ITEM 5

Santa Monica Airport

Noise Management Program

May 2012 Report

City of
Santa Monica℠

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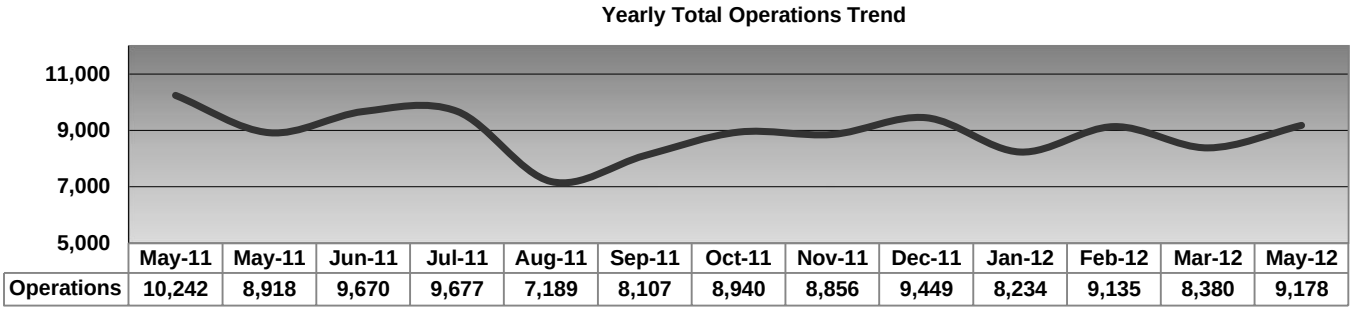
I. Introduction

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 May 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 May 2012 was 9,178; which represents a 10% decrease from the 10,242 operations recorded during May 2011. Approximately 23% of the operations were instrument flights (IFR transient), 34% were local flights (VFR local operations), and 42% itinerant flights (VFR transient). The total traffic count is recorded by the FAA control tower. See attachment A for the Airport Traffic Record.

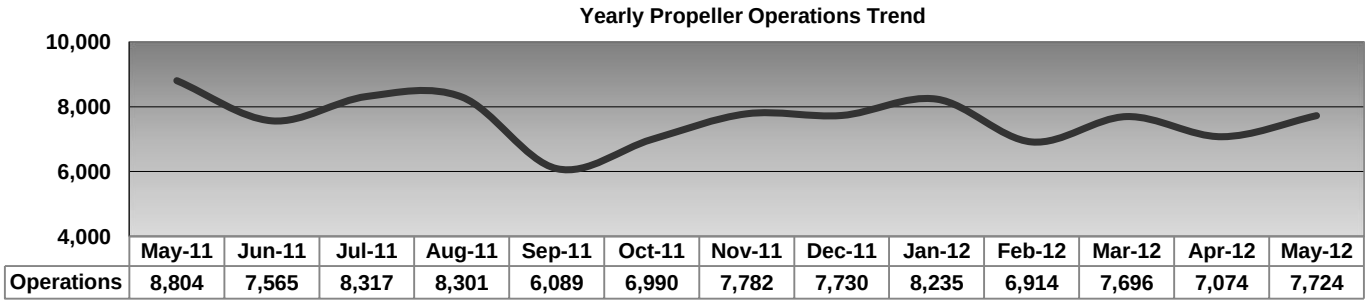


	May-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	May-12
Operations	10,242	8,918	9,670	9,677	7,189	8,107	8,940	8,856	9,449	8,234	9,135	8,380	9,178

