

**Santa Monica Airport**  
**Noise Management Program**  
**April 2011 Report**



City of  
**Santa Monica™**

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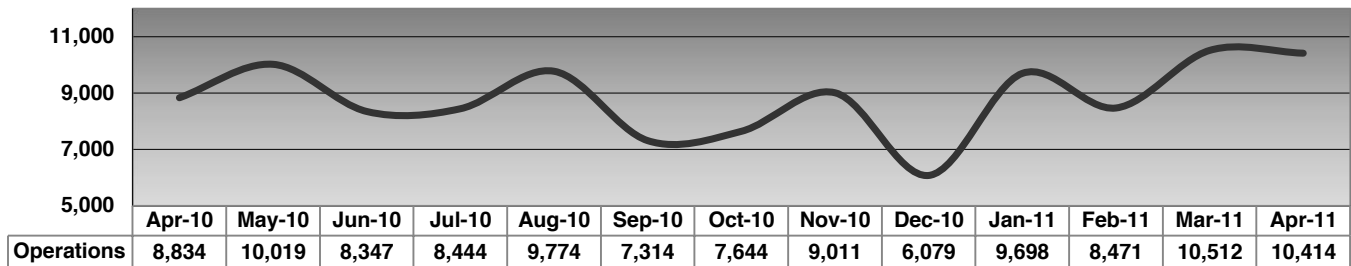
## I. Introduction

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 April 2011.

## 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 April 2011 was 10,414; which represents a 15% increase from the 8,834 operations recorded during April 2010. Approximately 18% of the operations were instrument flights (IFR transient), 44% were local flights (VFR local operations), and 38% itinerant flights (VFR transient). The total traffic count is recorded by the FAA control tower. See attachment A for the Airport Traffic Record.

Yearly Total Operations Trend

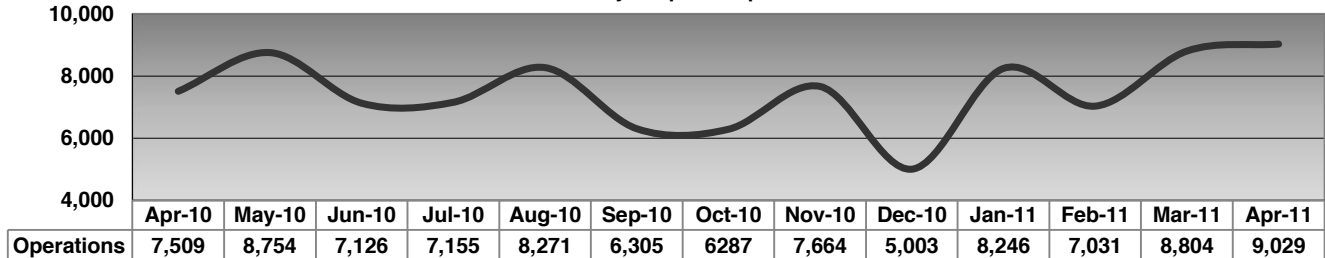


Following are breakdowns of the total operations grouped by aircraft type along with a graph for each type indicating each monthly aircraft operations trend during the preceding 12-month period.

