ITEM 5

Santa Monica Airport

Noise Management Program

November 2012 Report

City of
Santa Monica℠

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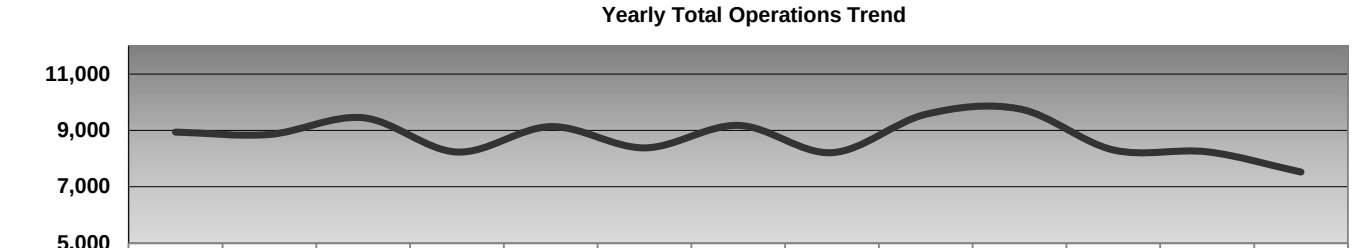
I. Introduction

This report has been prepared in an effort to inform the Airport Commission and the public regarding the Santa Monica Airport's Noise Management Program. The report provides details on aircraft operations, noise violations, aircraft and helicopter deviations, and curfew departures for the month of November 2012.

II. Aircraft Operations Data

The total number of aircraft operations *(aircraft operation is defined as one takeoff or one landing)* recorded during the month of November 2012 was 7,524; which represents a 16% decrease from the 8,940 operations recorded during November 2011. Approximately 26% of the operations were instrument flights (IFR transient), 31% were local flights (VFR local operations), and 43% itinerant flights (VFR transient). The total traffic count is recorded by the FAA control tower. See attachment A for the Airport Traffic Record.

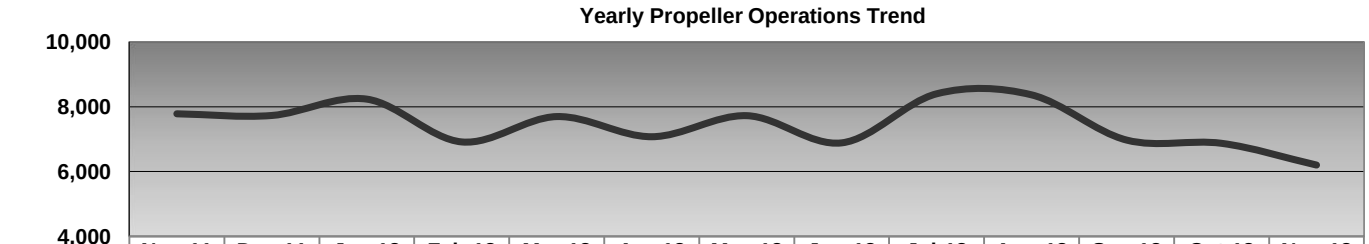


	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Operations	8,940	8,856	9,449	8,234	9,135	8,380	9,178	8,211	9,572	9,762	8,306	8,241	7,524

Following are breakdowns of the total operations grouped by aircraft type along with a graph for each type indicating each monthly aircraft operations trend during the preceding 12-month period.

Propeller Aircraft Operations

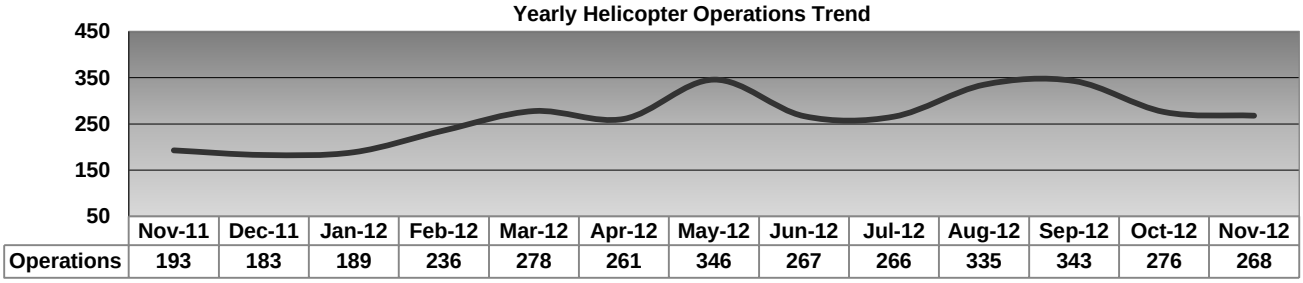
There were approximately 6,200 propeller aircraft operations, comprising approximately 82% of the total operations. Propeller aircraft operations for November 2012 decreased 20% from the 7,782 propeller aircraft operations recorded during November 2011.