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

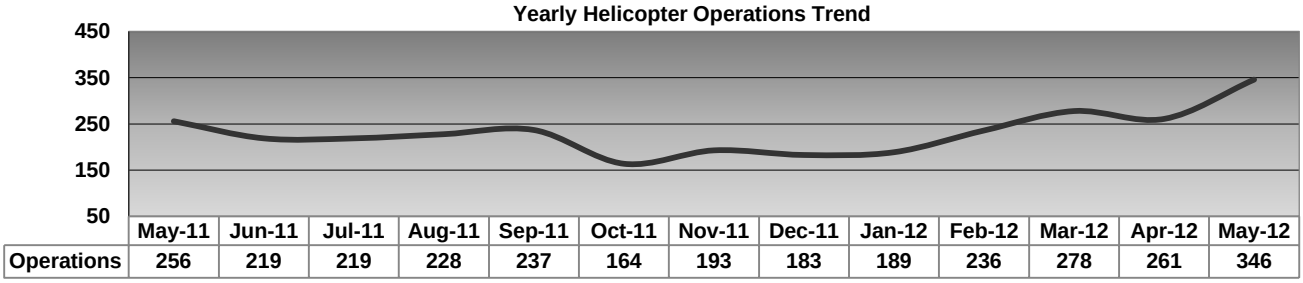
There were approximately 7,724 propeller aircraft operations, comprising approximately 84% of the total operations. Propeller aircraft operations for May 2012 decreased 12% from the 8,804 propeller aircraft operations recorded during May 2011.



	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Operations	8,804	7,565	8,317	8,301	6,089	6,990	7,782	7,730	8,235	6,914	7,696	7,074	7,724

Helicopter Operations

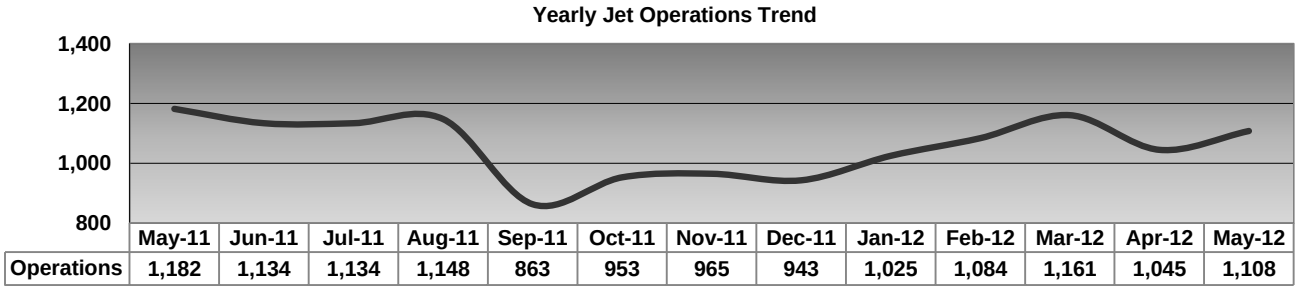
Of the monthly aircraft operations for May 2012, there were approximately 346 helicopter operations, comprising approximately 4% of the total operations. Helicopter operations for May 2012 increased 35% from the 256 recorded in May 2011.



	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Operations	256	219	219	228	237	164	193	183	189	236	278	261	346

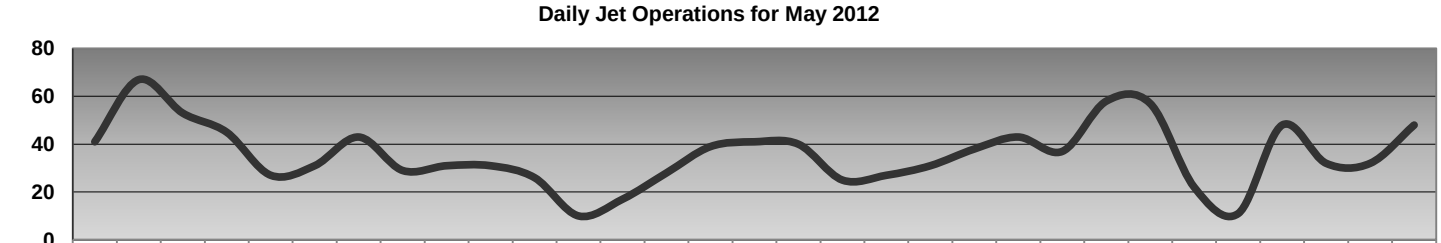
Jet Aircraft Operations

Of the monthly aircraft operations for May 2012, there were approximately 1,108 jet aircraft operations, comprising approximately 12**%** of the total operations. Jet aircraft operations for May 2012 decreased 6% from the 1,182 jet aircraft operations recorded during May 2011.