### Propeller Aircraft Operations

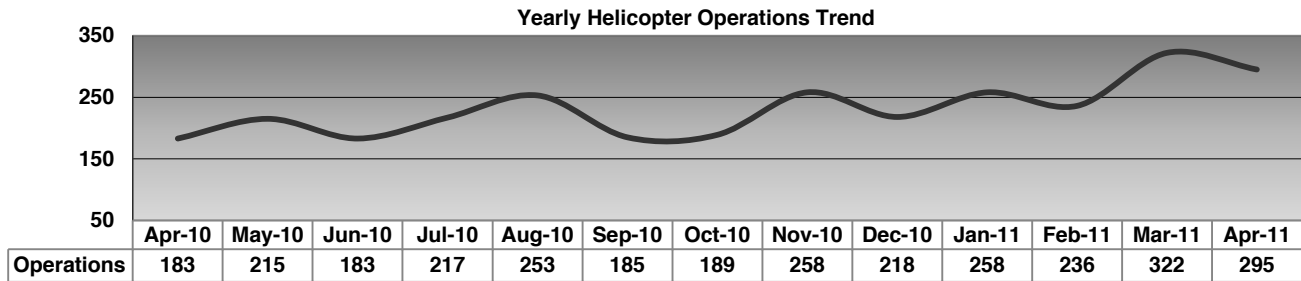
Of the monthly aircraft operations for April 2011, there were approximately 9,029 propeller aircraft operations, comprising approximately 87% of the total operations. Propeller aircraft operations for April 2011 increased 17% from the 7,509 propeller aircraft operations recorded during April 2010.

Yearly Propeller Operations Trend



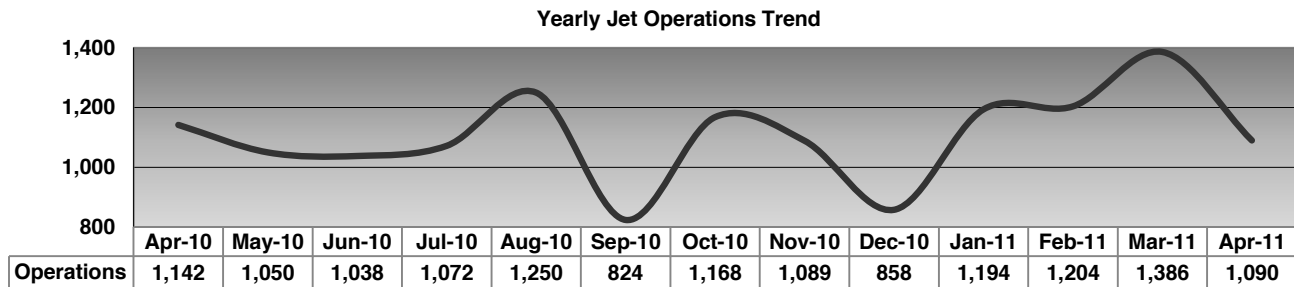
Helicopter Operations

Of the monthly aircraft operations for April 2011, there were approximately 295 helicopter operations, comprising approximately 3% of the total operations. Helicopter operations for April 2011 increased 38% from the 183 helicopter operations recorded during April 2010.

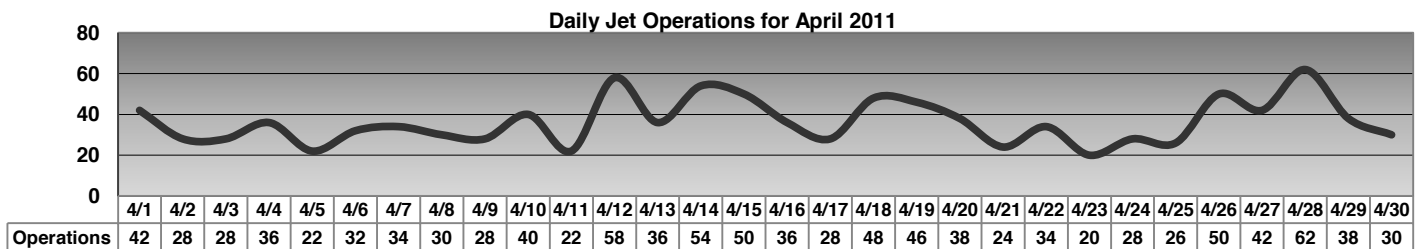


Jet Aircraft Operations

Of the monthly aircraft operations for April 2011, there were approximately 1,090 jet aircraft operations, comprising about 10% of the total operations. Jet aircraft operations for April 2011 decreased 5% from the 1,142 jet aircraft operations recorded during April 2010.