	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Operations	7,782	7,730	8,235	6,914	7,696	7,074	7,724	6,885	8,399	8,366	6,971	6,871	6,200

Helicopter Operations

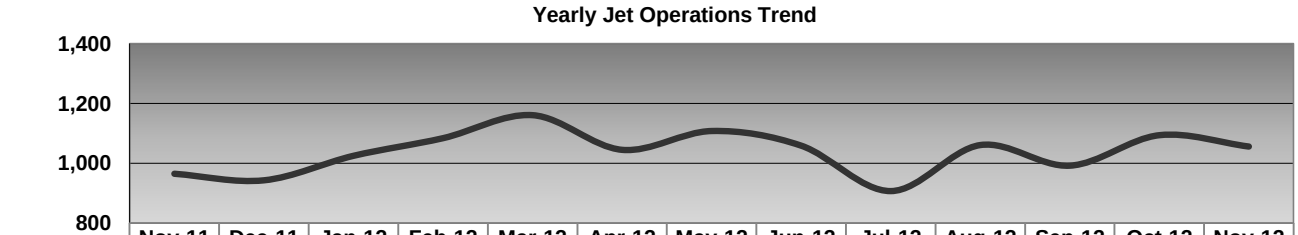
Of the monthly aircraft operations for November 2012, there were approximately 268 helicopter operations, comprising approximately 4% of the total operations. Helicopter operations for November 2012 increased 39% from the 193 helicopter operations recorded in November 2011.



	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Operations	193	183	189	236	278	261	346	267	266	335	343	276	268

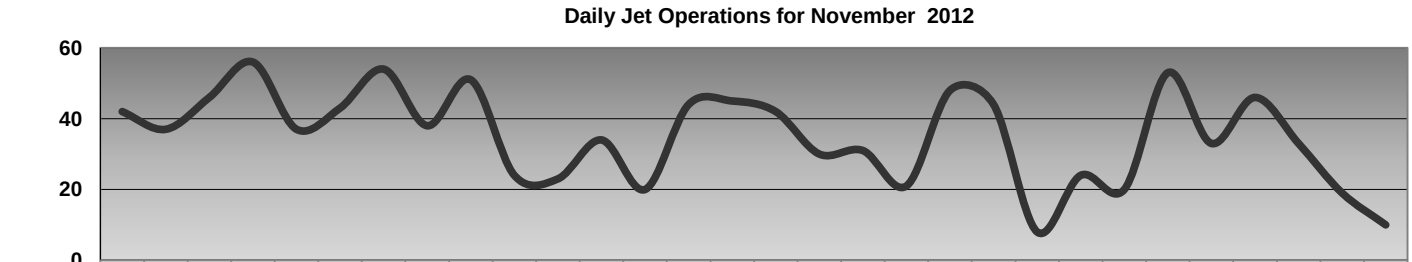
Jet Aircraft Operations

Of the monthly aircraft operations for November 2012, there were approximately 1,056 jet aircraft operations, comprising approximately 14**%** of the total operations. Jet aircraft operations for November 2012 increased 9% from the 965 jet aircraft operations recorded during November 2011.



	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Operations	965	943	1,025	1,084	1,161	1,045	1,108	1,059	907	1,061	992	1,094	1,056

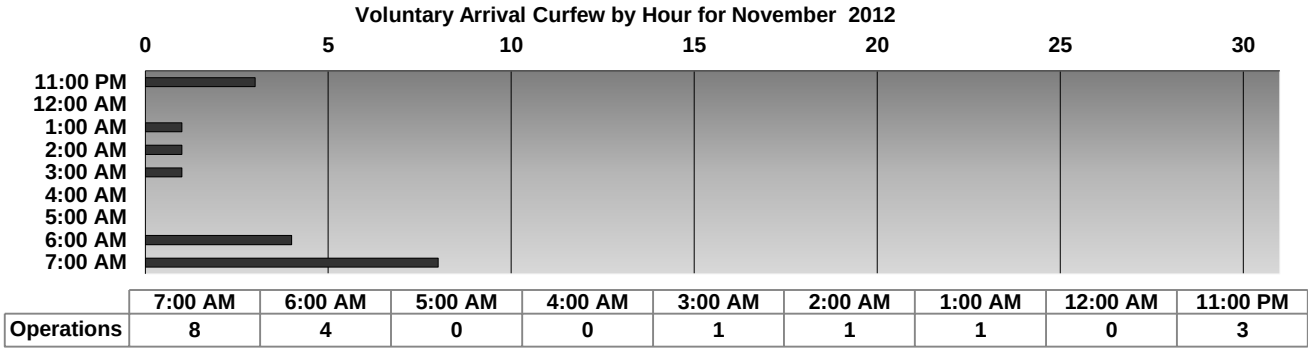
Jet operations vary significantly from day to day and often change with local civic & entertainment events and varying weather conditions. There are however, certain patterns which develop over time providing staff a better understanding of what to anticipate on a daily & weekly basis. Closely examining the daily operations of aircraft allows staff to make adjustments to their daily activities in working with the flying public and neighboring communities. Daily jet operations for the month of November 2012 averaged 35 per day. The line graph below represents the daily operations for jet driven aircraft for the month of November 2012.