	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Operations	1,182	1,134	1,134	1,148	863	953	965	943	1,025	1,084	1,161	1,045	1,108

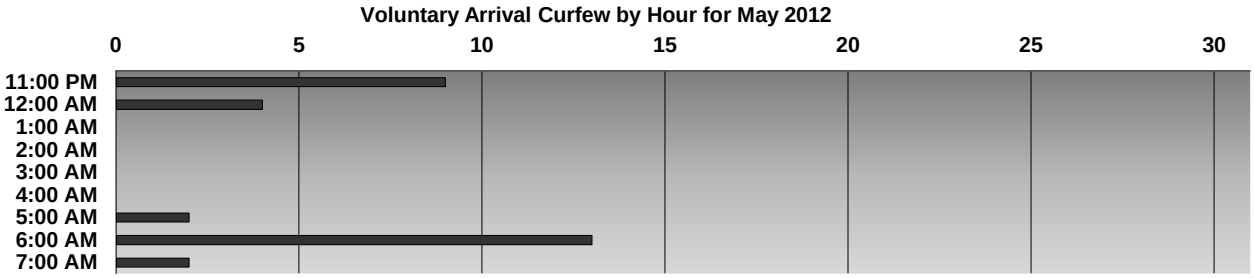
Jet operations vary significantly from day to day and often change with local civic & entertainment events and varying weather conditions. There are however, certain patterns which develop over time providing staff a better understanding of what to anticipate on a daily & weekly basis. Closely examining 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 May 2012 averaged 37 per day. The line graph below represents the daily operations for jet driven aircraft for the month of May 2012.



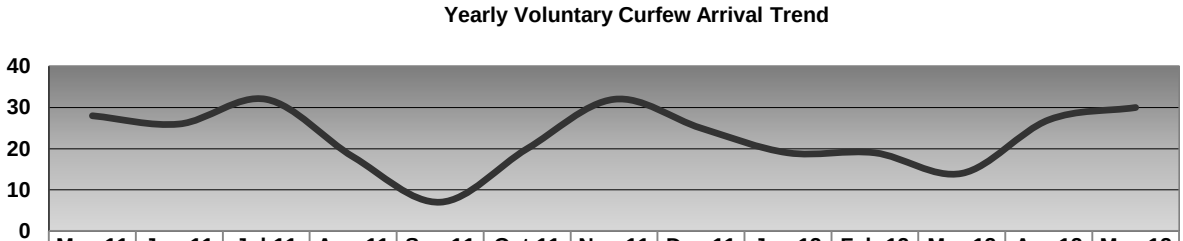
	5/1	5/2	5/3	5/4	5/5	5/6	5/7	5/8	5/9	5/10	5/11	5/12	5/13	5/14	5/15	5/16	5/17	5/18	5/19	5/20	5/21	5/22	5/23	5/24	5/25	5/26	5/27	5/28	5/29	5/30	5/31
Series1	41	67	53	45	27	31	43	29	31	31	26	10	17	28	39	41	40	25	27	31	38	43	37	58	57	22	11	48	32	32	48

III. Voluntary Arrival Curfew

During the month of May 2012, Airport Staff logged a total of 30 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 May 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	2	13	2	0	0	0	0	4	9



	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Operations	28	26	32	18	7	20	32	25	19	19	14	27	30

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 May 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. Curfew Violations

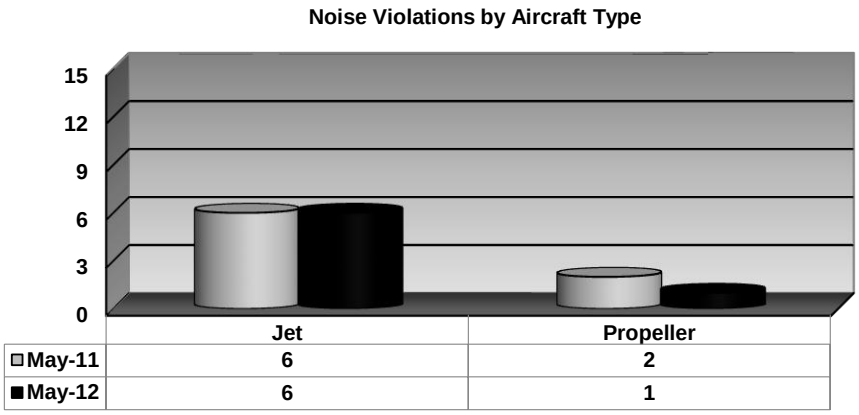
The night departure curfew prohibits takeoffs or engine startups between 11pm and 7am Monday through Friday, or until 8am on weekends and holidays. Exceptions are allowed for bona fide medical or public safety emergencies. During the month of May 2012 there was one authorized curfew departure and one curfew violation.