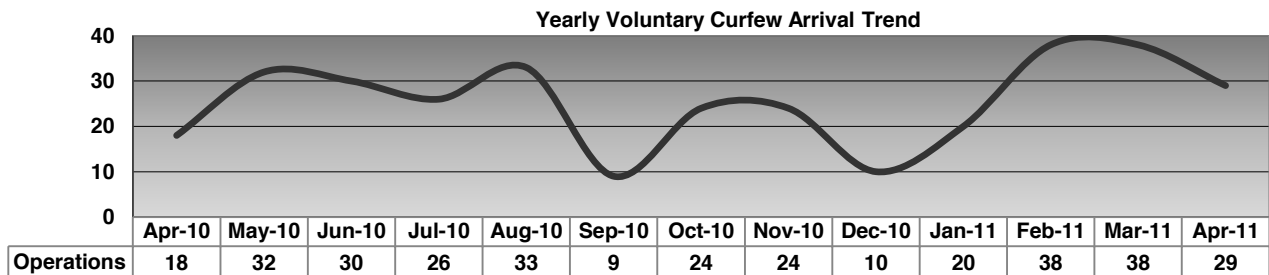
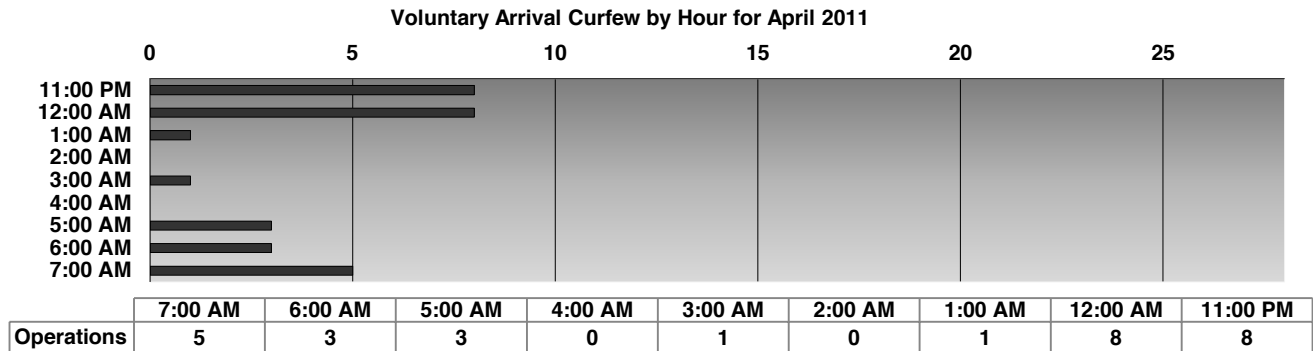


Jet operations vary significantly from day to day and often change with local civic & entertainment events and varying weather conditions. There are however, certain patterns which develop over time providing staff a better understanding of what to anticipate on a daily & weekly basis. Closely examining 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 April 2011 averaged 36 per day (or 18 daily arrivals & 18 daily departures.) The line graph below represents the daily operations for jet driven aircraft for the month of April 2011.



### III. Voluntary Arrival Curfew

During the month of April 2011, Airport Staff logged a total of 29 aircraft arrivals during the Voluntary Arrival Curfew (11:00 p.m. to 7:00 a.m. weekdays, 11:00 p.m. to 8:00 a.m. weekends/holidays) for an average of less than 1 arrival per night. The graph below depicts the number of VAC arrivals for each hour during the month of April 2011. For a listing of aircraft arrivals during the night hours, see attachment B.



### 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 sent a letter reminding them of the proper Noise Management procedures. During the month of April 2011 airport staff spent several hours observing aircraft adherence to the requested noise Management procedures. Staff sent advisory letters to those aircraft operators observed to be deviating from established flight tracks, requesting compliance with the Airport's 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. Curfew violators are subject to misdemeanor criminal prosecution.

