ITEM 5

Santa Monica Airport

Noise Management Program

December 2012 Report

City of
Santa Monica™

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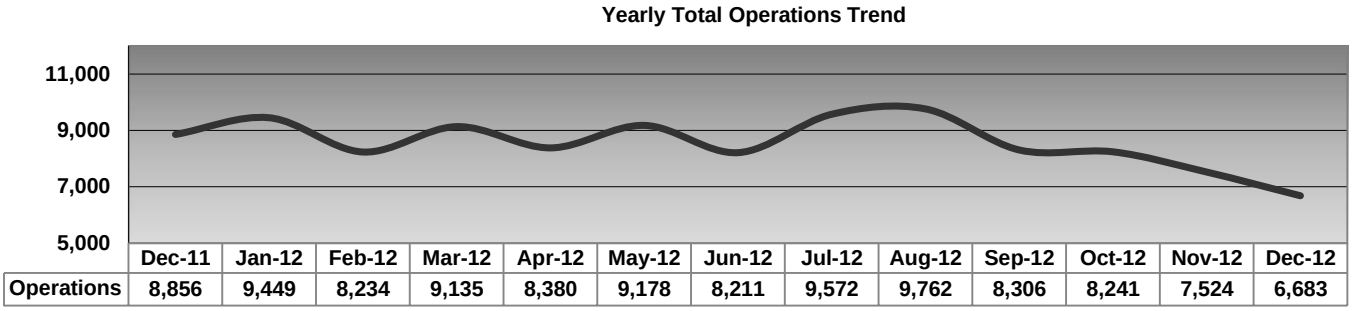
I. Introduction

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 December 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 December 2012 was 6,683; which represents a 25% decrease from the 8,856 operations recorded during December 2011. Approximately 26% of the operations were instrument flights (IFR transient), 34% were local flights (VFR local operations), and 40% itinerant flights (VFR transient). The total traffic count is recorded by the FAA control tower. See attachment A for the Airport Traffic Record.

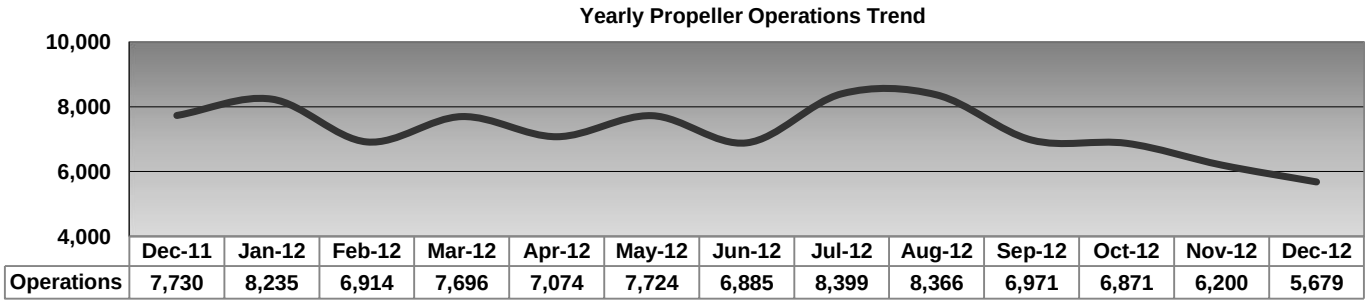


	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Operations	8,856	9,449	8,234	9,135	8,380	9,178	8,211	9,572	9,762	8,306	8,241	7,524	6,683

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

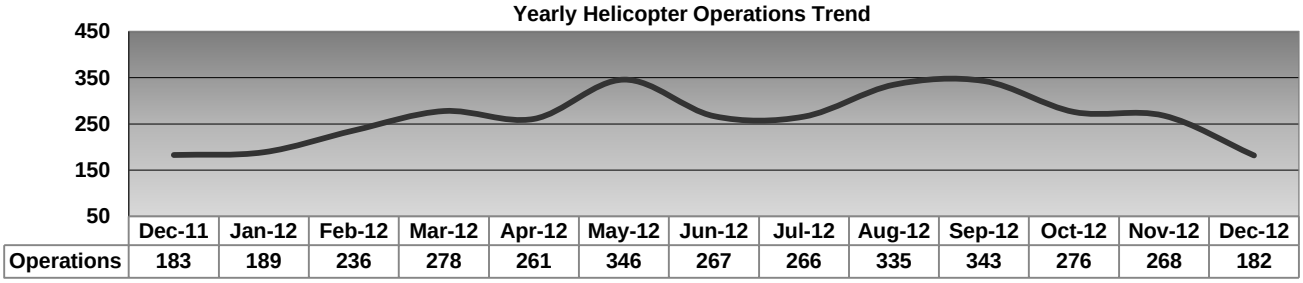
There were approximately 5,679 propeller aircraft operations, comprising approximately 85% of the total operations. Propeller aircraft operations for December 2012 decreased 27% from the 7,730 propeller aircraft operations recorded during December 2011.