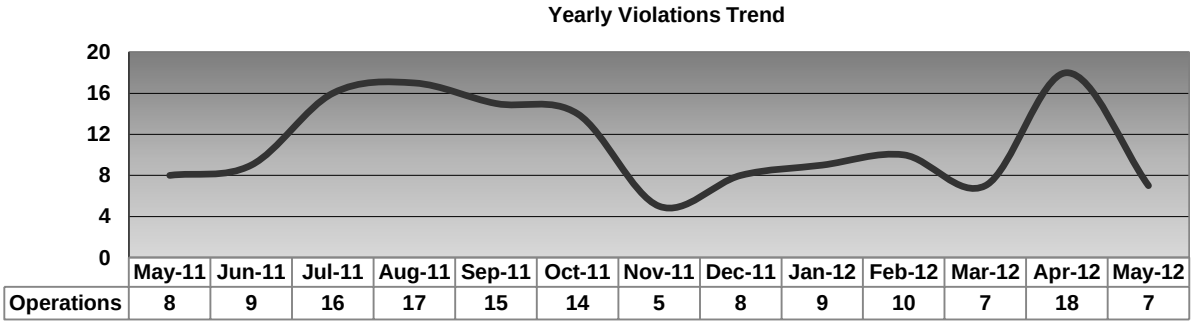
VII. Noise Violations

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 May 2012, there were 7 noise violations, a decrease of 7% from the 8 noise violations recorded during May 2011. A summary of noise violations for May 2012 is listed on attachment D.

Of the 9,178 aircraft operations recorded during the month of May 2012, 99.9% 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.

