ITEM 5

Santa Monica Airport

Noise Management Program

September 2012 Report

City of
Santa Monica℠

Report prepared by:

Stelios Makrides
Airport Operations Administrator
stelios.makrides@smgov.net
(310) 434-2693

Nikolas Gaskins
Airport Operations & Noise Specialist
nikolas.gaskins@smgov.net
(310) 434-2665

Diana Hernandez
Airport Operations & Noise Specialist
diana.hernandez@smgov.net
(310) 458-8759

Santa Monica Airport
3223 Donald Douglas Loop South
Santa Monica, CA 90405
310.458.8692 • www.santamonicaairport.org

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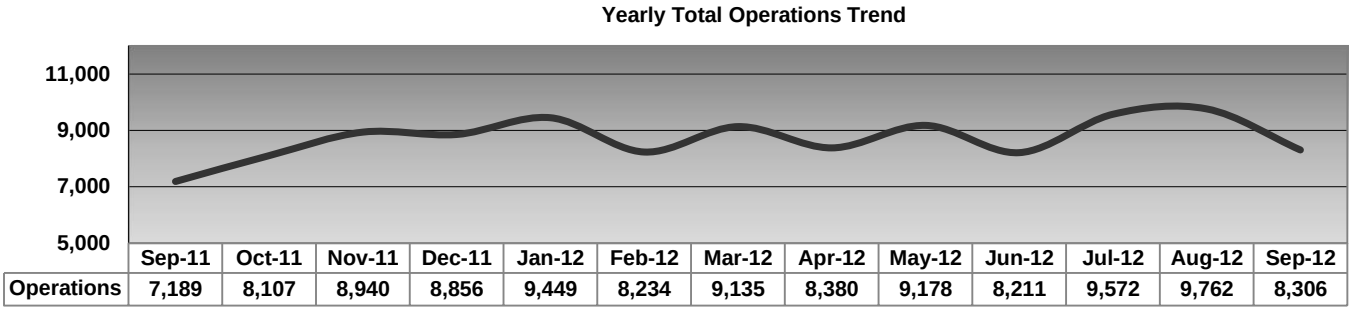
I. Introduction

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 September 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 September 2012 was 8,306; which represents a 16% increase from the 7,189 operations recorded during September 2011. Approximately 21% of the operations were instrument flights (IFR transient), 32% were local flights (VFR local operations), and 47% itinerant flights (VFR transient). The total traffic count is recorded by the FAA control tower. See attachment A for the Airport Traffic Record.

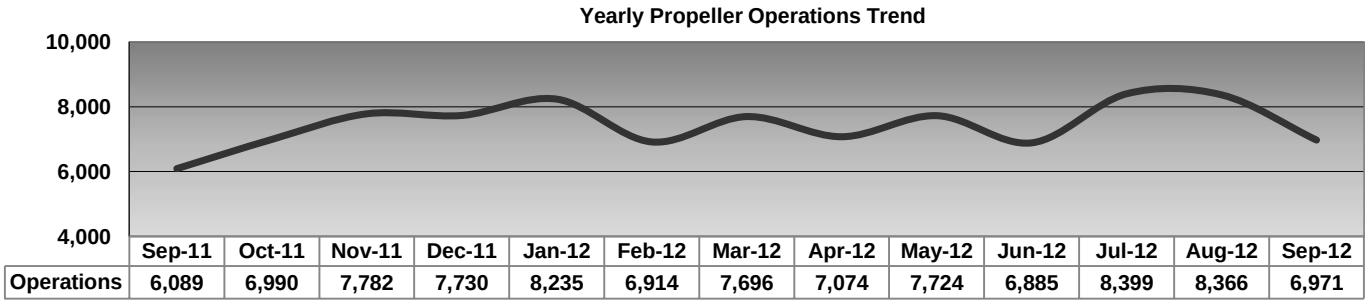


	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Operations	7,189	8,107	8,940	8,856	9,449	8,234	9,135	8,380	9,178	8,211	9,572	9,762	8,306

