

**CERTIFICATION**

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Specific dates of summary: October 1, 2016 – September 30, 2017

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

PREPARED BY:

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President  
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DATE: December 21, 2017

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DATE:

**SUMMARY OF CALTRANS STATISTICAL INFORMATION**  
(Form DOA 617 10/89)

3rd QUARTER 2017

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**Annualized Noise Impact Data (October 1, 2015 – September 30, 2016):**

- 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, 2017 – September 30, 2017):**

- 4. Aircraft type having highest takeoff noise level ..... B727-200 (Stage 3 compliant)  
Total operations by this aircraft ..... 14
- 5. Estimated number of aircraft operations ..... 46,888
- 6. Estimated number of air carrier/cargo jet operations ..... 31,891
- 7. Estimated percent of air carrier/cargo jet operations by Stage 3 aircraft ..... 100%
- 8. Estimated number of general aviation aircraft operations ..... 9,107
- 9. Estimated number of military aircraft operation ..... 57
- 10. Estimated number of taxi/commuter aircraft operations ..... 5,833

## **BACKGROUND INFORMATION**

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### **“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 LEVEL (CNEL) VALUES**

Remote Monitoring Terminal (RMT)	Year/Quarter			
	2017/3 <sup>rd</sup>	2017/2 <sup>nd</sup>	2017/1 <sup>st</sup>	2016/4 <sup>th</sup>
101	61.3	60.1	59.4	58.3
102	64.8	65.5	65.9	65.9
104	57.6	57.7	58.3	57.9
105	61.7	60.7	59.7	59.4
106	65.4	65.4	65.3	65.2
107	62.9	62.5	61.6	61.4
108	64.5	64.3	64.1	64.1
109	61.1	61.2	61.2	61.3
110	65.3	65.2	65.0	64.9
111	62.8	62.7	62.5	62.3
112	60.6	60.4	60.0	59.9
114	60.0	59.6	59.3	59.1
115	59.3	59.5	59.4	58.9

**TOTAL AIRCRAFT OPERATIONS**

Operations	Year/Quarter			
	2017/3 <sup>rd</sup>	2017/2 <sup>nd</sup>	2017/1 <sup>st</sup>	2016/4 <sup>th</sup>
Total	46,888	44,617	40,250	41,323
Air Carrier/Cargo	31,891	29,766	26,480	27,224
General Aviation	9,107	8,962	7,921	8,190
Military	57	55	49	87
Taxi/Commuter	5,833	5,834	5,800	5,822

**REMOTE MONITORING TERMINAL (RMT) LOCATIONS**

<b>Remote Monitoring Terminal (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 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 <sup>rd</sup> /Reed San Jose, CA	37.328608	-121.882987