During the month of April 2011 there were four authorized curfew departures. Curfew departures are listed on attachment C.

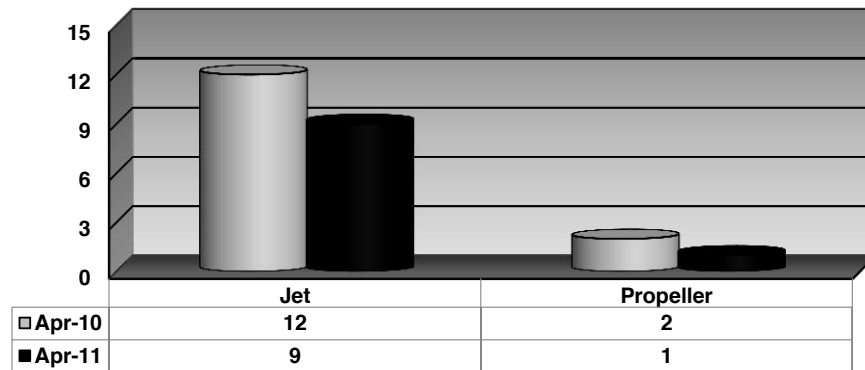
## VII. Noise Violations

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.)

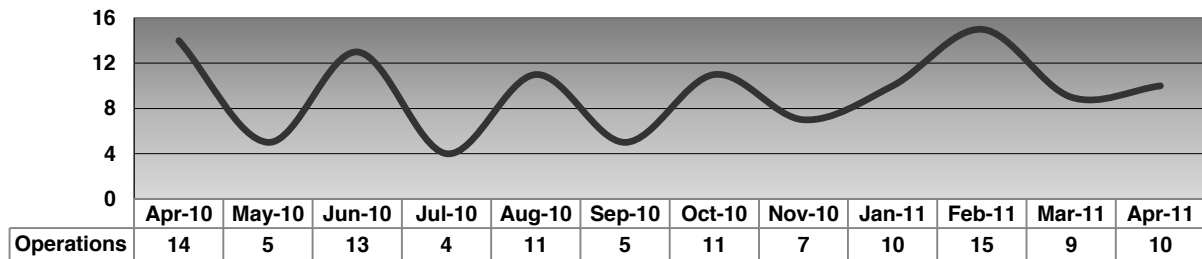
A violation occurs when an aircraft exceeds 95.0 dBA Single Event Noise Exposure Level. During the month of April 2011, there were 10 noise violations, a decrease of 29% from the 14 noise violations recorded during April 2010. A summary of noise violations for April 2011 is listed on attachment D.

Of the 10,414 aircraft operations recorded during the month of April 2011, 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

Noise Violations by Aircraft Type





Yearly Violations Trend



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	4	0	2	3	1	0	0	10	100%
Propeller	0	0	0	0	0	0	0	0	0%
Helicopter	0	0	0	0	0	0	0	0	0%
<b>Total:</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>	
<b>%</b>	<b>40%</b>	<b>50%</b>	<b>20%</b>	<b>30%</b>	<b>10%</b>	<b>0%</b>	<b>0%</b>		<b>100%</b>