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

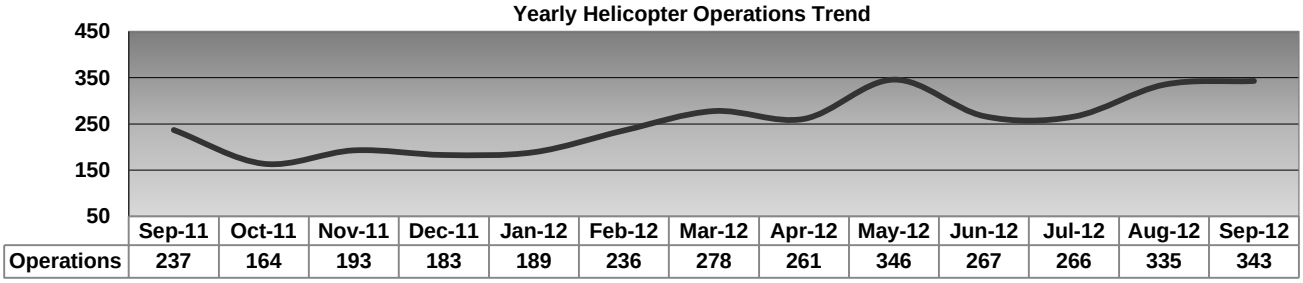
There were approximately 6,971 propeller aircraft operations, comprising approximately 84% of the total operations. Propeller aircraft operations for September 2012 increased 14% from the 6,089 propeller aircraft operations recorded during September 2011.



	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Operations	6,089	6,990	7,782	7,730	8,235	6,914	7,696	7,074	7,724	6,885	8,399	8,366	6,971

Helicopter Operations

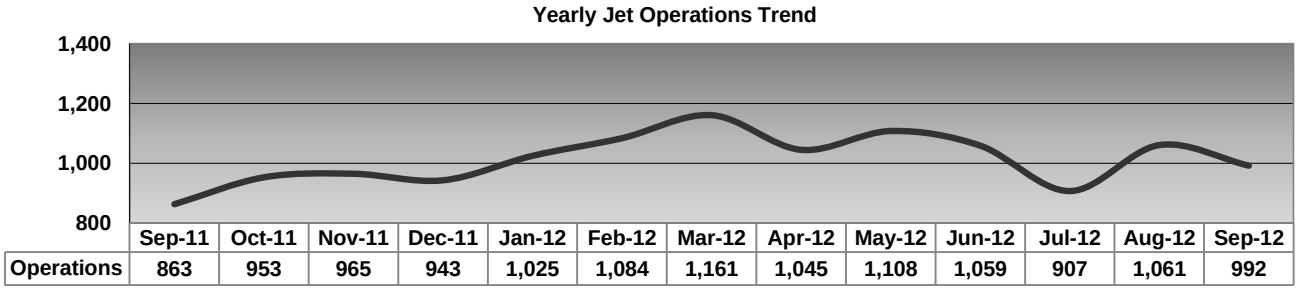
Of the monthly aircraft operations for September 2012, there were approximately 343 helicopter operations, comprising approximately 4% of the total operations. Helicopter operations for September 2012 increased 45% from the 237 recorded in September 2011.



	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Operations	237	164	193	183	189	236	278	261	346	267	266	335	343

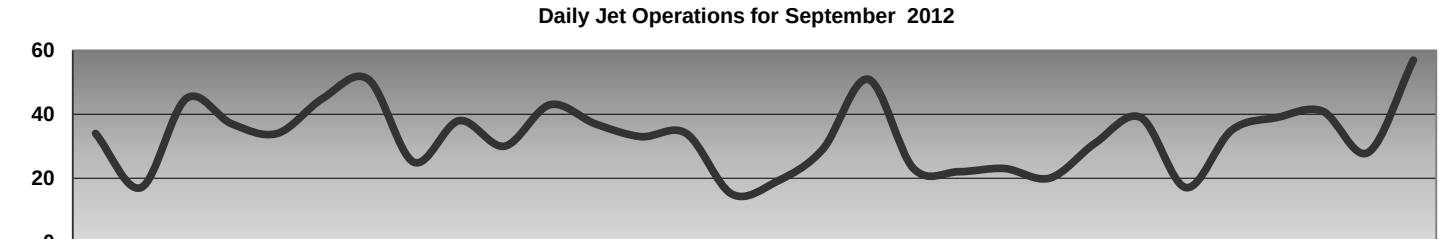
Jet Aircraft Operations

Of the monthly aircraft operations for September 2012, there were approximately 992 jet aircraft operations, comprising approximately 12**%** of the total operations. Jet aircraft operations for September 2012 increased 15% from the 863 jet aircraft operations recorded during September 2011.