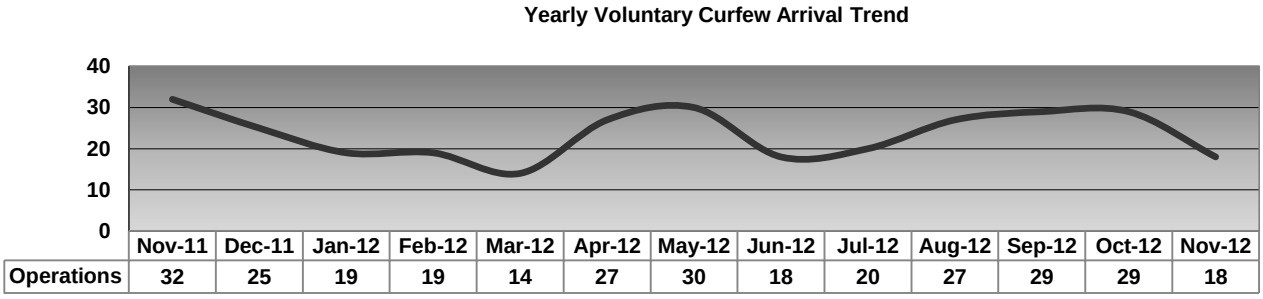
	11/1	11/2	11/3	11/4	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12	11/13	11/14	11/15	11/16	11/17	11/18	11/19	11/20	11/21	11/22	11/23	11/24	11/25	11/26	11/27	11/28	11/29	11/30
Operations	42	37	46	56	37	43	54	38	51	24	23	34	20	44	45	42	30	31	21	48	44	8	24	20	53	33	46	33	19	10

III. Voluntary Arrival Curfew

During the month of November 2012, Airport Staff logged a total of 18 aircraft arrivals during the Voluntary Arrival Curfew (VAC) (11:00 p.m. to 7:00 a.m. weekdays, 11:00 p.m. to 8:00 a.m. weekends/holidays). The graph below depicts the number of arrivals for each VAC hour during the month of November 2012. For a listing of aircraft arrivals during the night hours, see attachment B.



	7:00 AM	6:00 AM	5:00 AM	4:00 AM	3:00 AM	2:00 AM	1:00 AM	12:00 AM	11:00 PM
Operations	8	4	0	0	1	1	1	0	3



	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Operations	32	25	19	19	14	27	30	18	20	27	29	29	18

IV. Deviations from Requested Noise Management Flight Paths

Santa Monica Airport requests that arriving and departing aircraft follow certain flight paths for Noise Management. Aircraft that are observed to be operating outside of the requested flight paths are contacted and counseled of the proper Noise Management procedures. During the month of November 2012 airport staff spent several hours observing aircraft adherence to the requested noise management procedures. Staff contacted those aircraft operators observed to be deviating from established flight tracks, requesting compliance with the Airport's Recommended Noise Management Procedures.

V. Noise Management Briefings

Most aircraft are capable of meeting the 95.0 dBA maximum SENEL limit with changes in pilot technique or aircraft operating weight. The goal of the Santa Monica Airport's Noise Management Program is to communicate methods or techniques, which will lower aircraft noise levels, which in turn will minimize the impact of aircraft operations to the surrounding community.

VI. Authorized Departures & Curfew Violations

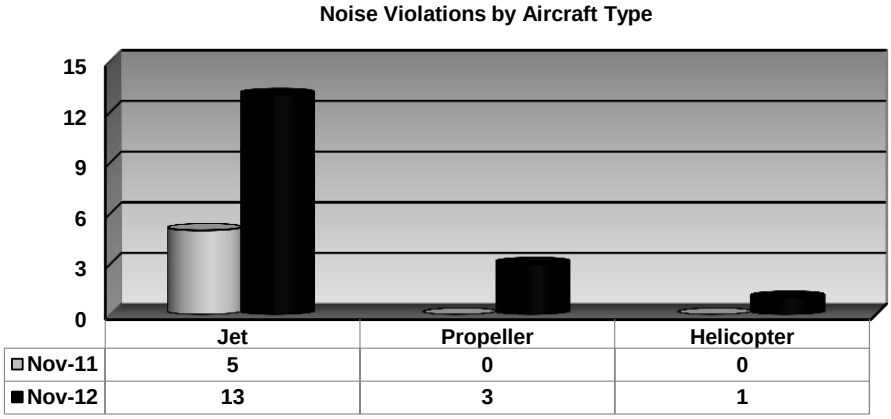
The night departure curfew prohibits takeoffs or engine startups between 11pm and 7am Monday through Friday, or until 8am on weekends and holidays. Exceptions are allowed for bona fide medical or public safety emergencies. During the month of November 2012 there were 2 authorized curfew departures, and there were no curfew violations. Curfew departures are listed on attachment C.