# ATTACHMENT A

<b>AIRPORT TRAFFIC RECORD</b>		FACILITY NAME		LOCATION		4/2011		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) FACILITY TYPE ("X" ONE) (11)		APPROACH CONTROL TOWERS  <input type="checkbox"/> B. RADAR <input type="checkbox"/> C. LIMITED RADAR <input type="checkbox"/> D. NON-RADAR		<input checked="" type="checkbox"/> E. VFR TOWER <input type="checkbox"/> G. CONTRACT TOWER (Continue on reverse)		FACILITY TYPE CHANGED (12) <input type="checkbox"/> YES		IF DAILY HOURS OF OPERATION HAVE CHANGED, ENTER NEW HOURS <span style="float: right;">HRS. 10THS</span>  <span style="float: right;">(77-78) (79)</span>		
AIRPORT OPERATIONS COUNT										
ITINERANT LOCAL										
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	TOTAL OPERATIONS	SPECIAL USE (47-51)
1	0	11	236	0	247	163	0	163	410	410
2	0	20	101	0	121	106	0	106	227	637
3	0	13	202	0	215	140	0	140	355	992
4	0	14	211	0	225	162	0	162	387	1379
5	0	15	192	0	207	105	0	105	312	1691
6	0	15	150	0	165	288	0	288	453	2144
7	0	6	99	0	105	166	0	166	271	2415
8	0	16	152	0	168	349	0	349	517	2932
9	0	17	187	0	204	149	0	149	353	3285
10	0	20	240	0	260	150	0	150	410	3695
11	0	8	170	0	178	134	0	134	312	4007
12	0	24	195	0	219	130	0	130	349	4356
13	0	13	169	0	182	214	0	214	396	4752
14	0	14	211	0	225	106	0	106	331	5083
15	0	12	212	0	224	232	0	232	456	5539
16	0	11	243	1	255	76	0	76	331	5870
17	0	9	200	0	209	23	0	23	232	6102
18	0	25	144	0	169	146	0	146	315	6417
19	0	17	148	15	180	356	0	356	536	6953
20	0	22	142	0	164	189	0	189	353	7306
21	0	6	70	0	76	146	0	146	222	7528
22	0	16	211	0	227	140	0	140	367	7895
23	0	12	252	0	264	51	0	51	315	8210
24	0	17	94	0	111	30	0	30	141	8351
25	0	12	158	0	170	163	0	163	333	8684
26	0	22	169	0	191	72	0	72	263	8947
27	0	14	199	0	213	165	0	165	378	9325
28	0	29	241	0	270	160	0	160	430	9755
29	0	27	201	4	232	130	0	130	362	10117
30	0	6	209	0	215	82	0	82	297	10414
31	0	0	0	0	0	0	0	0	0	10414
<b>TOTAL</b>	0				5891	4523	0	4523	10414	