**MONTHLY COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) VALUES**  
**October 1, 2016 – September 30, 2017**

	<i>Remote Monitoring Terminal (RMT)</i>												
	<b>101</b>	<b>102</b>	<b>104</b>	<b>105</b>	<b>106</b>	<b>107</b>	<b>108</b>	<b>109</b>	<b>110</b>	<b>111</b>	<b>112</b>	<b>114</b>	<b>115</b>
Oct 2016	<b>56.8</b>	<b>65.1</b>	<b>58.1</b>	<b>59.7</b>	<b>64.5</b>	<b>60.9</b>	<b>63.1</b>	<b>60.7</b>	<b>65.1</b>	<b>62.4</b>	<b>60.2</b>	<b>58.2</b>	<b>59.7</b>
# Days	31	31	31	31	31	31	31	31	31	31	31	31	31
Nov 2016	<b>59.1</b>	<b>65.7</b>	<b>58.2</b>	<b>60.6</b>	<b>65.2</b>	<b>62.0</b>	<b>64.7</b>	<b>61.6</b>	<b>65.4</b>	<b>63.1</b>	<b>60.1</b>	<b>59.9</b>	<b>58.9</b>
# Days	30	30	30	30	30	30	30	30	30	29	30	30	30
Dec 2016	<b>58.6</b>	<b>66.2</b>	<b>60.3</b>	<b>62.2</b>	<b>65.8</b>	<b>62.3</b>	<b>64.5</b>	<b>61.3</b>	<b>65.3</b>	<b>62.8</b>	<b>60.0</b>	<b>59.8</b>	<b>60.1</b>
# Days	31	31	31	31	31	31	31	31	31	31	31	31	31
4 <sup>th</sup> Qtr.	<b>58.3</b>	<b>65.7</b>	<b>59.0</b>	<b>61.0</b>	<b>65.2</b>	<b>61.8</b>	<b>64.2</b>	<b>61.2</b>	<b>65.2</b>	<b>62.8</b>	<b>60.1</b>	<b>59.4</b>	<b>59.6</b>
# Days	92	92	92	92	92	92	92	92	92	91	92	92	92
Jan 2017		<b>65.9</b>	<b>60.3</b>	<b>62.3</b>	<b>65.6</b>	<b>61.9</b>	<b>63.2</b>	<b>61.1</b>	<b>65.5</b>	<b>63.0</b>	<b>60.8</b>	<b>58.4</b>	<b>62.0</b>
# Days	0	31	31	31	31	31	31	31	31	31	31	31	31
Feb 2017	<b>62.4</b>	<b>65.5</b>	<b>59.3</b>	<b>62.5</b>	<b>65.2</b>	<b>60.9</b>	<b>62.6</b>	<b>60.7</b>	<b>65.5</b>	<b>62.9</b>	<b>60.8</b>	<b>58.1</b>	<b>61.7</b>
# Days	20	28	28	28	28	28	28	28	28	28	28	28	28
Mar 2017	<b>62.6</b>	<b>66.0</b>	<b>58.1</b>	<b>60.5</b>	<b>65.8</b>	<b>62.7</b>	<b>64.8</b>	<b>61.5</b>	<b>65.5</b>	<b>63.0</b>	<b>60.2</b>	<b>60.3</b>	<b>59.4</b>
# Days	29	29	31	31	31	31	20	31	31	31	31	31	31
1 <sup>st</sup> Qtr.	<b>62.6</b>	<b>65.8</b>	<b>59.4</b>	<b>61.8</b>	<b>65.5</b>	<b>62.0</b>	<b>63.5</b>	<b>61.1</b>	<b>65.5</b>	<b>63.0</b>	<b>60.6</b>	<b>59.1</b>	<b>61.1</b>
# Days	49	88	90	90	90	90	79	90	90	90	90	90	90
Apr 2017	<b>63.0</b>	<b>66.2</b>	<b>57.1</b>	<b>63.4</b>	<b>65.4</b>	<b>65.9</b>	<b>64.9</b>	<b>61.4</b>	<b>65.7</b>	<b>63.6</b>	<b>60.9</b>	<b>60.3</b>	<b>59.8</b>
# Days	27	30	30	28	30	30	30	30	30	30	30	30	30
May 2017	<b>62.1</b>	<b>63.3</b>	<b>55.4</b>	<b>55.4</b>	<b>65.5</b>	<b>63.5</b>	<b>64.9</b>	<b>61.3</b>	<b>65.5</b>	<b>62.8</b>	<b>60.5</b>	<b>60.4</b>	<b>58.2</b>
# Days	31	31	31	2	31	31	31	31	31	31	31	31	31
Jun 2017	<b>55.7</b>	<b>61.7</b>	<b>54.5</b>	<b>58.9</b>	<b>65.9</b>	<b>63.7</b>	<b>65.2</b>	<b>61.4</b>	<b>65.3</b>	<b>62.7</b>	<b>62.9</b>	<b>60.5</b>	<b>57.2</b>
# Days	30	30	30	4	30	30	30	30	30	30	30	30	30
2 <sup>nd</sup> Qtr.	<b>61.2</b>	<b>64.1</b>	<b>55.8</b>	<b>62.9</b>	<b>65.6</b>	<b>64.5</b>	<b>65.0</b>	<b>61.4</b>	<b>65.5</b>	<b>63.0</b>	<b>61.5</b>	<b>60.4</b>	<b>58.5</b>
# Days	88	91	91	34	91	91	91	91	91	91	91	91	91
Jul 2017	<b>62.7</b>	<b>62.8</b>	<b>54.3</b>	<b>61.4</b>	<b>65.4</b>	<b>63.1</b>	<b>65.3</b>	<b>61.1</b>	<b>65.4</b>	<b>62.7</b>	<b>59.9</b>	<b>61.1</b>	<b>57.2</b>
# Days	31	31	31	31	31	31	31	31	31	31	31	31	31
Aug 2017	<b>63.0</b>	<b>63.5</b>	<b>54.0</b>	<b>63.2</b>	<b>65.4</b>	<b>63.0</b>	<b>65.7</b>	<b>61.1</b>	<b>65.6</b>	<b>62.8</b>	<b>60.6</b>	<b>60.5</b>	<b>56.3</b>
# Days	23	31	31	31	31	31	31	31	31	31	31	31	31
Sep 2017	<b>62.5</b>	<b>62.4</b>	<b>55.5</b>	<b>59.7</b>	<b>65.1</b>	<b>62.4</b>	<b>64.3</b>	<b>60.2</b>	<b>64.5</b>	<b>61.6</b>	<b>60.0</b>	<b>59.5</b>	<b>56.9</b>
# Days	28	30	30	30	30	30	30	30	30	30	30	30	30
3 <sup>rd</sup> Qtr.	<b>62.7</b>	<b>62.9</b>	<b>54.7</b>	<b>61.7</b>	<b>65.3</b>	<b>62.8</b>	<b>65.1</b>	<b>60.8</b>	<b>65.2</b>	<b>62.4</b>	<b>60.2</b>	<b>60.4</b>	<b>56.8</b>
# Days	82	92	92	92	92	92	92	92	92	92	92	92	92
12 Mo.	<b>61.3</b>	<b>64.8</b>	<b>57.6</b>	<b>61.7</b>	<b>65.4</b>	<b>62.9</b>	<b>64.5</b>	<b>61.1</b>	<b>65.3</b>	<b>62.8</b>	<b>60.6</b>	<b>60.0</b>	<b>59.3</b>
# Days	311	363	365	308	365	365	354	365	365	363	365	365	365
On-Line	85%	99%	100%	84%	100%	100%	97%	100%	100%	99%	100%	100%	100%