	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Operations	7,730	8,235	6,914	7,696	7,074	7,724	6,885	8,399	8,366	6,971	6,871	6,200	5,679

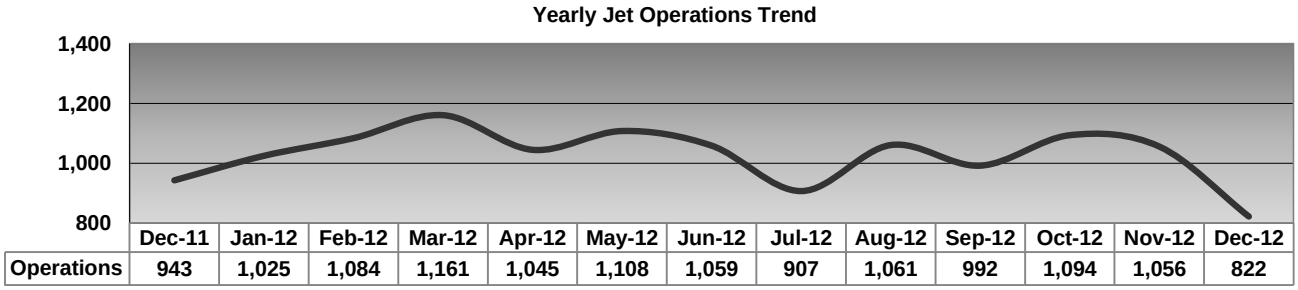
Helicopter Operations

Of the monthly aircraft operations for December 2012, there were approximately 182 helicopter operations, comprising approximately 3% of the total operations. Helicopter operations for December 2012 were practically the same from the helicopter operations recorded in December 2011.

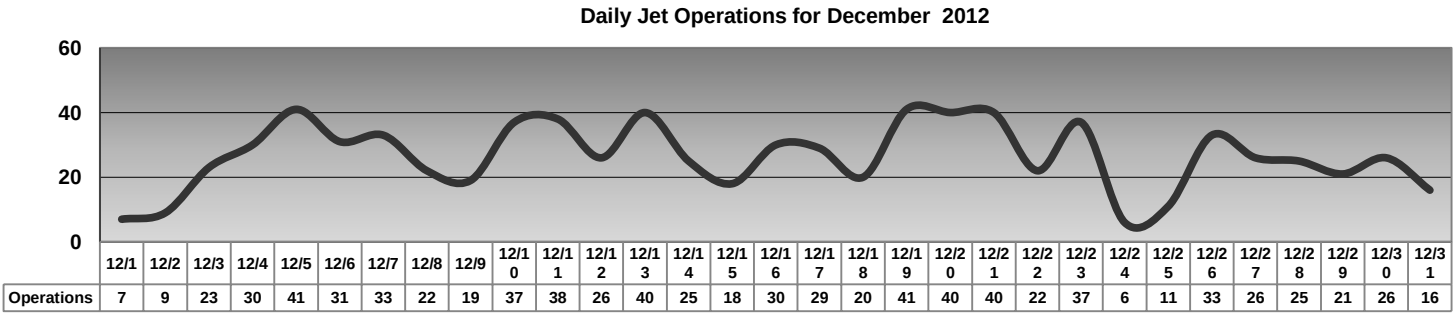


Jet Aircraft Operations

Of the monthly aircraft operations for December 2012, there were approximately 822 jet aircraft operations, comprising approximately 12**%** of the total operations. Jet aircraft operations for December 2012 decreased 13% from the 943 jet aircraft operations recorded during December 2011.

