

CERTIFICATION

Specific dates of summary: July 1, 2018 – September 30, 2018

I certify that the information contained in the following pages is correct to the best of my knowledge.

PREPARED BY: Paul H. Dunholter
President
BridgeNet International
DATE: November 26, 2018

APPROVED BY: Robert Lockhart
Deputy Director of Aviation
Norman Y. Mineta San Jose International Airport
DATE:

SUMMARY OF CALTRANS STATISTICAL INFORMATION 3rd QUARTER 2018
(Form DOA 617 10/89)

Annualized Noise Impact Data (October 1, 2017 – September 30, 2018):

- 1. Noise Impact Area (statue miles-squared) 0
Includes land parcels only: Does not include streets
- 2. Estimated number of dwellings impacted 0
- 3. Estimated number of people residing within the Noise Impact Boundary 0
(Estimated, based on 3.09 people per dwelling unit.)

Quarterly Aircraft Operations Data (July 1, 2018 – September 30, 2018):

- 4. Aircraft type having highest takeoff noise level B727-200 (Stage 3 compliant)
Total operations by this aircraft 0
- 5. Estimated number of aircraft operations 51,189
- 6. Estimated number of air carrier/cargo jet operations 35,995
- 7. Estimated percent of air carrier/cargo jet operations by Stage 3 aircraft 100%
- 8. Estimated number of general aviation aircraft operations 9,609
- 9. Estimated number of military aircraft operation 56
- 10. Estimated number of taxi/commuter aircraft operations 5,529

BACKGROUND INFORMATION

“Noise Problem” Airports in California

The California Airport Noise Standards (California Code of Regulations, Title 21, Section 5000 et seq.) apply to any airport that is determined to have a noise problem by the local County Board of Supervisors in accordance with the provisions in the regulation. Norman Y. Mineta San Jose International Airport (SJIA) is one of ten airports in California that have been determined to have a noise problem by local County governments.

How is aircraft noise measured?

California uses the Community Noise Equivalent Level (CNEL) as the primary measure for determining exposure of individuals to airport noise. CNEL is the annual, 24-hour average sound level, in decibels, obtained from the accumulation of all noise events, with the addition of 4.77 decibels to weight sound levels from 7 P.M. to 10 P.M. and 10 decibels to weight sound levels from 10 P.M. to 7 A.M. In effect, this weighting means that each evening operation is counted as it is five daytime operations and each nighttime operation counts as the same as ten daytime operations. The weighing of evening and nighttime events accounts for the fact that noise events during these hours are more intrusive when ambient levels are lower and people are trying to sleep. The 24-hour CNEL is annualized to reflect noise generated by aircraft operations for an entire year and is identified by “noise contours” showing levels of aircraft noise.

CNEL is a widely accepted descriptor for aviation noise because of the following characteristics: CNEL is a measurable quantity; CNEL can be used by airport planners and the general public who are not familiar with acoustics or acoustical theory; CNEL provides a simple method to compare the effectiveness of alternative airport scenarios; and CNEL is based on a substantial body of scientific survey data regarding the reactions people have to noise.

What are Noise Contours (noise Exposure Maps – NEMs) and how are they used?

Noise contours are computer generated lines that are modeled to reflect both current noise conditions near airports, as well as to predict what the future noise conditions will be. Technically, a noise contour represents the average annual noise levels (CNEL) summarized by lines connecting points of equal noise exposure.

Norman Y. Mineta San Jose International Airport uses the 65 CNEL contour to identify non-compatible land uses and determine eligibility for federal funds for noise mitigation. Any noise sensitive uses (such as residences, schools, churches, etc.) within the 65 CNEL and greater contour are considered to be non-compatible with aircraft noise.

A variety of information is gathered each quarter to create an accurate noise contour including: the number of flights, flight paths, type of aircraft, type of aircraft engines, time of day, weather conditions, and runway use. Actual on-site noise measurements specific to aircraft operating at SJIA are used to verify predicted individual aircraft noise levels contained in the computer model.