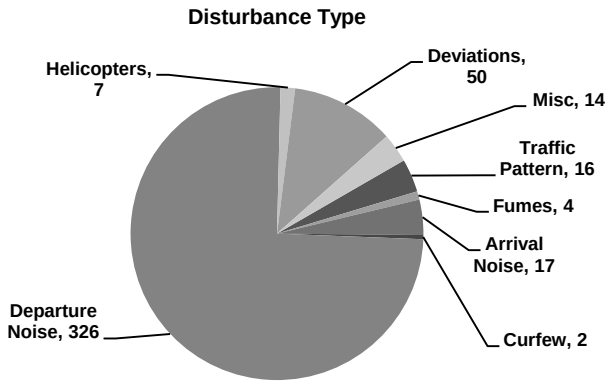


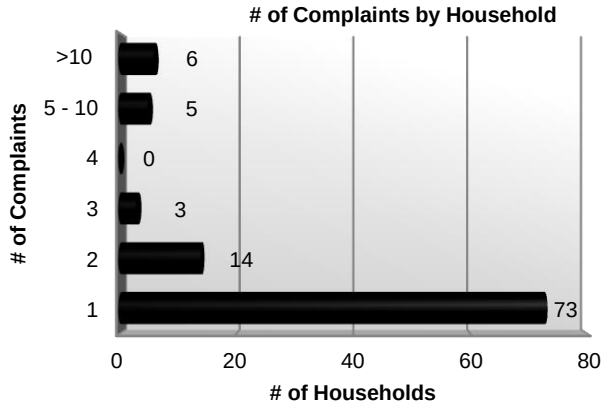


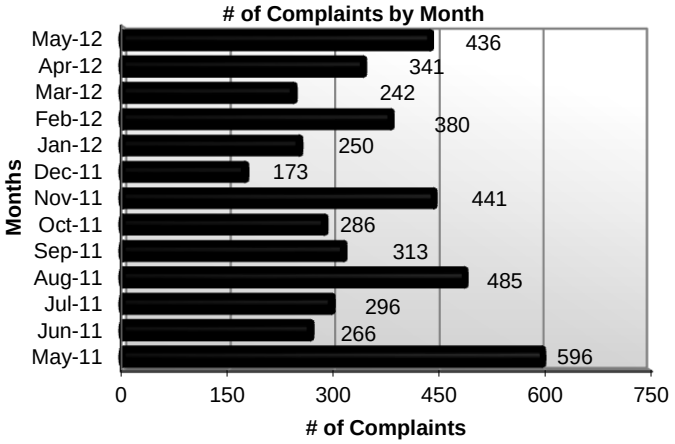
Aircraft & SENEL	95.1 to 95.9	96.0 to 96.9	97.0 to 97.9	98.0 to 98.9	99.0 to 99.9	100.0 to 104.9	105.0+	Total	%
Jet	1	3	1	0	0	1	0	**6**	**84%**
Propeller	1	0	0	0	0	0	0	**1**	**14%**
Helicopter	0	0	0	0	0	0	0	**0**	**0%**
Total:	**2**	**3**	**1**	**0**	**0**	**1**	**0**	**7**	
%	**29%**	**43%**	**14%**	**0%**	**0%**	**14%**	**0%**		**100%**

VIII. AIRCRAFT NOISE COMPLAINTS

During May 2012, Airport Noise Management staff received a total of 436 inquiries from 101 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 May 2012.







ATTACHMENT A
(Airport Traffic Record)

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	5/2012	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	13	95	0	108	4	0	4	112	112
2	0	36	165	0	201	185	0	185	386	498
3	0	29	178	0	207	162	0	162	369	867
4	0	14	186	0	200	142	0	142	342	1209
5	0	7	215	0	222	66	0	66	288	1497
6	0	11	209	0	220	40	0	40	260	1757
7	0	19	186	0	205	107	0	107	312	2069
8	0	12	148	0	160	18	0	18	178	2247
9	0	17	230	0	247	117	0	117	364	2611
10	0	16	147	0	163	100	0	100	263	2874
11	0	12	158	0	170	184	0	184	354	3228
12	0	10	128	0	138	22	0	22	160	3388
13	0	15	123	0	138	10	0	10	148	3536
14	0	13	134	0	147	103	0	103	250	3786
15	0	18	162	0	180	147	0	147	327	4113
16	0	21	207	0	228	149	0	149	377	4490
17	0	14	178	0	192	70	0	70	262	4752
18	0	10	207	0	217	161	0	161	378	5130
19	0	15	207	0	222	60	0	60	282	5412
20	0	9	198	0	207	28	0	28	235	5647
21	0	18	131	0	149	34	0	34	183	5830
22	0	24	187	0	211	214	0	214	425	6255
23	0	14	176	1	191	112	0	112	303	6558
24	0	29	227	0	256	133	0	133	389	6947
25	0	38	150	0	188	209	0	209	397	7344
26	0	10	176	0	186	102	0	102	288	7632
27	0	9	192	0	201	54	0	54	255	7887
28	0	24	189	0	213	43	0	43	256	8143
29	0	23	171	0	194	152	0	152	346	8489
30	0	23	218	0	241	99	0	99	340	8829
31	0	26	190	2	218	131	0	131	349	9178
TOTAL	0				6020	3158	0	3158	9178	

ATTACHMENT A
(FAA Airport Traffic Record)

FOR USE BY VFR TOWERS ONLY (ALL Approach Control Terminals MUST use FAA Form 7230-26)	*Instrument Operations on this side MUST COMPLETE*	5/2012 (1-2) MO. (3-4) 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	13	90	0	(16-19)	103	
2	0	36	95	0	(20-23)	131	
3	0	28	70	0	(24-27)	98	
4	0	14	72	0	(28-31)	86	
5	0	7	28	0	(32-35)	35	
6	0	11	53	0	(36-39)	64	
7	0	19	51	0	(40-43)	70	
8	0	12	94	0	(44-47)	106	
9	0	17	33	0	(48-51)	50	
10	0	16	55	0	(52-55)	71	
11	0	12	47	0	(56-59)	59	
12	0	10	69	0	(60-63)	79	
13	0	15	54	0	(64-67)	69	
14	0	13	35	0	(68-71)	48	
15	0	18	37	0	(72-75)	55	
16	0	21	27	0	(76-79)	48	
						(14-2)	
17	0	14	69	0	(16-19)	83	
18	0	10	33	0	(20-23)	43	
19	0	15	40	0	(24-27)	55	
20	0	9	62	0	(28-31)	71	
21	0	18	58	0	(32-35)	76	
22	0	24	49	0	(36-39)	73	
23	0	14	51	1	(40-43)	66	
24	0	29	72	0	(44-47)	101	
25	0	38	57	0	(48-51)	95	
26	0	10	36	0	(52-55)	46	
27	0	9	19	0	(56-59)	28	
28	0	22	41	0	(60-63)	63	
29	0	23	23	0	(64-67)	46	
30	0	23	32	0	(68-71)	55	
31	0	26	48	2	(72-75)	76	
TOTAL	0	546	1600	3		2149	
	(17-21)	(22-26)	(27-31)	(32-36)			
FACILITY USE							
FACILITY USE							