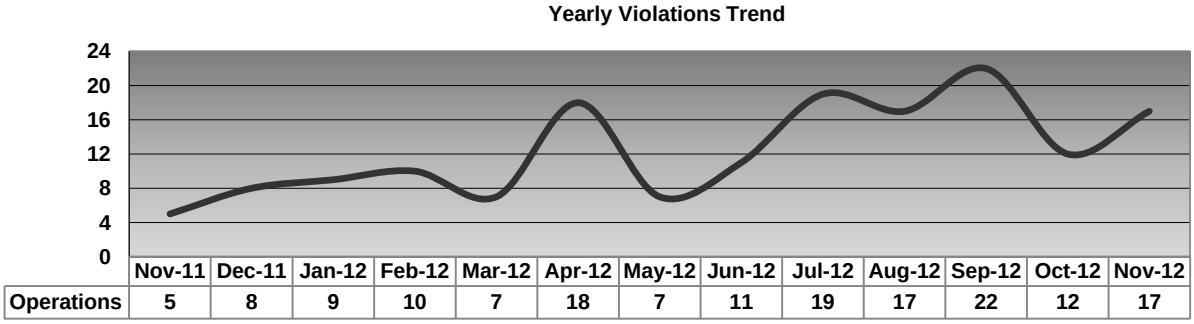
VII. Noise Violations

As result of an agreement between the City of Santa Monica and the Federal Aviation Administration (FAA), an Aircraft Noise Ordinance was established setting a maximum noise level of 95.0 dBA Single Event Noise Exposure Level (SENEL) measured at two Remote Monitoring Stations (RMS) 1,500 feet from each end of the runway. *(See Attachment E for the location of RMS01 & RMS02 and Attachment F for the definition of SENEL.)*

A violation occurs when an aircraft exceeds 95.0 dBA Single Event Noise Exposure Level. During the month of November 2012, there were 17 noise violations, an increase of 240% from the 5 noise violations recorded during November 2011. A summary of noise violations for November 2012 is listed on attachment D.

Of the 7,524 aircraft operations recorded during the month of November 2012, 99.8% were in compliance with Santa Monica Airport's noise ordinance. The noise violations listed in the graph below were registered at RMS sites 1 and 2 and do not include exempt medical emergency operations.