These data are used to generate noise contours that are overlaid onto base maps to create a Noise Exposure Map (NEM), which is used to identify where specific levels of aircraft noise occur. The Noise Exposure Maps developed for SJIA will be used in the following ways:

- Defining where areas of roughly equal noise exist in the communities surrounding the Airport
- Assessing various alternative solutions to reduce the effect of noise

What is the Integrated Noise Model?

The Integrated Noise Model (INM) is the model developed by the Federal Aviation Administration (FAA) for evaluating aircraft noise impacts in the communities surrounding airports. The INM uses inputs such as number of operations, aircraft fleet mix (aircraft types), aircraft flight tracks, and flight profiles, time of day of operations and terrain to evaluate aircraft noise. The INM has been used by the FAA since 1978, but has been updated many times since then to include improved metrics and the most current aircraft information.

What is considered a non-compatible land use?

California uses the 65 CNEL and greater contour to represent non-compatible land uses and determine eligibility for noise mitigation. Noise sensitive uses (such as residences, schools, hospitals, nursing homes, and churches) within the 65 CNEL and greater contour are considered to be non-compatible land uses. The date of original construction, the presence of an exterior habitable area, and the presence of acoustic insulation may convert certain uses to a compatible use.

What is the purpose of noise monitoring?

The purpose of noise monitoring is to provide a method to confirm the outputs in the Integrated Noise Model from different aircraft types. The monitoring measures how loud individual aircraft are at certain points. This is then compared to the prediction based on the model and helps determine if any adjustments need to be made to the model inputs to accurately portray the unique noise environment at SJIA. Said another way, these measurements are used to validate the FAA INM. Measurements are taken of the actual noise levels an aircraft makes at a particular airport under particular conditions to compare them to predicted noise levels from the FAA INM using the exact same conditions.

ANNUALIZED COMMUNITY NOISE EQUIVALENT (CNEL) VALUES

Remote Monitoring Terminal (RMT)	Year/Quarter			
	2018/3 rd	2018/2 nd	2018/1 st	2017/4 th
101	63.5	63.3	62.7	62.5
102	65.9	65.3	64.5	64.2
104	58.2	58.0	58.0	58.0
105	61.2	61.9	62.5	62.4
106	66.2	66.1	65.8	65.6
107	63.4	63.4	63.6	63.2
108	65.3	65.3	65.1	64.8
109	61.9	61.6	61.3	61.2
110	65.7	65.6	65.4	65.4
111	63.2	62.9	62.8	62.8
112	59.8	60.0	60.5	60.5
114	60.5	60.6	60.4	60.1
115	58.7	58.6	58.7	59.0

TOTAL AIRCRAFT OPERATIONS

Operations	Year/Quarter			
	2018/3 rd	2018/2 nd	2018/1 st	2017/4 th
Total	51,189	50,222	44,710	46,840
Air Carrier/Cargo	35,995	34,395	30,594	32,513
General Aviation	9,609	9,969	8,060	8,524
Military	56	93	44	59
Taxi/Commuter	5,529	5,765	6,010	5,744

REMOTE MONITORING TERMINAL (RMT) LOCATIONS

Remote Monitoring Terminal (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	Bellarmino Prep School San Jose, CA	37.340997	-121.917993
105	Rosemary Garden San Jose, CA	37.3624	-121.91475
106	St. John/Autumn San Jose, CA	37.33424	-121.899946
107	Fire Station 6 Santa Clara, CA	37.39516	-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 St. Santa Clara, CA	37.390153	-121.959598
111	Fuller Street Park Santa Clara, CA	37.397987	-121.965516
112	Mnt. View/Alviso Santa Clara, CA	37.40969	-121.97944
114	Fairway Glen Park Santa Clara, CA	37.405623	-121.961404
115	3 rd /Reed San Jose, CA	37.328608	-121.882987