	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Operations	863	953	965	943	1,025	1,084	1,161	1,045	1,108	1,059	907	1,061	992

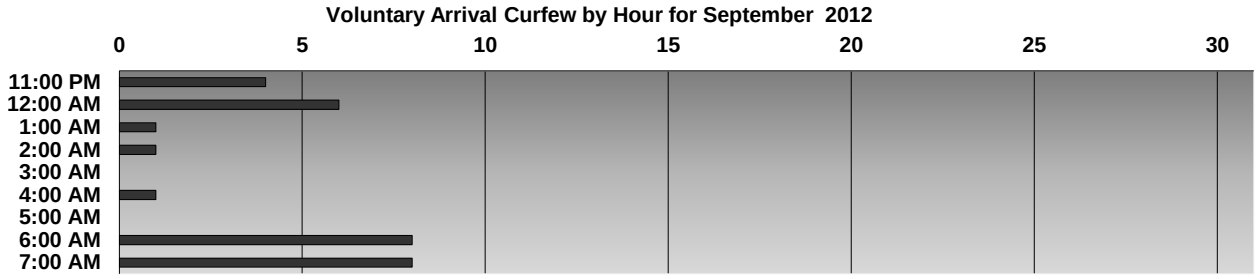
Jet operations vary significantly from day to day and often change with local civic & entertainment events and varying weather conditions. There are however, certain patterns which develop over time providing staff a better understanding of what to anticipate on a daily & weekly basis. Closely examining 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 September 2012 averaged 33 per day. The line graph below represents the daily operations for jet driven aircraft for the month of September 2012.



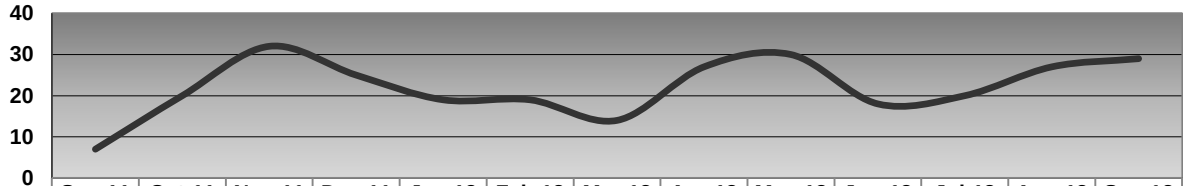
	9/1	9/2	9/3	9/4	9/5	9/6	9/7	9/8	9/9	9/10	9/11	9/12	9/13	9/14	9/15	9/16	9/17	9/18	9/19	9/20	9/21	9/22	9/23	9/24	9/25	9/26	9/27	9/28	9/29	9/30
Series1	34	17	45	37	34	45	51	25	38	30	43	37	33	34	15	19	29	51	23	22	23	20	31	39	17	35	39	41	28	57

III. Voluntary Arrival Curfew

During the month of September 2012, Airport Staff logged a total of 29 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 September 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	8	0	1	0	1	1	6	4



	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Operations	7	20	32	25	19	19	14	27	30	18	20	27	29

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 September 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

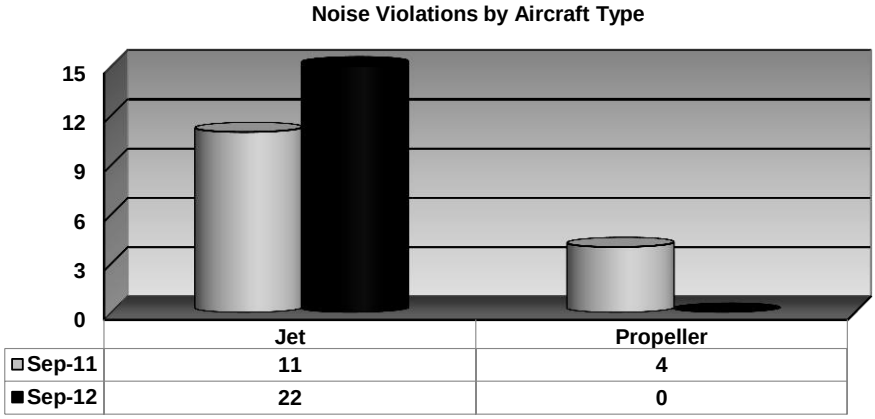
The night departure curfew prohibits takeoffs or engine startups between 11pm and 7am Monday through Friday, or until 8am on weekends and holidays. Exceptions are allowed for bona fide medical or public safety emergencies. During the month of September 2012 there were no authorized curfew departures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