## ATTACHMENT A (Airport Traffic Record)

<b>THIS SIDE</b> <b>FOR USE BY VFR TOWERS ONLY</b> (ALL Approach Control Terminals MUST use FAA Form 7230-26)					<b>ALL VFR Towers recording</b> <b>Instrument Operations</b> <i>on this side</i> <b>MUST COMPLETE</b>		4/2011 (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	11	56	0	(16-19)	67			
2	0	20	62	0	(20-23)	82			
3	0	13	65	0	(24-27)	78			
4	0	14	44	0	(28-31)	58			
5	0	15	56	0	(32-35)	71			
6	0	15	39	0	(36-39)	54			
7	0	6	49	0	(40-43)	55			
8	0	16	32	0	(44-47)	48			
9	0	17	26	0	(48-51)	43			
10	0	20	34	0	(52-55)	54			
11	0	8	36	0	(56-59)	44			
12	0	23	65	0	(60-63)	88			
13	0	13	50	0	(64-67)	63			
14	0	14	58	0	(68-71)	72			
15	0	12	58	0	(72-75)	70			
16	0	11	28	0	(76-79)	39			
<b>(14-2)</b>									
17	0	9	56	0	(16-19)	65			
18	0	25	81	0	(20-23)	106			
19	0	17	63	0	(24-27)	80			
20	0	22	61	0	(28-31)	83			
21	0	6	42	0	(32-35)	48			
22	0	16	46	0	(36-39)	62			
23	0	12	39	0	(40-43)	51			
24	0	17	41	0	(44-47)	58			
25	0	12	29	0	(48-51)	41			
26	0	22	45	0	(52-55)	67			
27	0	14	44	0	(56-59)	58			
28	0	29	61	0	(60-63)	90			
29	0	27	39	0	(64-67)	66			
30	0	6	43	0	(68-71)	49			
31	0	0	0	0	(72-75)	0			
TOTAL	0	462	1448	0		1910			
<b>(17-21)</b> <b>(22-26)</b> <b>(27-31)</b> <b>(32-36)</b>									
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
4/14/11	0:34	4252T	PA28	21	DNR	2	FLIGHTWING EQUIPMENT CORP	SE
4/20/11	0:40	926CT	SR22	21	DNR	2	TITAN LAND CO LLC	SE
4/17/11	0:41	297GB	GLF4	21	DNR	2	CLAY LACY AVIATION INC	J
4/17/11	0:49	894QS	GLF4	21	DNR	2	NET JETS AVIATION INC	J
4/7/11	0:52	500M	CL60	21	DNR	2	COOK AIRCRAFT LEASING INC	J
4/16/11	0:52	902H	GLF4	21	DNR	2	LEONARD GREEN & PARTNERS L.P.	J
4/4/11	0:57	109GX	G100	21	DNR	2	COOK AIRCRAFT LEASING INC	J
4/27/11	0:59	817CJ	C25C	3	89.8	1	GLASS AVIATION	J
4/2/11	1:05	11630	C150	21	DNR	2	BEDROCK INVESTMENTS LLC	SE
4/9/11	3:57	43MF	LJ35A	21	DNR	2	MED FLIGHT AIR AMBULANCE INC	J
4/23/11	5:46	351PJ	LJ35A	21	85.3	2	PREMIER JETS INC	J
4/19/11	5:58	568TT	BE20	21	DNR	2	PACIFIC CREST AIR LLC	TP
4/28/11	5:59	1066E	PA32	21	81.5	2	SPIRIT OF KITTY HAWK INC	SE
4/20/11	6:39	2722D	C441	21	DNR	2	USA GASOLINE CORPORATION	TP
4/14/11	6:44	101CP	C560	21	DNR	2	CJ UNO LLC	J
4/27/11	6:55	584PC	BE58	21	84.0	2	PARAMOUNT CITRUS ASSOC	ME
4/3/11	7:31	731FF	A350	21	DNR	2	ZULU AIR LTD	H
4/16/11	7:34	79201	C172	21	DNR	2	UNIVERSAL AVIATORS ACADEMY INC	SE
4/16/11	7:42	5212Y	C162	3	DNR	1	REGISTRATION PENDING	SE
4/30/11	7:44	168JG	BE36	21	83.2	2	JOSEPH C MCMURRAY DMD INC	SE
4/30/11	7:59	2199T	PA28	3	DNR	1	MONSANTO DOROTHY S	SE
4/27/11	23:09	201XT	M20J	21	DNR	2	ULTIMATE ATHLETE CORP LLC	SE
4/16/11	23:10	817CJ	C25C	21	DNR	2	GLASS AVIATION	J
4/4/11	23:12	1111X	SPRTRCSR	21	DNR	2	SANTA MONICA FLYERS INC	SE
4/8/11	23:19	241CW	B100	21	DNR	2	BLOSSOM VALLEY AVIATION LLC	TP
4/22/11	23:27	811JT	SR22	21	DNR	2	ALEXANDER DORIS	SE
4/30/11	23:31	551LA	R44	3	DNR	1	LAW ENFORCEMENT	H
4/15/11	23:42	92UP	HAWKER 800XP	21	DNR	2	SUN AIR JETS LLC	J
4/16/11	23:59	23816	C182	21	DNR	2	HUNDAL MEDICAL CORP	SE

**ATTACHMENT C  
(Curfew Violations)**

**Authorized Curfew Departures**

Date	Time	AC Number	AC TYPE	Operation	RWY	Oerator
4/2/11	23:18	427MA	B222	LIFE FLIGHT	3	MERCY AIR SERVICES INC
4/9/11	0:17	241CW	B100	LIFE FLIGHT	21	BLOSSOM VALLEY AVIATION LLC
4/23/11	7:08	351PJ	LJ35	LIFE FLIGHT	21	PREMIER JETS INC
4/30/11	23:00	551LA	R44	LAW ENFORCEMENT	3	LAW ENFORCEMENT PD65