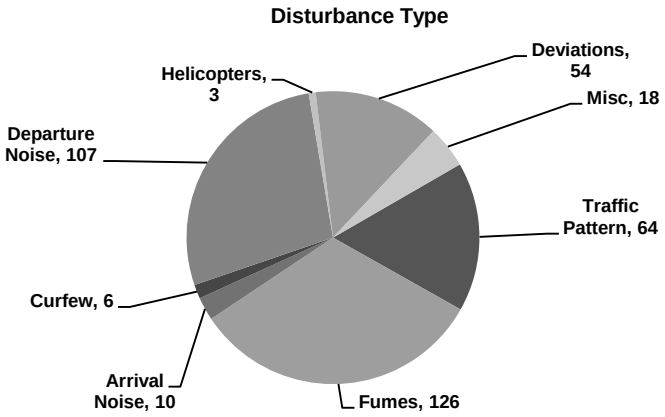


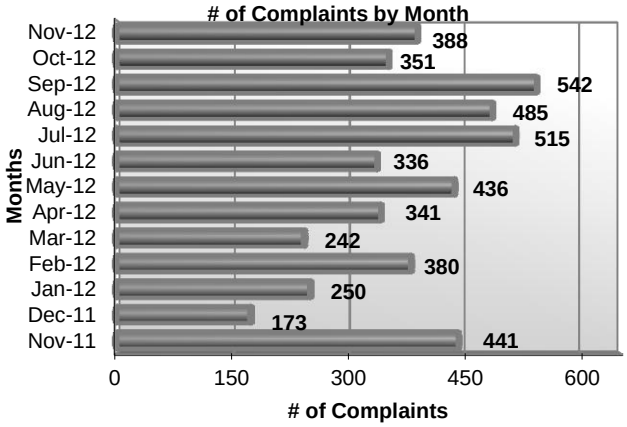


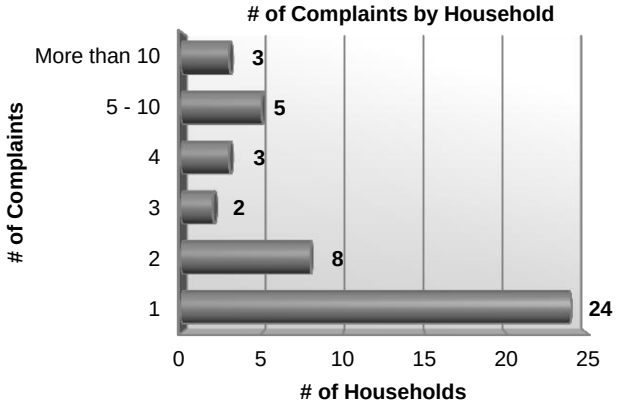
Aircraft & SENEL	95.1 to 95.9	96.0 to 96.9	97.0 to 97.9	98.0 to 98.9	99.0 to 99.9	100.0 to 104.9	105.0+	Total	%
Jet	3	4	1	3	2	1	0	**14**	**82%**
Propeller	0	0	1	0	1	0	0	**2**	**12%**
Helicopter	1	0	0	0	0	0	0	**1**	**6%**
Total:	**4**	**4**	**2**	**3**	**3**	**1**	**0**	**17**	
%	**24%**	**24%**	**12%**	**18%**	**18%**	**6%**	**0%**		**100%**

VIII. AIRCRAFT NOISE COMPLAINTS

During November 2012, Airport Noise Management staff received a total of 388 inquiries from 46 different residences. These inquiries were investigated and proper actions were taken in accordance with the Airport's "Fly Neighborly Program" and the City of Santa Monica's "Noise Code". The following charts provide a breakdown of the complaints received during November 2012.







ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	11/2012	SMO
Mail ORIGINAL of this form to Washington Office, APO-110, thru Regional Air Traffic Division.	Santa Monica ATCT	Santa Monica , California	(1-2) (3-4) MO. YR.	(5-9) LOC ID

(10-1) (11) FACILITY TYPE ("X" ONE)

APPROACH CONTROL TOWERS
- [ ] B. RADAR
- [ ] C. LIMITED RADAR
- [ ] D. NON-RADAR

(also submit FAA Form 7230-26)

- [X] E. VFR TOWER
- [ ] G. CONTRACT TOWER

(Continue on reverse)

FACILITY TYPE CHANGED (12) [ ] YES

IF DAILY HOURS OF OPERATION HAVE CHANGED, ENTER NEW HOURS → HRS. 10THS (77-78) (79)

AIRPORT OPERATIONS COUNT

	ITINERANT					LOCAL			TOTAL	SPECIAL
DAY (15-16)	AC (17-21)	AT (22-26)	GA (27-31)	MIL (32-36)	TOTAL ITINERANT	CIVIL (37-41)	MILITARY (42-46)	TOTAL LOCAL	OPERATIONS	USE (47-51)
1	0	27	151	0	178	45	0	45	223	223
2	0	21	192	0	213	105	0	105	318	541
3	0	24	220	0	244	70	0	70	314	855
4	0	26	288	0	314	66	0	66	380	1235
5	0	21	212	0	233	44	0	44	277	1512
6	0	22	156	1	179	100	0	100	279	1791
7	0	22	148	0	170	49	0	49	219	2010
8	0	17	122	0	139	26	0	26	165	2175
9	0	27	157	0	184	100	0	100	284	2459
10	0	7	148	0	155	98	0	98	253	2712
11	0	6	227	0	233	56	0	56	289	3001
12	0	20	208	0	228	68	0	68	296	3297
13	0	11	218	0	229	152	0	152	381	3678
14	0	26	158	0	184	146	0	146	330	4008
15	0	22	137	0	159	145	0	145	304	4312
16	0	23	144	0	167	112	0	112	279	4591
17	0	11	59	0	70	38	0	38	108	4699
18	0	13	201	0	214	88	0	88	302	5001
19	0	6	162	0	168	101	0	101	269	5270
20	0	22	201	0	223	38	0	38	261	5531
21	0	16	226	0	242	85	0	85	327	5858
22	0	6	70	0	76	21	0	21	97	5955
23	0	7	97	0	104	25	0	25	129	6084
24	0	11	143	0	154	76	0	76	230	6314
25	0	24	167	0	191	26	0	26	217	6531
26	0	23	120	2	145	106	0	106	251	6782
27	0	19	137	0	156	104	0	104	260	7042
28	0	11	120	0	131	243	0	243	374	7416
29	0	14	52	0	66	0	0	0	66	7482
30	0	4	38	0	42	0	0	0	42	7524
31	0	0	0	0	0	0	0	0	0	7524
TOTAL	0				5191	2333	0	2333	7524	

ATTACHMENT A

THIS SIDE FOR USE BY VFR TOWERS ONLY (ALL Approach Control Terminals MUST use FAA Form 7230-26)	ALL VFR Towers recording Instrument Operations on this side MUST COMPLETE	11/2012 (1-2) (3-4) MO. YR.	SMO (5-9) LOC ID	ADP CONTROL 10-4