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

Voluntary Curfew Arrivals								
DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ENGINE
5/2/12	0:34	N17CX	C750	21	85.6	2	GLASS AVIATION	J
5/2/12	6:56	N335AP	BE9L	21	79.3	2	PARAMOUNT CITRUS LLC	TP
5/2/12	6:59	N3725L	PRM1	21	80.3	2	KMR AVIATION	J
5/4/12	6:29	N73WC	B300	21	86.8	2	CABLE AVIATION LLC	TP
5/4/12	6:43	N1563W	V35B	21	79.1	2	JAMES L ARMSTRONG TRUSTEE	SE
5/6/12	23:38	N359QS	C680	21	82.5	2	NET JETS AVIATION INC	J
5/8/12	23:10	N175AF	C172	21	DNR	2	AMERIFLYERS OF TEXAS INC	SE
5/10/12	6:57	N904PA	BE9L	21	80.9	2	PARAMOUNT CITRUS LLC	TP
5/12/12	0:41	N6503C	LC42	21	80.8	2	COLUMBIA AERO LLC	SE
5/12/12	7:51	N6GU	C680	21	83.5	2	CITY NATIONAL BANK	J
5/15/12	6:58	N584PC	BE58	21	80.8	2	PARAMOUNT CITRUS ASSOC	ME
5/15/12	23:35	N525DE	C25B	21	80.3	2	SIMON PHILIP TRUSTEE	J
5/15/12	23:42	N1459E	C172	21	DNR	2	RAVIV BARAK	SE
5/16/12	6:43	N3039X	F33A	21	72.0	2	ORTHOREDLANDS LEEASING LLC	SE
5/17/12	0:16	N782XJ	C750	21	86.0	2	XOJET INC	J
5/17/12	6:46	N3039X	F33A	21	79.6	2	ORTHOREDLANDS LEEASING LLC	SE
5/17/12	6:51	N335AP	C90GTI	21	80.7	2	PARAMOUNT CITRUS LLC	TP
5/18/12	6:41	N904PA	C90GT	21	80.9	2	PARAMOUNT CITRUS LLC	TP
5/18/12	23:10	N551LA	R44	21	DNR	2	LAW ENFORCEMENT	H
5/21/12	5:47	N23VA	EA50	21	78.1	2	VINEYARD OAKS AVIATION LLC	J
5/22/12	23:06	N353MV	C172	21	DNR	2	PIA AVIATION LLC	SE
5/24/12	6:19	N896SP	BE10	21	86.0	2	ROGERS HELICOPTERS INC	TP
5/24/12	23:15	N581JS	E50P	21	83.4	2	JETSUITE	J
5/25/12	0:44	N908FL	E135	21	87.3	2	FLIGHT OPTIONS LLC	J
5/25/12	23:57	N553V	LJ35A	21	82.5	2	MAYO AVIATION	J
5/26/12	23:42	N417C	C25C	21	80.8	2	GLASS AVIATION	J
5/28/12	5:43	N585JS	E50P	21	80.4	2	JETSUITE	J
5/28/12	7:50	N425QS	GLF4	21	87.3	2	NET JETS AVIATION INC	J
5/30/12	6:15	N44AE	PA34	21	83.7	2	DENNIS M PHELAN	SE
5/30/12	6:54	N904PA	BE9L	21	80.7	2	PARAMOUNT CITRUS LLC	TP