MONTHLY COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) VALUES
October 1, 2017 – September 30, 2018

	<i>Remote Monitoring Terminal (RMT)</i>												
	101	102	104	105	106	107	108	109	110	111	112	114	115
Oct 2017	62.8	62.5	59.3	62.2	65.1	62.5	64.8	60.5	64.6	61.8	58.5	59.9	56.4
# Days	21	31	31	31	31	31	31	31	31	31	31	31	31
Nov 2017	63.7	63.8	59.4	63.8	66.2	63.6	64.9	61.9	65.9	63.4	60.6	60.3	60.6
# Days	30	30	30	30	30	30	30	30	30	27	30	30	30
Dec 2017	63.3	63.7	61.2	63.3	65.8	63.2	65.5	61.4	65.3	62.7	59.2	60.6	57.9
# Days	31	31	31	31	31	31	31	30	31	31	31	31	31
4th Qtr.	63.3	63.4	60.1	63.2	65.7	63.1	65.1	61.3	65.3	62.7	59.5	60.3	58.6
# Days	82	92	92	92	92	92	92	90	92	89	92	92	92
Jan 2018	63.1	65.7	58.9	61.6	66.3	63.4	65.1	61.5	65.9	63.3	60.6	60.5	59.9
# Days	31	31	31	31	31	31	31	31	31	31	31	31	31
Feb 2018	63.3	66.6	59.4	62.5	65.9	63.4	64.9	61.1	64.7	62.1	59.3	60.3	58.4
# Days	28	28	28	28	28	28	28	28	28	28	28	28	28
Mar 2018	63.5	67.2	59.0	63.0	66.6	64.2	65.1	61.9	66.2	63.7	61.3	60.4	61.6
# Days	31	31	31	31	31	31	31	31	31	31	31	31	31
1st Qtr.	63.3	66.5	59.1	62.4	66.3	63.7	65.1	61.5	65.7	63.1	60.5	60.4	60.2
# Days	90	90	90	90	90	90	90	90	90	90	90	90	90
Apr 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
# 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
# Days	28	31	31	31	31	31	31	31	31	31	31	31	31
Jun 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
# Days	30	30	30	30	22	30	30	30	30	30	30	30	30
2nd Qtr.	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
# Days	88	91	91	91	83	91	91	91	91	91	91	91	91
Jul 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
# Days	31	31	31	31	22	30	11	31	31	31	31	31	31
Aug 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
# Days	31	31	31	31	31	31	0	31	31	31	31	31	31
Sep 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
# Days	30	10	30	30	30	30	30	23	30	30	30	30	30
3rd Qtr.	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
# Days	92	72	92	92	83	92	41	83	91	91	91	91	91
12 Mo.	63.5	65.9	58.2	61.2	66.2	63.4	65.3	61.9	65.7	63.2	59.8	60.5	58.7
# Days	352	345	365	365	348	365	314	354	365	362	365	365	365
On-Line	96.4%	94.5%	100%	100%	95.3%	100%	86.0%	96.9%	100%	99.2%	100%	100%	100%