INSTRUMENT OPERATIONS							REMARKS
DAY	AC	AT	GA	MILITARY		TOTAL (10-E) (14-1)	
1	0	27	68	0	(16-19)	95	
2	0	20	61	0	(20-23)	81	
3	0	24	40	0	(24-27)	64	
4	0	26	60	0	(28-31)	86	
5	0	18	37	0	(32-35)	55	
6	0	22	44	1	(36-39)	67	
7	0	22	82	0	(40-43)	104	
8	0	17	92	0	(44-47)	109	
9	0	26	55	0	(48-51)	81	
10	0	7	26	0	(52-55)	33	
11	0	6	43	0	(56-59)	49	
12	0	20	45	0	(60-63)	65	
13	0	11	34	0	(64-67)	45	
14	0	26	30	0	(68-71)	56	
15	0	22	48	0	(72-75)	70	
16	0	22	58	0	(76-79)	80	
						(14-2)	
17	0	11	51	0	(16-19)	62	
18	0	12	51	0	(20-23)	63	
19	0	6	35	0	(24-27)	41	
20	0	21	46	0	(28-31)	67	
21	0	16	46	0	(32-35)	62	
22	0	6	16	0	(36-39)	22	
23	0	7	29	0	(40-43)	36	
24	0	11	19	0	(44-47)	30	
25	0	24	92	0	(48-51)	116	
26	0	21	49	2	(52-55)	72	
27	0	19	35	0	(56-59)	54	
28	0	11	44	0	(60-63)	55	
29	0	14	52	0	(64-67)	66	
30	0	4	38	0	(68-71)	42	
31	0	0	0	0	(72-75)	0	
TOTAL	0	499	1426	3		1928	
	(17-21)	(22-26)	(27-31)	(32-36)			
FACILITY USE							

ATTACHMENT B
Registered Noise Levels for Night Arrival Curfew
11 pm and 7 am Weekdays
11 pm and 8 am Weekends/Holidays

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ENGINE
11/2/12	23:56	N551LA	R44	21	DNR	2	LAW ENFORCEMENT	H
11/3/12	7:14	N210FF	E50P	21	82.7	2	JETSUITE	J
11/3/12	7:40	N709FL	C750	21	86.5	2	FLIGHT OPTIONS LLC	J
11/3/12	7:56	N725JB	C510	21	83.2	2	SWEATMORE IV LLC	J
11/4/12	7:39	N509AX	A500	21	82.4	2	PREVENTIVE PSYCHIATRY ASSOCIAT	TP
11/4/12	7:45	N616NC	R44	21	DNR	2	RAVEN HELICOPTERS LLC	H
11/4/12	7:55	N208PZ	S312	21	86.5	2	SGL AERO LLC	SE
11/5/12	6:37	N1111X	LTST	21	DNR	2	SANTA MONICA FLYERS INC	SE
11/5/12	23:24	N575JS	E50P	21	80.5	2	JETSUITE	J
11/7/12	2:21	N46MF	LJ35A	21	85.8	2	MED FLIGHT AIR AMBULANCE INC	J
11/10/12	1:41	N510GP	C550	21	81.7	2	SUN QUEST EXECUTIVE AIR CHARTER	J
11/10/12	7:48	N722MM	GLF4	21	86.8	2	MGM RESORTS AVIATION	J
11/11/12	7:37	N208PZ	S312	21	86.8	2	SGL AERO LLC	SE
11/12/12	6:50	N12KM	C182	21	DNR	2	FITZMAURICE PRODUCTIONS INC	SE
11/13/12	23:31	N253FD	PA28	21	DNR	2	OLSON AVIATION LLC	SE
11/16/12	6:54	N251QS	F2TH	21	89.7	2	NET JETS AVIATION INC	J
11/25/12	3:55	N23816	C182	21	DNR	2	HUNDAL MEDICAL CORP	SE
11/28/12	6:44	N885LS	HAWKER 800XP	21	88.8	2	LAS VEGAS SANDS CORP	J

ATTACHMENT C
(Authorized Departures & Curfew Violations)

Authorized Curfew Departures

DATE	TIME	RWY	NUMBER	TYPE	OPERATION
11/7/12	3:17	21	N46FM	LJ35	LIFEGUARD
11/7/12	23:02	21	N762CA	C421	LIFEGUARD

Curfew Violations

No Curfew Violations

ATTACHMENT D
(Aircraft Noise Violations)