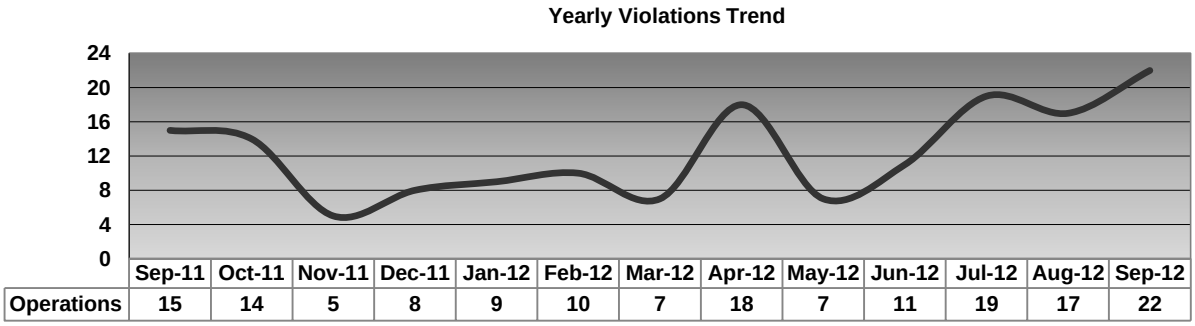
VII. Noise Violations

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 September 2012, there were 22 noise violations, an increase of 46% from the 15 noise violations recorded during September 2011. A summary of noise violations for September 2012 is listed on attachment D.

Of the 8,306 aircraft operations recorded during the month of September 2012, 99.7% 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.