**DAILY AIRCRAFT COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) VALUES
JULY 2018**

<i>Remote Monitoring Terminal (RMT)</i>													
Day	101	102	104	105	106	107	108	109	110	111	112	114	115
1	63.7	67.1	57.2	57.9		61.9	63.5	60.6	64.4	62.0	57.9	59.1	59.8
2	62.6	65.5	50.6	56.7		63.4	65.8	62.5	66.3	64.0	60.1	61.5	55.8
3	63.2	66.6	60.8	62.4		55.9	53.5	58.2	64.5	61.9	60.7	44.1	63.8
4	65.7	66.0	58.6	59.0		57.4	59.6	57.2	62.3	59.7	57.1	53.9	63.8
5	63.3	66.2	51.5	55.4		62.1	65.0	61.2	65.1	62.5	58.7	59.4	56.3
6	63.2	65.8	51.2	56.9		62.5	65.2	61.9	65.2	62.5	58.8	60.2	54.8
7	62.0	64.9	52.1	53.9		61.2	64.8	60.4	64.7	62.1	57.0	59.3	55.0
8	63.3	66.1	53.4	49.0		61.9	65.4	61.0	65.1	62.2	56.8	59.7	54.1
9	63.3	66.5	52.9	53.5		62.6	65.4	61.0	65.2	62.4	57.2	59.4	55.6
10	65.9	66.3	53.8	54.1	69.0	63.7	66.3	62.1	66.1	63.2	58.7	61.1	54.6
11	62.9	66.7	51.5	56.2	65.7	63.1	64.6	62.7	66.8	64.4	60.5	61.3	53.6
12	64.7	67.7	59.2	60.3	67.0	69.0		61.9	65.9	63.4	59.8	60.6	61.8
13	63.3	66.3	53.4	57.6	66.2	63.6		63.1	66.8	64.4	60.7	61.4	54.7
14	61.3	64.5	54.9	52.5	64.2	62.3		60.7	64.9	62.1	58.3	59.3	55.4
15	63.1	66.0	52.6	53.9	65.8	62.0		62.3	66.0	63.8	59.4	60.2	54.8
16	63.6	66.7	53.8	56.8	66.0	63.2		62.5	66.4	63.7	59.8	60.8	55.5
17	63.8	66.5	52.0	55.5	66.1	63.6		61.7	65.8	63.0	58.6	59.8	55.2
18	63.9	66.0	51.3	55.3	65.3	62.6		62.1	66.1	63.7	58.9	60.3	54.7
19	64.6	66.0	52.5	56.6	65.1	63.7		63.3	67.6	65.2	60.9	62.0	55.6
20	67.1	66.5	51.9	57.7	65.7	62.7		63.3	67.2	65.0	61.2	61.5	55.0
21	62.5	65.1	51.0	52.4	64.9	62.5		62.5	66.3	64.0	60.4	61.1	54.6
22	63.6	70.0	52.8	55.4	65.9	62.0		62.0	65.8	63.4	59.5	60.4	55.2
23	64.1	66.7	53.5	60.1	66.1	63.2		62.6	66.4	64.1	59.9	61.1	55.3
24	64.0	66.2	53.5	57.6	65.5	63.7		62.8	66.5	63.7	59.2	61.0	54.6
25	63.6	66.4	54.3	56.2	65.5	63.1		61.6	65.9	62.7	57.9	59.8	55.7
26	63.8	66.7	54.9	56.5	66.0	63.6		63.2	66.9	64.5	59.6	61.6	56.0
27	64.0	67.0	54.6	55.0	66.4	63.5		63.1	66.9	64.4	59.7	61.1	56.0
28	61.7	64.9	53.5	52.8	64.5	61.8		61.3	65.5	62.8	58.3	59.6	53.4
29	63.8	66.6	54.0	52.9	66.1	62.8		62.4	66.3	63.6	58.8	60.8	55.6
30	63.2	66.5	55.3	55.5	65.8	63.2		62.2	66.2	63.5	58.6	60.6	54.5
31	63.5	66.5	55.3	57.5	65.9	63.7		62.1	66.3	63.3	58.2	60.8	55.5
Avg.	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
# Days	31	31	31	31	21	31	11	31	31	31	31	31	31