AIRCRAFT ENGINE CATEGORY LEGEND

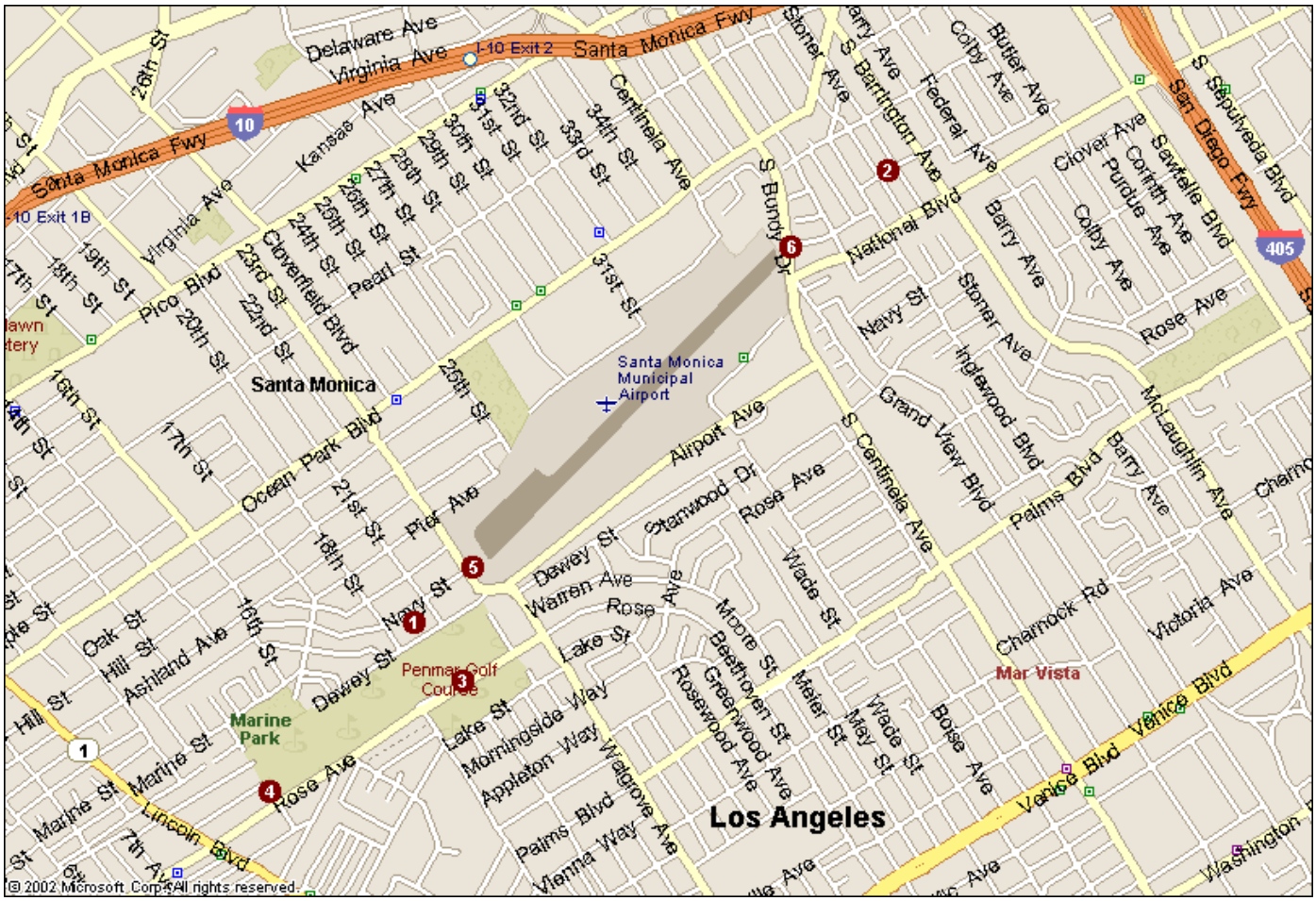
(J) = Jet, (ME) = Multi-Engine, (SE) = Single-Engine, (TP) = Turbo-Prop, (H) = Helicopter

DATE	TIME	NUMBER	TYPE	RWY	SEL	RMS	COMPANY NAME	ACTION	ENGINE
11/1/12	10:38	321AN	LJ35	21	98.3	1	ANDERSON & ANDERSON ET AL	$2,000	J
11/2/12	9:59	552XJ	CL30	21	96.5	1	XOJET INC	$2,000	J
11/2/12	14:11	509AX	A500	21	97.6	1	PREVENTIVE PSYCHIATRY ASSOCIA	WARNING	ME
11/4/12	10:19	42SC	PRM1	21	97.6	1	NORLEASE INC	WARNING	J
11/4/12	8:21	509AX	A500	21	99.5	1	PREVENTIVE PSYCHIATRY ASSOCIA	WARNING	ME
11/7/12	7:19	659BX	LJ31	21	98.5	1	OTTER AIR LLC	WARNING	J
11/9/12	13:27	76AF	S76C	21	95.8	2	VULCAN AIRCRAFT INC	WARNING	H
11/15/12	14:14	1119EM	F2TH	21	96.2	1	ARLINGTON AIRCRAFT OF NEVADA L	WARNING	J
11/15/12	16:11	310EJ	GLF4	21	99.3	1	WORLDWIDE JET	WARNING	J
11/16/12	14:06	545XJ	CL30	21	95.9	1	XOJET INC	$2,000	J
11/18/12	11:55	327GA	G100	21	99.4	1	LMI LLC	WARNING	J
11/18/12	11:36	771HM	FA50	21	100.0	1	MIDLANTIC JET CHARTERS INC	WARNING	J
11/20/12	16:41	5369E	BE35	21	98.1	1	MICHAEL K HILL	WARNING	SE
11/24/12	19:18	274HM	WW24	3	95.5	2	CBA FLIGHT SERVICES INC	WARNING	J
11/25/12	21:19	274HM	WW24	21	96.0	1	CBA FLIGHT SERVICES INC	WARNING	J
11/28/12	20:29	N102CL	PRM1	21	95.5	1	CREATIVE LOGIC LLC	WARNING	J
11/29/12	10:44	N356MR	C25B	21	96.7	1	KRG AIR LLC/KRG CAPITAL PARTNER	WARNING	J