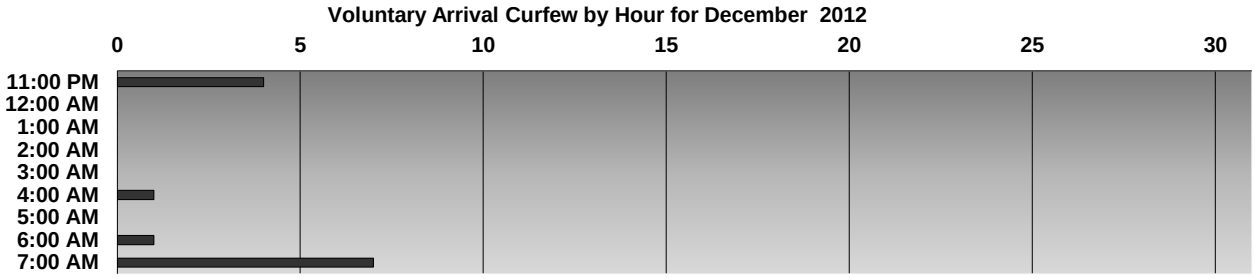


Jet operations vary significantly from day to day and often change with local civic & entertainment events and varying weather conditions. There are however, certain patterns which develop over time providing staff a better understanding of what to anticipate on a daily & weekly basis. Closely examining 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 December 2012 averaged 27 per day. The line graph below represents the daily operations for jet driven aircraft for the month of December 2012.

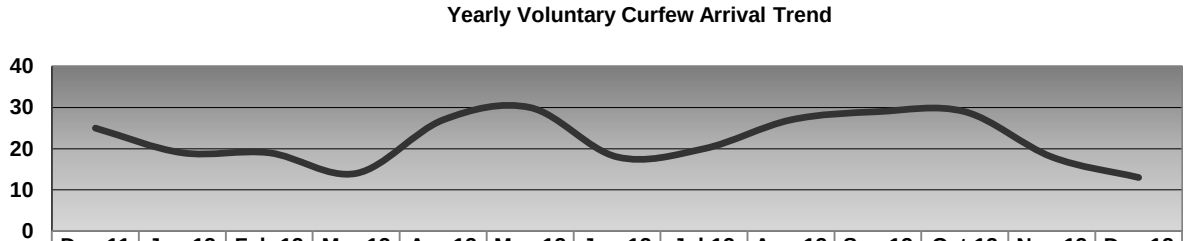


III. Voluntary Arrival Curfew

During the month of December 2012, Airport Staff logged a total of 13 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 December 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	7	1	0	1	0	0	0	0	4



	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Operations	25	19	19	14	27	30	18	20	27	29	29	18	13

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 December 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

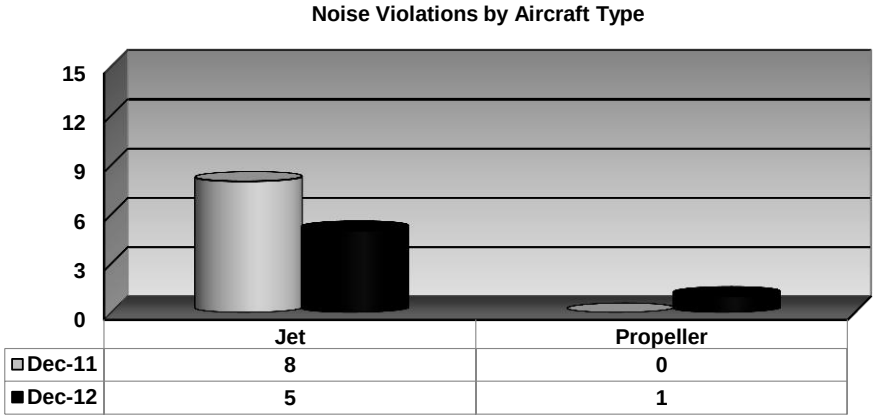
The night departure curfew prohibits takeoffs or engine startups between 11pm and 7am Monday through Friday, or until 8am on weekends and holidays. Exceptions are allowed for bona fide medical or public safety emergencies. During the month of December 2012 there were no authorized curfew departures,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