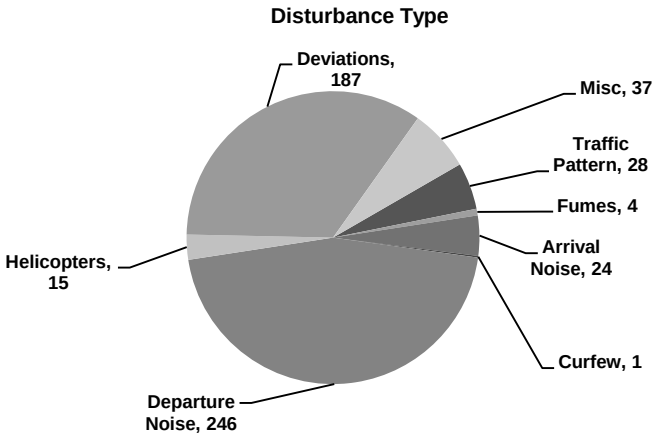


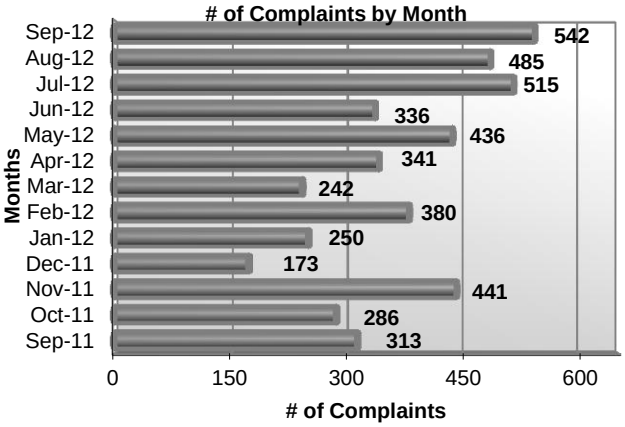


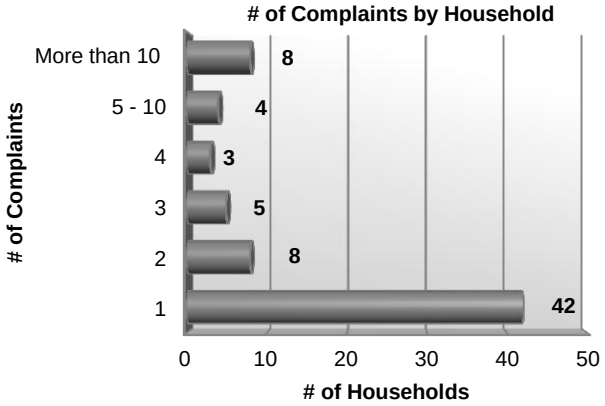
Aircraft & SENEL	95.1 to 95.9	96.0 to 96.9	97.0 to 97.9	98.0 to 98.9	99.0 to 99.9	100.0 to 104.9	105.0+	Total	%
Jet	8	4	7	1	1	1	0	**22**	**100%**
Propeller	0	0	0	0	0	0	0	**0**	**0%**
Helicopter	0	0	0	0	0	0	0	**0**	**0%**
Total:	**8**	**4**	**7**	**1**	**1**	**1**	**0**	**22**	
%	**36%**	**18%**	**32%**	**5%**	**5%**	**5%**	**0%**		**100%**

VIII. AIRCRAFT NOISE COMPLAINTS

During September 2012, Airport Noise Management staff received a total of 542 inquiries from 70 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 September 2012.







ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	9/2012	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	22	28	0	50	190	0	190	240	240
2	0	14	137	0	151	51	0	51	202	442
3	0	30	172	0	202	89	0	89	291	733
4	0	22	160	2	184	115	0	115	299	1032
5	0	12	166	0	178	131	0	131	309	1341
6	0	15	207	0	222	82	0	82	304	1645
7	0	23	201	0	224	114	0	114	338	1983
8	0	12	221	0	233	58	0	58	291	2274
9	0	18	196	0	214	24	0	24	238	2512
10	0	9	139	0	148	97	0	97	245	2757
11	0	21	118	0	139	14	0	14	153	2910
12	0	26	100	0	126	62	0	62	188	3098
13	0	20	134	0	154	106	0	106	260	3358
14	0	23	181	0	204	119	0	119	323	3681
15	0	3	161	0	164	58	0	58	222	3903
16	0	16	172	0	188	36	0	36	224	4127
17	0	13	125	0	138	77	0	77	215	4342
18	0	20	186	0	206	106	0	106	312	4654
19	0	16	178	0	194	137	0	137	331	4985
20	0	15	161	0	176	125	0	125	301	5286
21	0	13	175	0	188	59	0	59	247	5533
22	0	17	200	0	217	67	0	67	284	5817
23	0	27	181	0	208	61	0	61	269	6086
24	0	29	148	0	177	54	0	54	231	6317
25	0	9	175	0	184	139	0	139	323	6640
26	0	4	179	0	183	88	0	88	271	6911
27	0	23	197	0	220	106	0	106	326	7237
28	0	21	230	0	251	164	0	164	415	7652
29	0	14	236	0	250	69	0	69	319	7971
30	0	21	257	0	278	57	0	57	335	8306
31	0	0	0	0	0	0	0	0	0	8306
TOTAL	0				5651	2655	0	2655	8306	

ATTACHMENT A
(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*	9/2012 (1-2) (3-4) MO. YR.	SMO (5-9) LOC ID	ADP CONTROL 10-4

INSTRUMENT OPERATIONS

DAY	AC	AT	GA	MILITARY		TOTAL (10-E) (14-1)
1	0	22	28	0	(16-19)	50
2	0	14	10	0	(20-23)	24
3	0	30	33	0	(24-27)	63
4	0	20	34	0	(28-31)	54
5	0	12	35	0	(32-35)	47
6	0	15	47	0	(36-39)	62
7	0	22	42	0	(40-43)	64
8	0	12	37	0	(44-47)	49
9	0	18	48	0	(48-51)	66
10	0	9	39	0	(52-55)	48
11	0	20	76	0	(56-59)	96
12	0	26	57	0	(60-63)	83
13	0	20	43	0	(64-67)	63
14	0	21	43	0	(68-71)	64
15	0	3	36	0	(72-75)	39
16	0	16	30	0	(76-79)	46
						(14-2)
17	0	13	36	0	(16-19)	49
18	0	20	51	0	(20-23)	71
19	0	15	31	0	(24-27)	46
20	0	15	32	0	(28-31)	47
21	0	13	37	0	(32-35)	50
22	0	17	32	0	(36-39)	49
23	0	27	36	0	(40-43)	63
24	0	29	27	0	(44-47)	56
25	0	9	40	0	(48-51)	49
26	0	4	65	0	(52-55)	69
27	0	23	48	0	(56-59)	71
28	0	21	46	0	(60-63)	67
29	0	14	36	0	(64-67)	50
30	0	21	50	0	(68-71)	71
31	0	0	0	0	(72-75)	0
TOTAL	0	521	1205	0		1726
	(17-21)	(22-26)	(27-31)	(32-36)		
FACILITY USE						
FACILITY USE						