ATTACHMENT E

Location of Remote Noise Monitoring Stations (RMS)

RMS – 1 18th Street, Between Dewey Street & Navy Street, Santa Monica
RMS – 2 Sardis Street and Granville Street, West Los Angeles
RMS – 3 Penmar Golf Course, 1233 Rose Avenue, Venice
RMS – 4 West end of Penmar Golf Course on Warren Avenue, Venice
RMS – 5 23rd Street & Navy Street, Santa Monica
RMS – 6 Bundy Ave & Clarkson Road/Ct, West Los Angeles



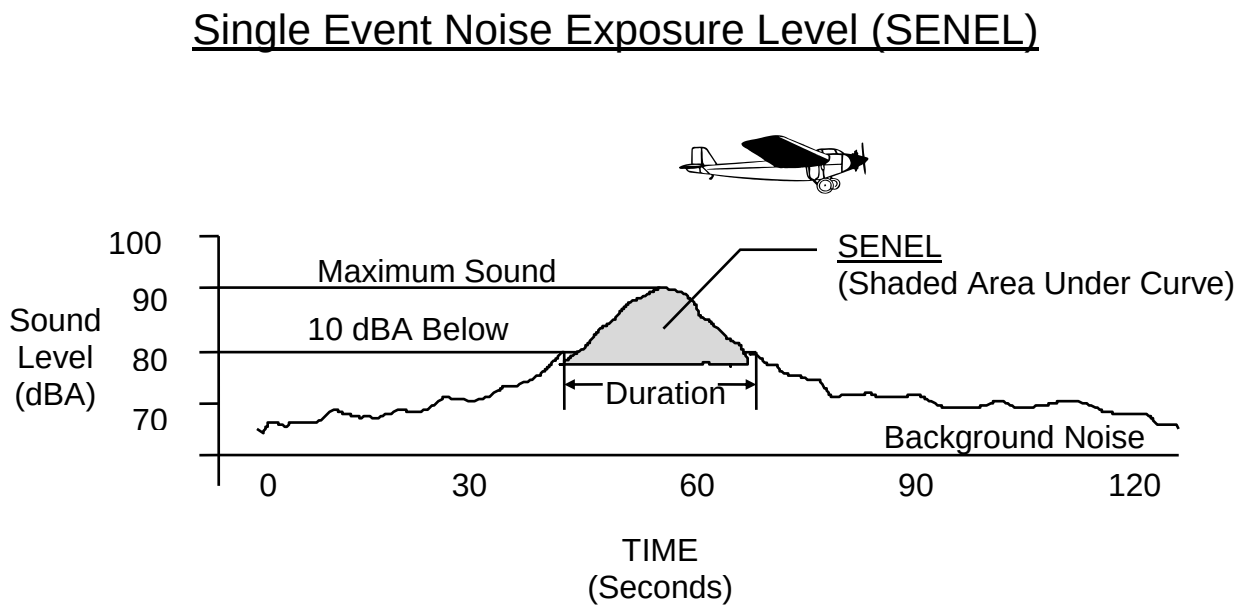
Note: ONLY Remote Monitoring Stations 1 & 2 are used for the Enforcement of the 95.0 dBA Single Event Noise Exposure Level (SENEL) maximum allowable noise level.

ATTACHMENT F
(Single Event Noise Exposure Level)

Definition of Single Event Noise Exposure Level (SENEL)

As a result of an agreement between the City of Santa Monica and the FAA, an Airport Ordinance was established setting a maximum noise level of 95.0 dBA Single Event Noise Exposure Level (SENEL) measured at noise monitor sites 1,500 feet from each end of the runway.

As an aircraft approaches each noise monitor, the sound of the aircraft begins to rise above the threshold level. The closer the aircraft gets, the louder it is until the aircraft is at its closest point directly overhead. As the aircraft passes, the noise level decreases until the sound settles below the threshold level. Such a history of a flyover is plotted in the graph below. The highest noise level reached during the flyover is called the “Maximum Noise Level”, or LMax. Referring to the same graph, the area within 10 dB of the LMax is the area from which the SENEL is computed. This metric takes into account the maximum noise level and the duration of the event. The SENEL value is always higher than the LMax value for aircraft events.



A-WEIGHTED SOUND LEVEL (dBA) – The sound pressure level in decibels as measured on a sound level meter using the A-Weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. It is a numerical method of rating human judgment of loudness.