**Un-authorized Curfew Violations**

Date	Time	Actype	Action	Amount
NONE				

**ATTACHMENT D  
(Aircraft Noise Violations)**

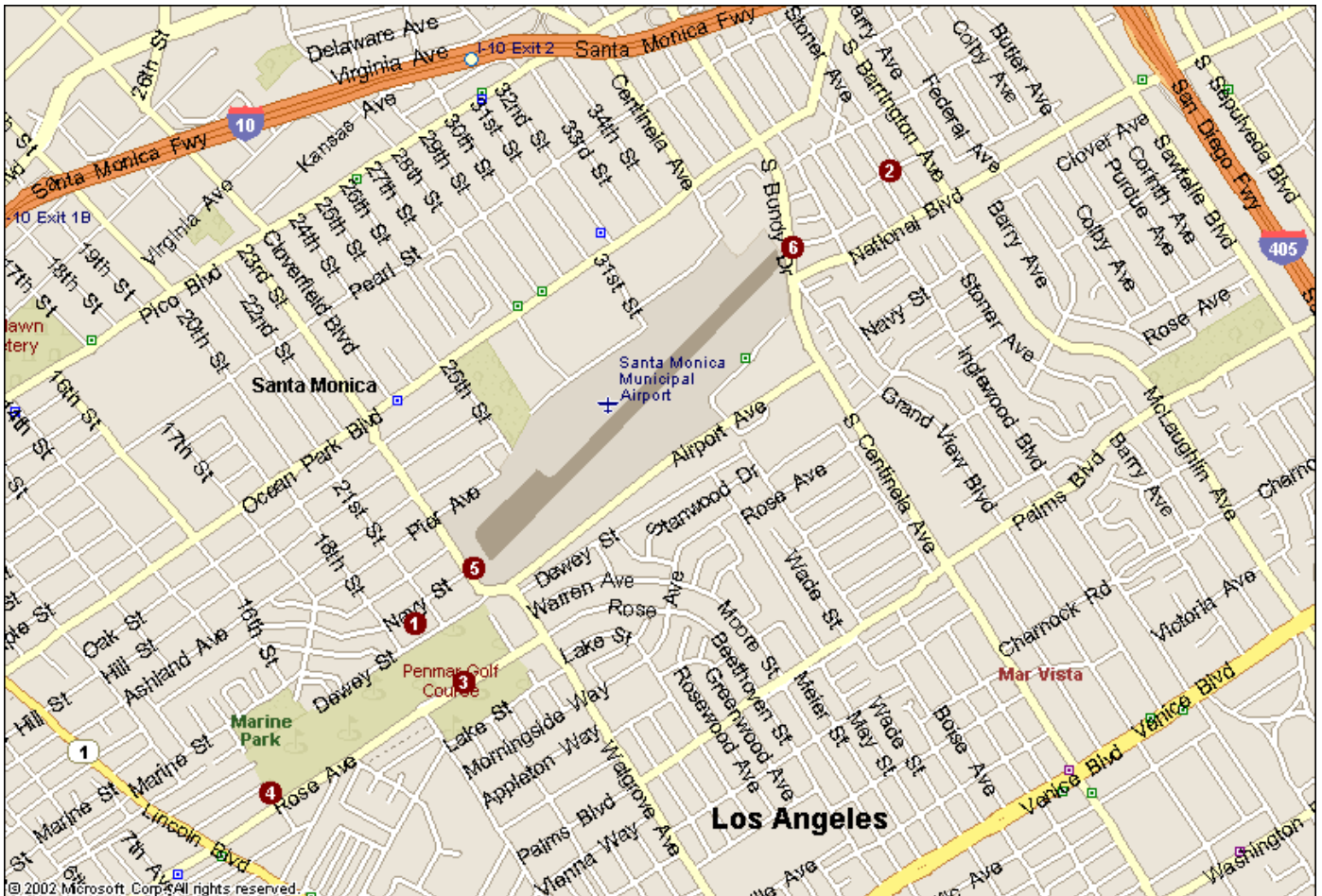
**AIRCRAFT ENGINE CATEGORY LEGEND**

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

DATE	TIME	NUMBER	TYPE	RWY	SEL	RMS	COMPANY NAME	ACTION	ENGINE
4/2/11	13:59	817MB	C650	21	99.0	1	CRYSTAL AIR AVIATION	WARNING	J
4/2/11	18:35	881A	S550	21	95.1	1	MACH ONE AIR CHARTERS	WARNING	J
4/7/11	19:03	411RE	MU30	21	97.9	1	ALA JETS	WARNING	TP
4/11/11	11:02	411RE	MU30	21	98.6	1	ALA JETS	WARNING	J
4/11/11	15:22	660PA	C650	21	95.6	1	IAO INC	WARNING	J
4/14/11	14:19	297GB	GLF4	21	98.0	1	CLAYLACY AVIATION	WARNING	J
4/15/11	11:32	252CV	C560	21	97.3	1	PILATUS MONTANA LLC	WARNING	J
