4
29	61.8	65.6	59.5	59.9	64.7	60.7	64.7	63.9	68.5	66.1	63.5	59.3	62.9
30	64.0	67.8	61.1	63.9	67.1	63.1	66.9	64.1	66.9	65.4	61.2	61.8	58.0
31	62.9	66.6	63.3	62.3	65.5	62.0	65.5	63.5	65.6	64.9	59.8	60.4	57.5
Average	63.5	67.8	61.2	62.2	66.6	62.3	64.9	63.1	67.2	65.2	62.1	59.9	62.9
# of Days	31	31	31	31	31	31	31	31	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
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
April, 2019	63.3	67.1	63.5	59.7	66.3	61.8	65.1	63.5	66.1	64.0	60.4	60.2	60.5
# of Days	30	30	30	30	30	30	30	1	30	30	30	30	30
May, 2019	63.6	67.2	56.9	59.1	66.1	62.6	65.2	62.5	66.1	63.9	60.2	60.3	60.1
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31
June, 2019	63.7	67.3	55.4	61.9	66.0	62.5	65.3	62.4	65.9	65.2	59.7	60.2	58.9
# of Days	30	30	30	30	30	30	30	30	30	26	30	30	30
2nd Quarter 2019	63.6	67.2	60.1	60.4	66.2	62.3	65.2	62.8	66.0	64.4	60.1	60.2	59.9
# of Days	91	91	91	91	91	91	91	62	91	87	91	91	91
July, 2019	63.5	67.2	55.2	56.2	65.9	62.7	65.8	62.5	66.2	64.2	59.7	60.6	59.1
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31
August, 2019	63.4	67.0	55.8	56.7	65.6	62.2	65.2	62.2	65.9	63.8	59.7	59.9	58.4
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31
September, 2019	63.0	66.7	57.3	59.4	65.6	62.4	65.4	62.4	65.8	63.6	59.6	60.3	57.6
# of Days	30	30	30	30	30	29	29	30	30	20	30	30	30
3rd Quarter 2019	63.3	67.0	56.2	57.7	65.7	62.4	65.5	62.4	66.0	63.9	59.7	60.3	58.4
# of Days	92	92	92	92	92	91	91	92	92	82	92	92	92
October, 2019	62.9	66.7	60.1	61.0	65.4	62.4	65.3	62.3	65.4	63.3	59.2	60.1	57.1
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31
November, 2019	63.1	67.1	60.5	61.0	65.8	62.7	65.8	63.0	66.5	64.5	60.7	60.7	60.2
# of Days	30	30	30	30	30	30	30	30	30	30	30	30	30
December, 2019	63.5	67.8	61.2	62.2	66.6	62.3	64.9	63.1	67.2	65.2	62.1	59.9	62.9
# of Days	31	31	31	31	31	31	31	31	31	31	31	31	31
4th Quarter 2019	63.2	67.2	60.6	61.4	65.9	62.5	65.3	62.8	66.4	64.4	60.8	60.2	60.7
# of Days	92	92	92	92	92	92	92	92	92	92	92	92	92
Annual	63.3	67.1	59.5	60.7	66.0	62.4	65.2	62.5	66.1	64.1	60.4	60.0	60.4
# of Days	365	359	365	365	365	364	364	324	365	351	365	365	365
Online Percentage	100%	98%	100%	100%	100%	100%	100%	89%	100%	96%	100%	100%	100%

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

RMT #	Remote Monitoring Terminal (RMT)			
	4th Quarter 2019	3rd Quarter 2019	2nd Quarter 2019	1st Quarter 2019
101	63.2	63.3	63.6	63.3
102	67.2	67.0	67.2	66.5
104	60.6	56.2	60.1	59.8
105	61.4	57.7	60.4	62.0
106	65.9	65.7	66.2	66.2
107	62.5	62.4	62.3	62.5
108	65.3	65.5	65.2	64.3
109	62.8	62.4	62.8	62.1
110	66.4	66.0	66.0	65.8
111	64.4	63.9	64.4	63.5
112	60.8	59.7	60.1	60.9
114	60.2	60.3	60.2	59.0
115	60.7	58.4	59.9	61.9