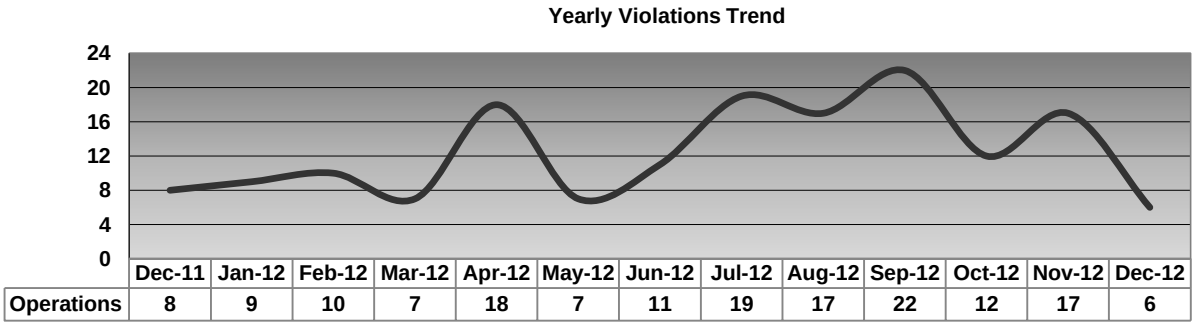
VII. Noise Violations

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 December 2012, there were 6 noise violations, a decrease of 25% from the 8 noise violations recorded during December 2011. A summary of noise violations for December 2012 is listed on attachment D.

Of the 6,683 aircraft operations recorded during the month of December 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.

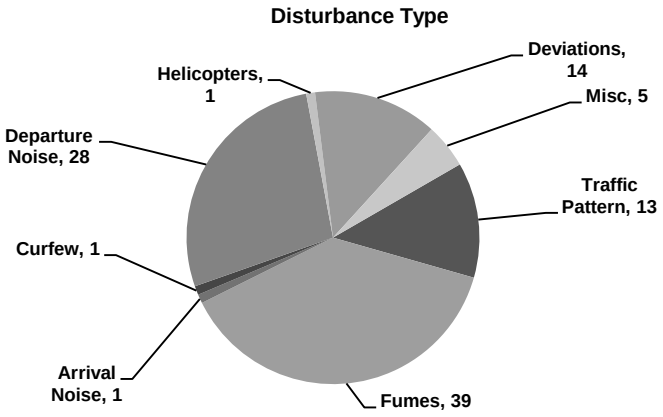


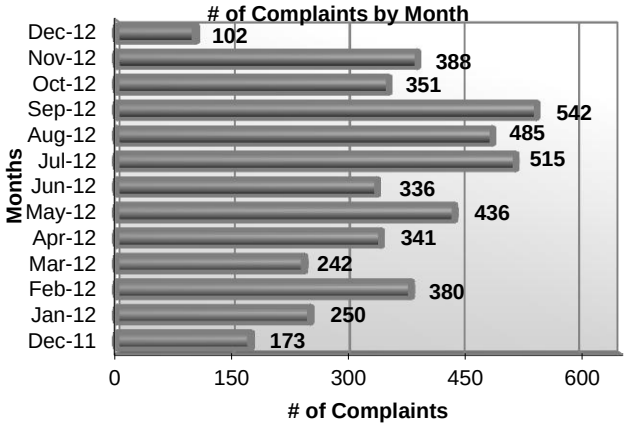


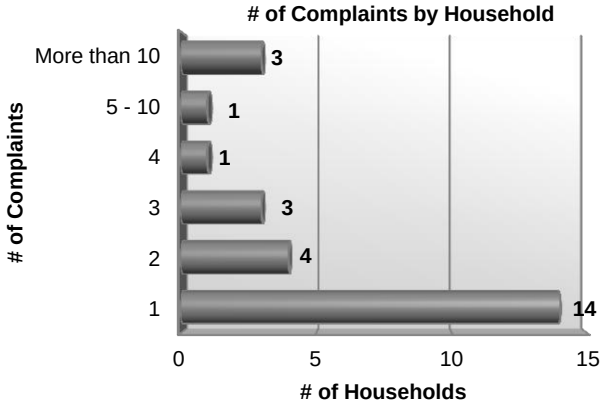
Aircraft & SENEL	95.1 to 95.9	96.0 to 96.9	97.0 to 97.9	98.0 to 98.9	99.0 to 99.9	100.0 to 104.9	105.0+	Total	%
Jet	4	1	0	0	0	0	0	**5**	**83%**
Propeller	1	0	0	0	0	0	0	**1**	**17%**
Helicopter	0	0	0	0	0	0	0	**0**	**0%**
Total:	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	
%	**83%**	**17%**	**0%**	**0%**	**0%**	**0%**	**0%**		**100%**

VIII. AIRCRAFT NOISE COMPLAINTS

During December 2012, Airport Noise Management staff received a total of 102 inquiries from 26 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 December 2012.







ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	12/2012	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	4	45	0	49	2	0	2	51	51
2	0	10	42	0	52	16	0	16	68	119
3	0	17	77	0	94	12	0	12	106	225
4	0	19	139	0	158	113	0	113	271	496
5	0	15	153	0	168	37	0	37	205	701
6	0	14	171	0	185	127	0	127	312	1013
7	0	19	140	1	160	44	0	44	204	1217
8	0	17	111	0	128	7	0	7	135	1352
9	0	13	126	0	139	38	0	38	177	1529
10	0	22	201	0	223	134	0	134	357	1886
11	0	12	212	0	224	146	0	146	370	2256
12	0	11	124	0	135	172	0	172	307	2563
13	0	22	153	0	175	87	0	87	262	2825
14	0	16	173	0	189	181	0	181	370	3195
15	0	8	177	0	185	69	0	69	254	3449
16	0	20	54	0	74	12	0	12	86	3535
17	0	15	101	0	116	171	0	171	287	3822
18	0	13	91	0	104	55	0	55	159	3981
19	0	27	179	0	206	137	0	137	343	4324
20	0	17	183	0	200	96	0	96	296	4620
21	0	27	184	0	211	51	0	51	262	4882
22	0	25	146	0	171	82	0	82	253	5135
23	0	22	82	0	104	54	0	54	158	5293
24	0	4	48	0	52	60	0	60	112	5405
25	0	11	31	0	42	26	0	26	68	5473
26	0	16	97	0	113	44	0	44	157	5630
27	0	14	160	0	174	75	0	75	249	5879
28	0	17	185	0	202	82	0	82	284	6163
29	0	9	48	0	57	8	0	8	65	6228
30	0	16	136	0	152	20	0	20	172	6400
31	0	12	159	0	171	112	0	112	283	6683
TOTAL	0				4413	2270	0	2270	6683	

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	12/2012 (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	4	34	0	(16-19)	38	
2	0	10	40	0	(20-23)	50	
3	0	17	55	0	(24-27)	72	
4	0	19	60	0	(28-31)	79	
5	0	15	73	0	(32-35)	88	
6	0	14	66	0	(36-39)	80	
7	0	17	57	1	(40-43)	75	
8	0	17	59	0	(44-47)	76	
9	0	13	28	0	(48-51)	41	
10	0	21	41	0	(52-55)	62	
11	0	12	46	0	(56-59)	58	
12	0	11	58	0	(60-63)	69	
13	0	22	43	0	(64-67)	65	
14	0	16	52	0	(68-71)	68	
15	0	8	31	0	(72-75)	39	
16	0	20	48	0	(76-79)	68	
						(14-2)	
17	0	15	54	0	(16-19)	69	
18	0	12	40	0	(20-23)	52	
19	0	26	39	0	(24-27)	65	
20	0	17	39	0	(28-31)	56	
21	0	22	39	0	(32-35)	61	
22	0	25	27	0	(36-39)	52	
23	0	21	41	0	(40-43)	62	
24	0	4	19	0	(44-47)	23	
25	0	11	8	0	(48-51)	19	
26	0	16	44	0	(52-55)	60	
27	0	13	28	0	(56-59)	41	
28	0	17	29	0	(60-63)	46	
29	0	9	23	0	(64-67)	32	
30	0	16	26	0	(68-71)	42	
31	0	12	24	0	(72-75)	36	
TOTAL	0	472	1271	1		1744	
	(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
12/1/12	7:46	N686RC	C550	21	N/A	2	ASPEN AIR LEASING LLC	J
12/2/12	7:40	N60DM	C340	21	N/A	2	DATOM INC	ME
12/11/12	23:09	N311AF	S550	21	84.2	2	AERO FILM	J
12/14/12	6:57	N883PJ	SR20	21	DNR	2	Edward Hood	SE
12/18/12	23:35	N581JS	E50P	21	80.2	2	JETSUITE	J
12/19/12	4:45	N311AF	S550	3	85.4	1	AERO FILM	J
12/19/12	23:11	N782XJ	C750	21	83.1	2	XOJET INC	J
12/23/12	7:36	N465TM	BE40	21	86.9	2	TRAVEL MANAGEMENT COMPANY LT	J
12/23/12	7:46	N428CS	C25B	21	81.4	2	CITATIONSHARES SALES INC	J
12/23/12	23:48	N445LX	BE40	21	85.4	2	WELLS FARGO BANK NORTHWEST N/	J
12/29/12	7:52	N623DT	E50P	21	78.5	2	CARSON CAPITAL CORPORATION	J
12/29/12	7:54	N1368C	SR22	21	73.7	2	DALE E CARSON	SE
12/30/12	7:58	N124LZ	SR22	21	DNR	2	LIMA ZULU AIRCRAFT CORP	SE