REMARKS

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
9/1/12	7:34	N3181	BE20	21	88.1	2	SHAW CONSULTING GROUP C/O WESTERN	TP
9/1/12	7:57	N5694F	ALON	21	DNR	2	MUSEUM OF FLYING	SE
9/2/12	23:08	N499SF	SR22	21	DNR	2	REGAL AIR LLC	SE
9/3/12	0:06	N23816	C182	21	DNR	2	HUNDAL MEDICAL CORP	SE
9/4/12	6:50	N335AP	BE9L	21	80.6	2	PARAMOUNT CITRUS LLC	TP
9/6/12	2:43	N2HL	G200	21	89.9	2	LEACH CAPITAL LLC	J
9/6/12	6:54	N210HK	C172	21	80.8	2	JENNA MARIE WELLS	SE
9/7/12	0:05	N125ST	CL60	21	86.5	2	STERLING AVIATION LLC	J
9/8/12	0:24	N2HL	G200	21	85.3	2	LEACH CAPITAL LLC	J
9/8/12	4:22	N23816	C182	21	DNR	2	HUNDAL MEDICAL CORP	SE
9/8/12	7:42	N226M	PA24	21	82.0	2	LARRY GENE ADAMS	SE
9/8/12	7:43	N4384W	BE36	21	76.1	2	ROBERT PELSTRING	SE
9/9/12	7:35	N25FS	C550	21	84.9	2	KFE INC	J
9/9/12	23:43	N757XJ	C750	21	84.5	2	XOJET INC	J
9/10/12	6:43	N2722D	C441	3	89.0	1	USA GASOLINE CORPORATION	TP
9/10/12	23:59	N2HL	G200	21	85.7	2	LEACH CAPITAL LLC	J
9/14/12	0:14	724SP	C172	21	DNR	2	JEFFREY J MUHLE	SE
9/14/12	0:20	N417C	C25C	21	81.4	2	GLASS AVIATION	J
9/15/12	23:27	N73WC	B350	21	88.8	2	WEST COAST CHARTERS	TP
9/16/12	7:38	N253WC	AS355	21	84.3	2	PURWIN COMPANY LLC	H
9/18/12	0:58	N23816	C172	21	DNR	2	HUNDAL MEDICAL CORP	SE
9/20/12	6:05	N499TM	BE40	21	84.2	2	TRAVEL MANAGEMENT COMPANY LTD	J
9/21/12	6:06	N3725L	PRM1	21	79.0	2	KMR AVIATION	J
9/25/12	6:59	N843BC	B200	21	87.9	2	CBCC KING AIR INC	TP
9/29/12	7:35	N561VP	C560	21	81.6	2	DESERT JET	J
9/29/12	6:56	N219ML	BE55	21	80.4	2	TIM HUTCHINSON	ME
9/29/12	7:58	N172BR	C172	21	DNR	2	READ AVIATION INC	SE
9/30/12	1:08	N60WC	B300	21	87.0	2	WEST COAST CHARTERS	ME
9/30/12	6:47	N219ML	BE55	21	79.7	2	TIM HUTCHINSON	ME