4/15/11	12:00	618RL	CL60	21	95.5	1	KMR AVIATION	WARNING	J
4/17/11	13:23	297GB	GLF4	21	95.5	1	CLAYLACY AVIATION	WARNING	J
4/27/11	12:00	28VL	F900EX	21	98.0	1	BUSINESS AVIATION LTD	WARNING	J

**ATTACHMENT E**  
**Location of Remote Noise Monitoring Stations (RMS)**

- RMS – 1** 18<sup>th</sup> 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** 23<sup>rd</sup> 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)

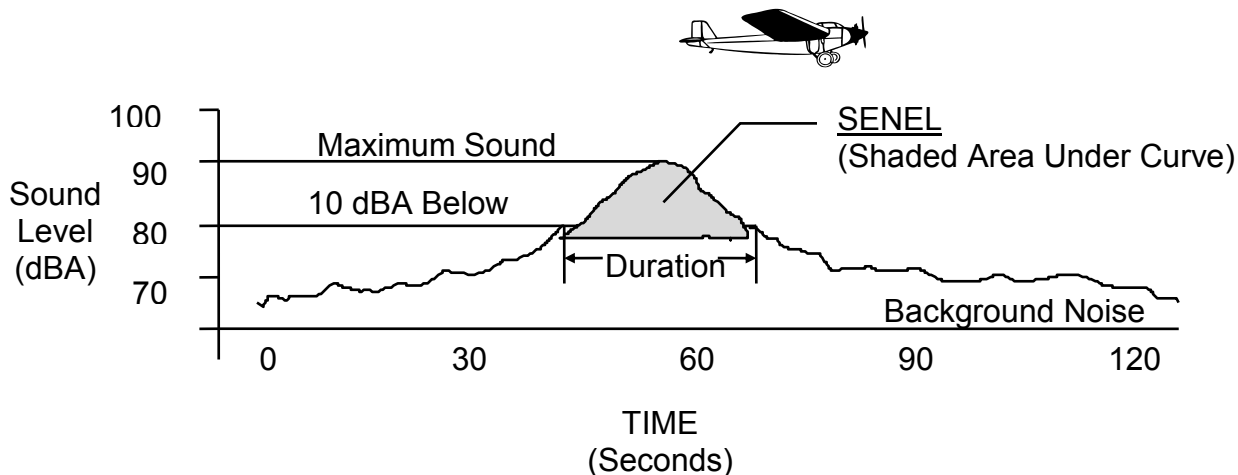
### Definition of Single Event Noise Exposure Level (SENEL)

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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.

### Single Event Noise Exposure Level (SENEL)



**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.