ATTACHMENT C
(Authorized Departures & Curfew Violations)

Authorized Curfew Departures

No Authorized Curfew Departures

Curfew Violations

No Curfew Violations

ATTACHMENT D
(Aircraft Noise Violations)

AIRCRAFT ENGINE CATEGORY LEGEND

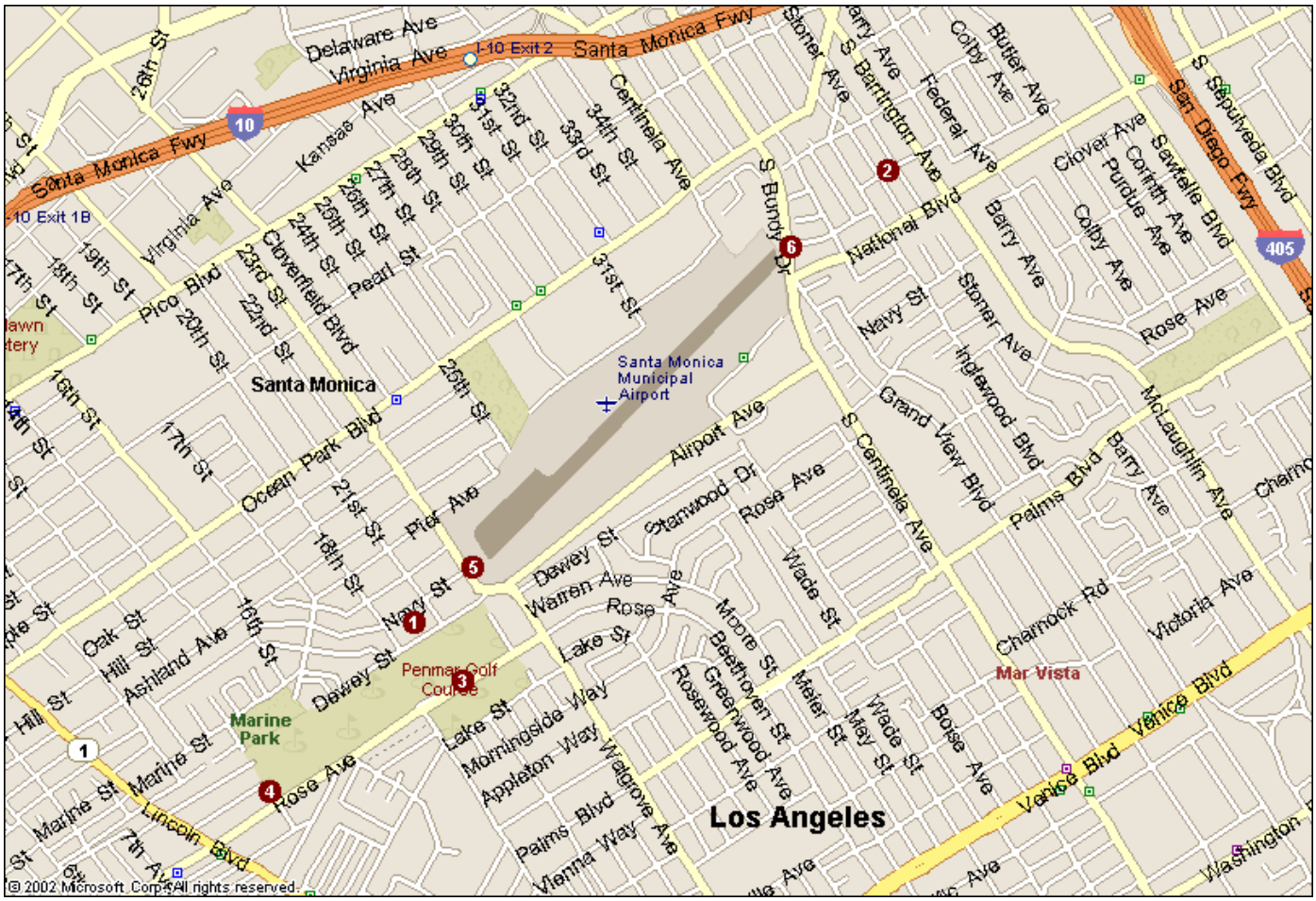
(J) = Jet, (ME) = Multi-Engine, (SE) = Single-Engine, (TP) = Turbo-Prop, (H) = Helicopter