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

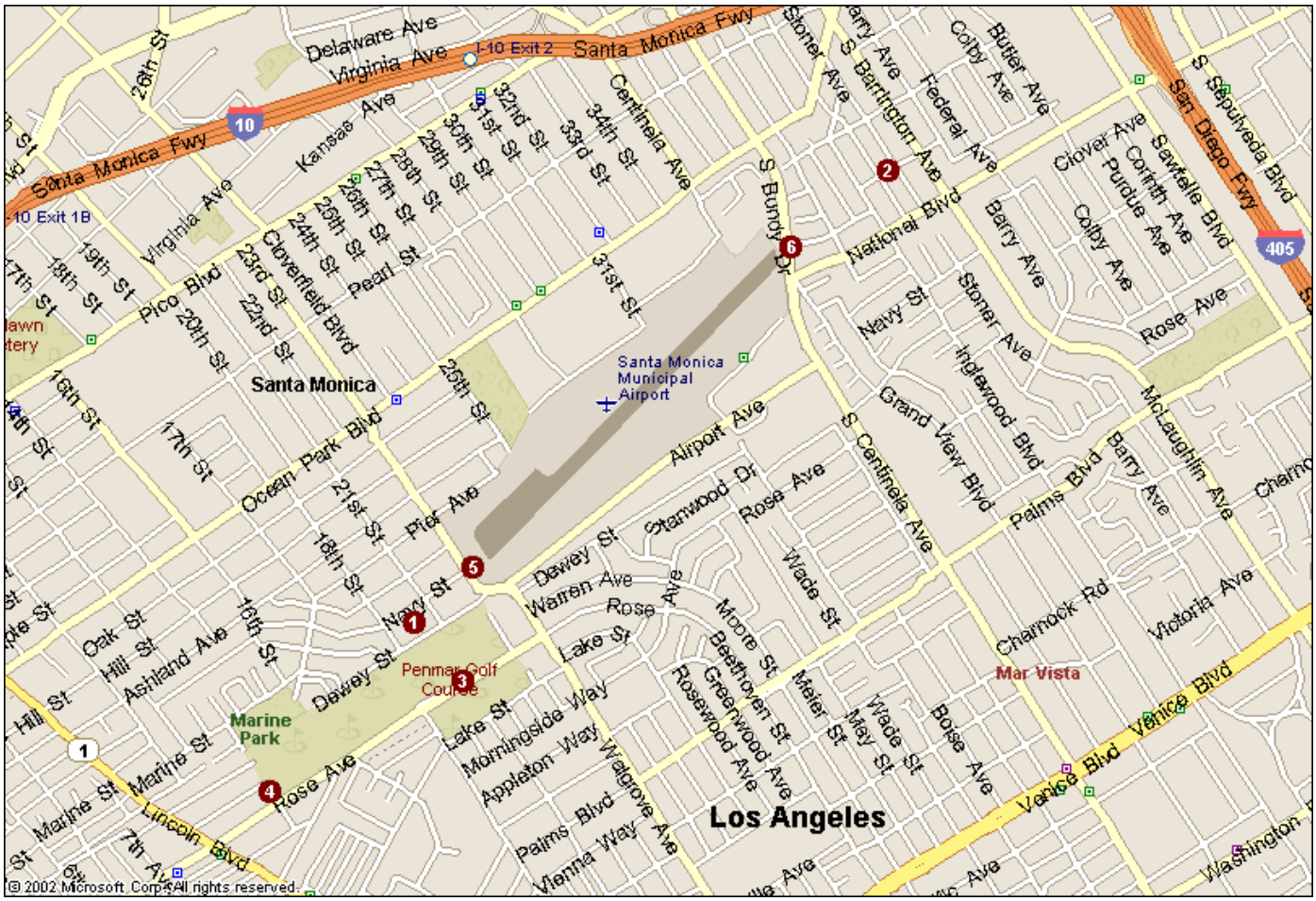
(J) = Jet, (ME) = Multi-Engine, (SE) = Single-Engine, (TP) = Turbo-Prop, (H) = Helicopter