**DAILY AIRCRAFT COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) VALUES
AUGUST 2018**

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	64.2	66.9	54.5	57.5	66.0	63.8		62.3	66.4	63.5	58.5	61.1	56.5
2	63.4	66.6	52.5	53.1	65.5	63.8		63.0	66.9	64.3	59.7	61.8	55.4
3	63.6	66.8	56.2	54.7	66.5	63.1		62.3	66.9	64.4	60.2	61.0	58.3
4	62.4	66.5	53.2	54.0	65.1	61.5		60.2	64.4	61.5	57.2	59.2	54.5
5	63.2	65.9	55.1	52.3	65.5	64.1		62.6	66.5	63.9	59.4	61.4	54.4
6	64.1	66.5	60.7	56.2	65.9	63.8		61.5	65.3	63.0	58.2	60.3	56.0
7	64.2	66.2	53.9	57.0	65.7	63.5		61.9	65.8	63.2	58.6	60.9	55.7
8	63.4	66.4	52.6	56.9	65.9	62.1		62.0	65.6	63.1	58.7	60.0	54.5
9	64.0	66.7	55.1	55.8	66.1	64.1		61.3	65.9	63.6	58.7	60.0	55.2
10	63.7	66.9	55.1	54.8	65.2	62.8		62.5	65.8	63.0	58.9	60.5	54.9
11	61.6	65.3	48.6	55.2	63.6	61.4		61.6	65.1	61.5	57.7	59.3	54.9
12	63.6	66.3	56.5	53.4	65.4	62.0		61.0	66.0	63.5	59.1	60.4	54.9
13	64.0	66.7	55.4	54.9	66.1	63.1			66.6	64.5	60.7	61.6	55.5
14	64.2	67.2	55.0	54.8	66.8	63.3			65.8	63.0	59.1	60.3	55.3
15	64.0	67.1	53.9	59.1	66.3	63.4		88.8*	66.1	63.5	59.2	60.7	55.4
16	63.3	66.4	55.4	54.0	66.1	63.6		63.4	66.8	64.4	60.9	61.5	54.7
17	63.1	65.9	53.0	56.6	65.6	63.1		63.2	66.6	64.4	60.1	60.7	55.6
18	61.2	64.6	52.7	54.2	64.0	60.7		61.2	65.1	62.3	57.0	58.2	51.6
19	62.9	65.5	52.3	53.2	64.6	62.3		62.8	66.4	64.1	59.7	60.5	54.0
20	64.5	67.6	58.3	58.7	66.7	61.6		61.7	65.3	65.5	59.4	59.2	61.9
21	64.5	67.2	58.9	59.2	66.7	61.1		61.2	64.5	62.7	59.0	58.0	61.4
22	63.6	66.3	52.2	59.9	65.9	63.2		62.9	66.0	63.3	59.5	60.3	54.8
23	63.8	66.5	54.9	53.5	66.1	63.3		63.5	66.5	64.2	60.3	61.3	57.3
24	63.4	66.8	53.8	56.0	65.7	65.5		63.5	66.6	64.4	60.3	61.0	55.7
25	61.2	65.3	49.4	55.0	64.2	61.1		61.2	64.7	62.6	58.9	59.0	54.8
26	63.3	66.3	51.0	54.9	65.6	61.8		62.0	65.6	63.1	59.1	59.8	57.9
27	65.0	67.6	59.3	59.9	64.9	61.3		59.4	63.8	62.6	59.4	57.4	63.7
28	63.6	65.4	53.7	54.2	60.6	63.2		62.9	65.7	63.4	59.9	61.1	58.6
29	64.9	67.5	58.4	61.1	65.6	61.1		60.1	64.1	62.1	59.0	58.3	63.2
30	65.3	67.6	58.5	59.5	67.0	61.5		61.3	64.3	62.4	59.1	59.4	61.9
31	63.8	66.6	55.6	55.6	66.5	63.3		63.3	66.5	64.0	60.0	61.3	57.8
Avg.	63.7	66.5	55.6	56.6	65.7	62.8		62.1	65.8	63.5	59.3	60.3	57.8
# Days	31	31	31	31	31	31	0	28	31	31	31	31	31