DATE	TIME	NUMBER	TYPE	RWY	SEL	RMS	COMPANY NAME	ACTION	ENGINE
12/4/12	10:37	CGVMP	HAWKER 900XP	21	95.3	1	MORNINGSTAR AIR EXPRESS	WARNING	J
12/4/12	16:51	N689WC	FA10	21	96.2	1	BLEEKER HOLDINGS LLC/WATERSID	WARNING	J
12/5/12	19:23	N392AK	GLF4	21	95.9	1	TALON AIR INC	WARNING	J
12/13/12	10:14	N81SF	HAWKER 800XP	21	95.3	1	BROADWAY AIR CORPORATION	WARNING	J
12/15/12	18:28	N14TG	PA31	21	95.7	1	FLYING BULL AVIATION LLC	WARNING	ME
12/30/12	9:25	N157AL	F2TH	21	95.5	1	TWC AVIATION	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



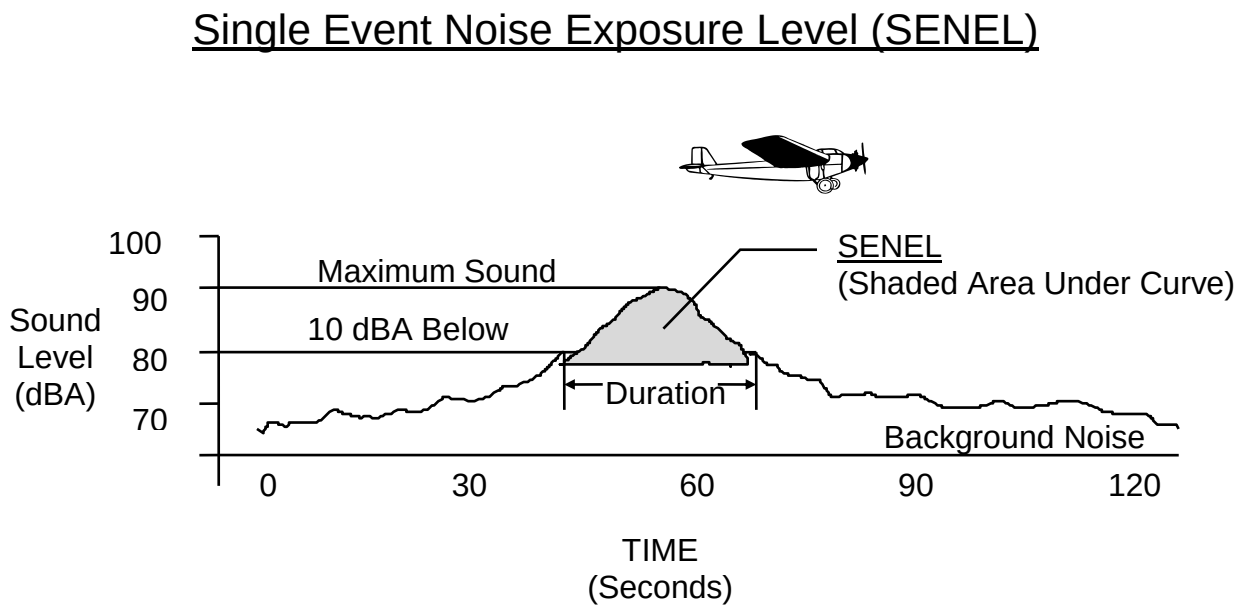
Note: ONLY Remote Monitoring Stations 1 & 2 are used for the Enforcement of the 95.0 dBA Single Event Noise Exposure Level (SENEL) maximum allowable noise level.

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.