DATE	TIME	NUMBER	TYPE	RWY	SEL	RMS	COMPANY NAME	ACTION	ENGINE
9/2/12	9:47	N500N	F2TH	21	95.3	1	NASCAR AVIATION	WARNING	J
9/4/12	11:29	N885LS	HAWKER 800XP	21	95.6	1	LAS VEGAS SANDS CORP	$2,000	J
9/6/12	9:05	N305CL	CL30	21	97.3	1	WCA HOLDINGS II LLC/BOMBARDIER	WARNING	J
9/7/12	20:02	CGXNW	G150	21	97.0	1	SKYSERVICE BUSINESS AVIATION IN	WARNING	J
9/11/12	17:25	N111CQ	GLF4	21	97.6	1	GAMA AVIATION INC	WARNING	J
9/14/12	14:25	N816JM	HAWKER 700A	21	101.2	1	JMN LLC/JET AIRCRAFT MANAGEME	WARNING	J
9/15/12	8:58	N577DA	CL60	21	97.2	1	DELTA PRIVATE JETS	WARNING	J
9/18/12	16:55	N318GA	FA50	21	96.5	1	SHORT HILLS AVIATION	$2,000	J
9/19/12	11:09	N19H	GLF3	21	98.1	1	HUBBARD BROADCASTING INC/HBI L	BANNED/ $2,000	J
9/20/12	15:28	N525H	C25A	21	99.4	1	COSHOCTON AIR LTD	WARNING	J
9/21/12	15:05	N723MC	CL30	21	96.6	1	FAIR WIND AIR CHARTER	WARNING	J
9/21/12	17:24	N998BM	FA20	21	97.5	1	FLIGHT SOLUTIONS INC	WARNING	J
9/23/12	11:10	N1DE	LJ31	21	96.0	1	CHAMPION AIR LLC	WARNING	J
9/23/12	13:03	N300QS	E55P	21	95.3	1	NET JETS AVIATION INC	WARNING	J
9/24/12	9:59	N848N	HAWKER 800XP	21	97.3	1	EXELIS INC	WARNING	J
9/24/12	15:23	N989ST	HAWKER 800XP	21	95.9	1	CUSICK AVIATION LLC	WARNING	J
9/24/12	15:25	N257H	GLF4	21	96.8	1	HJ HEINZ COMPANY	WARNING	J
9/26/12	17:11	N257H	GLF4	21	95.9	1	HJ HEINZ COMPANY	$2,000	J
9/27/12	8:53	N23A	LJ35	21	97.4	1	SUNQUEST EXEC. AIR CHARTER INC	WARNING	J
9/30/12	13:32	N492QS	GLF4	21	95.6	1	NET JETS AVIATION INC	WARNING	J
9/30/12	18:51	N525AG	G200	21	95.8	1	CLAY LACY AVIATION	WARNING	J
9/30/12	20:04	N800TD	FA50	21	95.1	1	EMPLOYER BENEFITS GROUP LLC	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



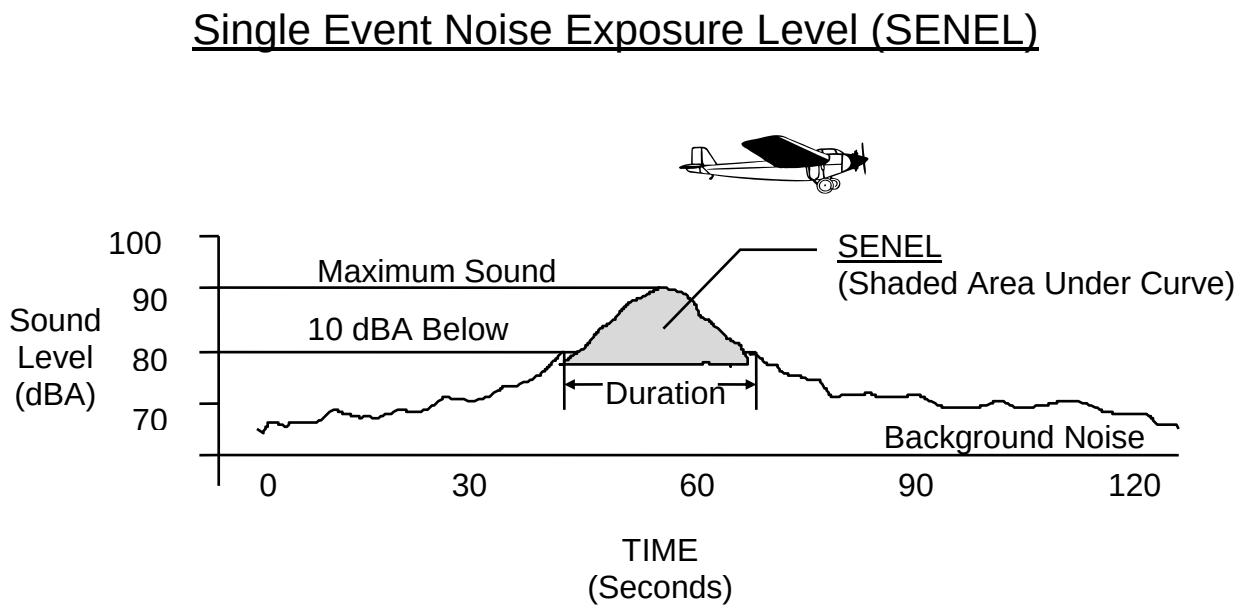
Note: ONLY Remote Monitoring Stations 1 & 2 are used for the Enforcement of the 95.0 dBA Single Event Noise Exposure Level (SENEL) maximum allowable noise level.

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.