*Deleted in calculations

**DAILY AIRCRAFT COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) VALUES
SEPTEMBER 2018**

Day	Remote Monitoring Terminal (RMT)												
	101	102	104	105	106	107	108	109	110	111	112	114	115
1	60.9	62.8	52.6	50.2	63.4	60.8	64.3	61.3	64.7	62.3	58.5	59.2	53.2
2	61.1	64.2	48.0	54.2	64.2	62.0	64.0	60.9	64.6	62.1	57.3	58.7	52.5
3	64.0	66.5	57.8	58.4	66.3	60.1	63.4	60.6	64.6	61.8	57.9	58.0	60.9
4	62.9	66.1	51.1	56.6	65.6	62.8	66.0	62.3	65.9	63.3	59.2	60.5	55.9
5	64.4	67.6	58.3	58.7	67.0	61.1	63.9	60.8	64.3	61.9	58.5	58.9	62.1
6	63.2	65.9	52.9	59.7	65.6	62.9	65.9	62.4	65.8	63.1	58.8	60.1	57.0
7	63.0	66.3	61.1	59.7	65.8	62.5	66.0	62.8	66.1	63.5	59.5	60.2	59.0
8	61.0	64.1	59.9	52.4	63.4	61.2	64.4	60.9	64.4	61.4	56.9	58.8	54.3
9	62.8	65.8	56.1	56.0	65.7	62.3	65.8	62.6	66.0	63.4	59.2	60.4	57.5
10	63.2	60.7	58.1	58.7	66.1	61.1	63.8	63.8	65.0	63.7	60.7	58.9	54.6
11	63.1		53.2	57.1	66.0	61.0	63.3	63.1	64.4	63.0	59.7	58.5	55.9
12	64.0		63.8	61.2	66.5	62.9	64.3	64.3	65.4	63.7	61.1	60.2	56.6
13	63.4		54.2	54.3	65.6	63.6	65.4	64.2	66.0	64.2	60.6	61.2	56.0
14	63.4		55.0	57.2	65.8	63.9	66.6	63.3	66.5	64.2	60.2	62.1	55.7
15	61.8		53.5	55.8	66.3	64.1	65.5	61.6	65.0	62.5	58.8	60.6	53.7
16	63.8		60.4	55.5	65.9	63.8	65.9	62.7	65.8	63.2	59.1	60.9	56.2
17	64.0		55.1	59.0	66.1	63.5	66.2	62.9	65.9	63.7	59.9	61.5	56.4
18	63.3		52.5	57.2	65.6	63.6	66.5	63.1	66.2	63.7	59.4	61.5	55.6
19	63.2		53.6	60.8	65.4	63.9	66.2	62.9	65.9	63.3	59.4	61.1	56.0
20	63.1		57.0	60.9	65.4	63.1	65.6	62.1	65.6	62.9	58.9	59.7	54.9
21	63.0		60.0	60.8	65.5	64.8	66.3	62.7	66.3	63.8	59.7	60.2	56.5
22	62.4		50.9	51.5	63.7	62.2	64.6	61.0	64.7	62.0	57.3	58.1	52.8
23	62.5		60.2	55.6	65.3	62.1	65.8	62.1	65.5	62.9	58.0	59.9	54.2
24	62.9		60.0	60.3	65.4	63.1	66.3	62.8	66.3	63.9	59.2	60.3	54.9
25	63.1		51.3	58.9	65.1	63.0	66.0		65.9	63.3	58.9	60.0	58.2
26	63.3		60.1	58.7	65.1	62.8	66.1		66.2	63.4	58.8	59.8	54.9
27	63.4		54.6	58.7	65.8	64.0	66.9		67.0	64.4	59.7	61.3	55.7
28	63.4		55.9	54.4	66.2	63.5	66.7		66.8	64.0	59.7	60.5	55.9
29	59.4		57.7	59.9	61.2	60.1	62.5		66.2	63.5	62.5	57.7	59.6
30	64.8		59.2	58.3	67.3	59.7	63.5		64.2	61.6	58.3	57.7	61.0
Avg.	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
# Days	30	10	30	30	22	30	30	24	30	30	30	30	30