ATTACHMENT C
(Authorized Departures & Curfew Violations)

Authorized Curfew Departures

LIFEGUARD & PD DEPARTURES					
DATE	TIME	RWY	NUMBER	TYPE	OPERATION
5/1/12	6:28	21	N25PW	LJ25	LIFEGUARD

Curfew Violations

CURFEW DEPARTURES						
Date	Time	RWY	NUMBER	TYPE	OPERATION	FINES
5/15/2012	6:56	N/A	N807QS	C560	ENGINE START	$10,000

ATTACHMENT D
(Aircraft Noise Violations)

AIRCRAFT ENGINE CATEGORY LEGEND

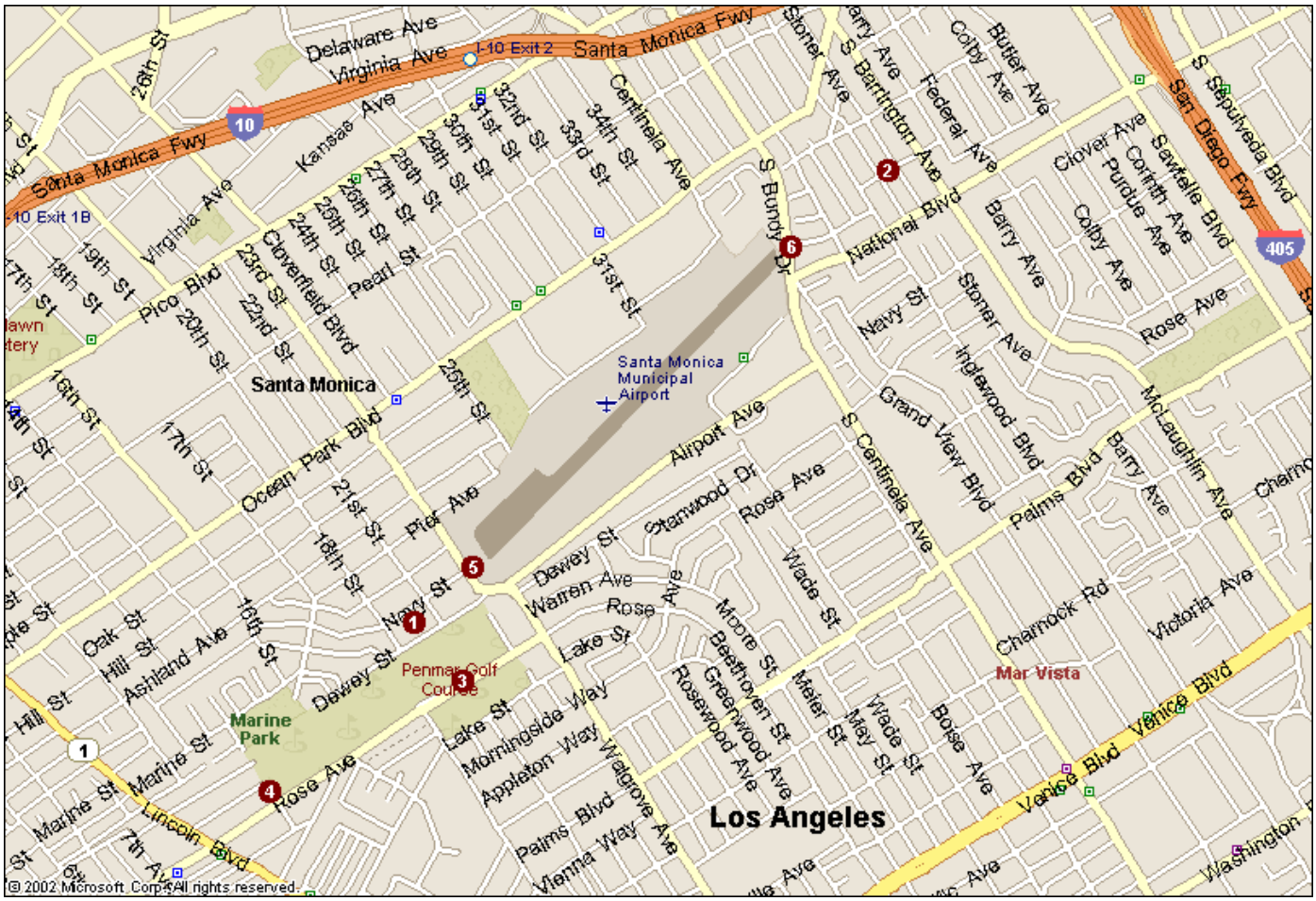
(J) = Jet, (ME) = Multi-Engine, (SE) = Single-Engine, (TP) = Turbo-Prop, (H) = Helicopter

DATE	TIME	NUMBER	TYPE	RWY	SEL	RMS	COMPANY NAME	ACTION	ENGINE
5/1/12	17:17	623KM	LJ35	21	96.7	1	DREAMLINE AVIATION LLC/QUARRY	WARNING	J
5/3/12	17:00	900MK	F900	21	97	1	NORTHERN ILLINOIS FLIGHT CENTE	WARNING	J
5/6/12	8:39	121JM	GLF4	21	100.2	1	SK TRAVEL LLC	WARNING	J
5/8/12	7:35	708GP	C25A	21	96.1	1	JET METHODS INC	WARNING	J
5/13/12	8:37	6311S	BE58	21	95.2	1	LLOYD NOBLE II TRUSTEE	WARNING	SE
5/14/12	10:14	549XJ	CL30	21	95.2	1	XOJET INC	WARNING	J
5/16/12	12:31	605WG	E135	21	96.8	1	NORTHEASTERN AVIATION CORPOI	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



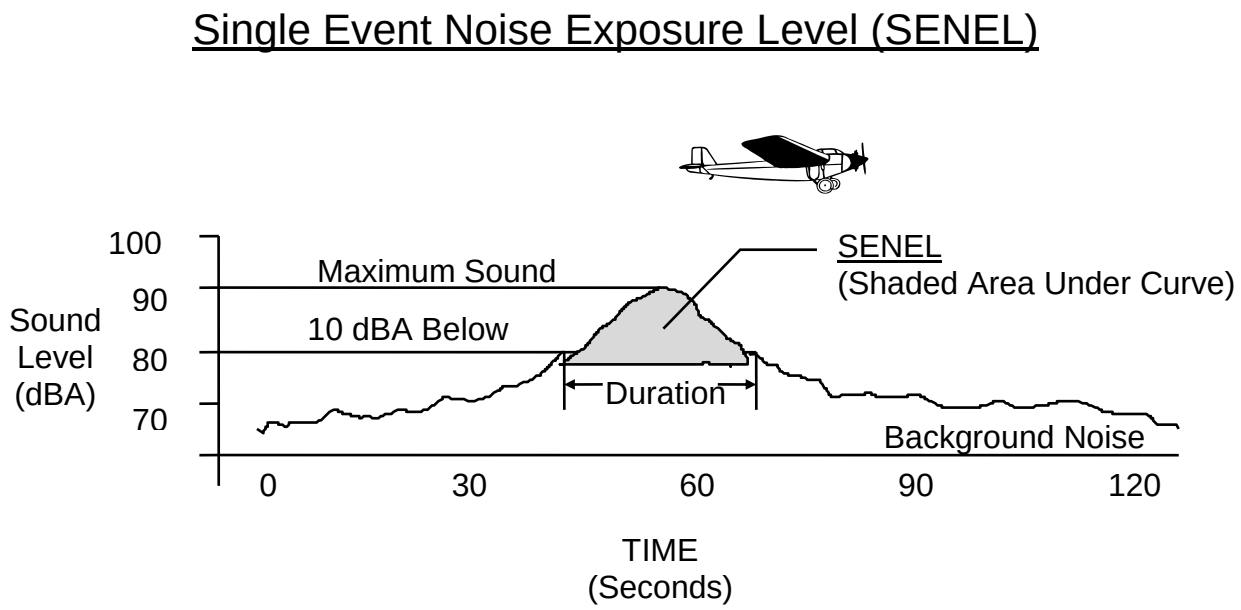
Note: ONLY Remote Monitoring Stations 1 & 2 are used for the Enforcement of the 95.0 dBA Single Event Noise Exposure Level (SENEL) maximum allowable noise level.

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.