

Santa Monica Airport Monthly Operations Report

May 2022

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Single Event Noise Exposure Level (SENEL)

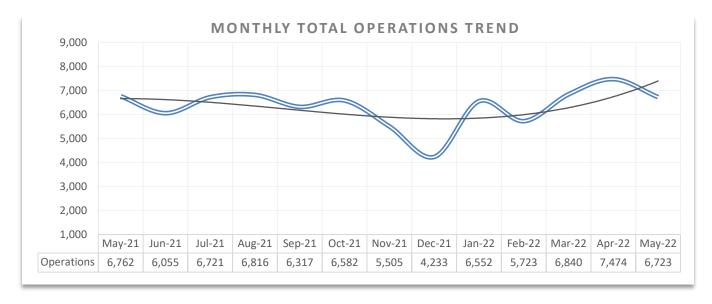
I. Introduction

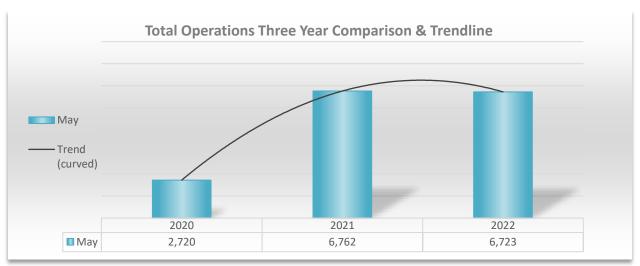
This report has been prepared to inform the Airport Commission and the general public regarding the Santa Monica Airport's Noise Management Program. The report provides details on aircraft operations (aircraft operation is defined as one takeoff or one landing), noise violations, deviations to the fly neighborly program, and curfew violations for the month of May 2022.

II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of May 2022 was 6,723 which represents a 1% decrease from the 6,762 operations recorded during May 2021. Approximately 16% of the operations were instrument flights (IFR transient), 42% were local flights (VFR local operations), and 42% were itinerant flights (VFR transient). The official total traffic count is recorded by the Federal Aviation Administration (FAA) control tower. The FAA's traffic record is included under Attachment A.

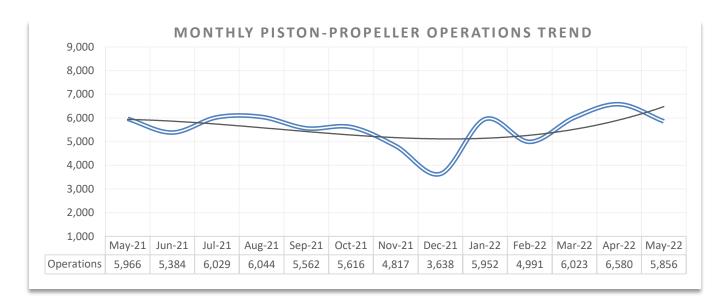
Breakdowns of the total operations grouped by aircraft type, along with a graph for each type indicating each monthly aircraft operations trend during the preceding 12-month period is as follows.

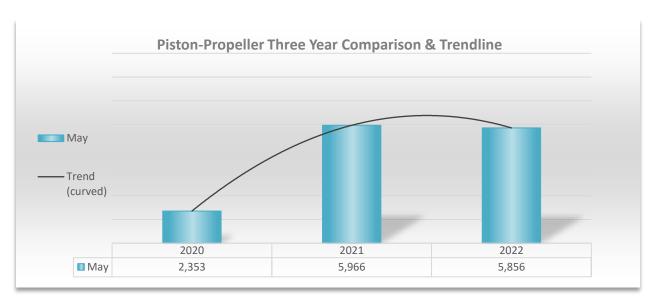




Piston-propeller Aircraft Operations

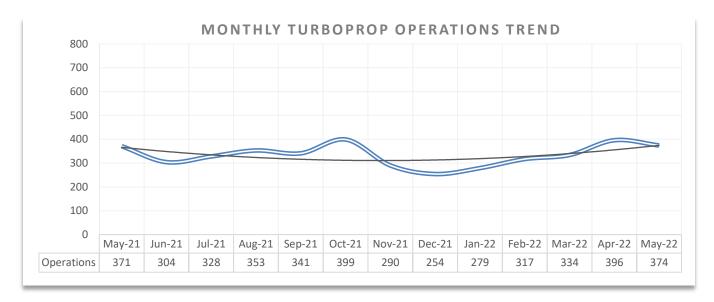
There were approximately 5,856 piston-propeller aircraft operations recorded, comprising approximately 87% of the total operations. Piston-propeller aircraft operations for May 2022 decreased 2% from the 5,966 piston-propeller aircraft operations recorded during May 2021.

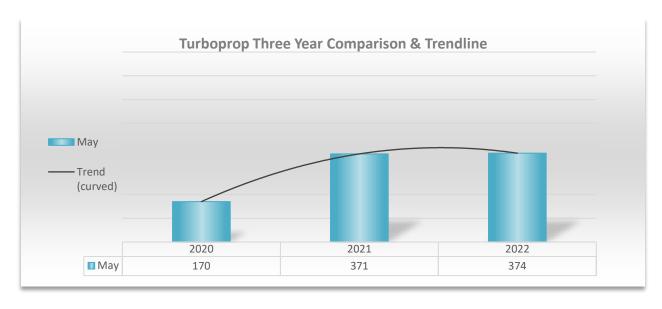




Turboprop Operations

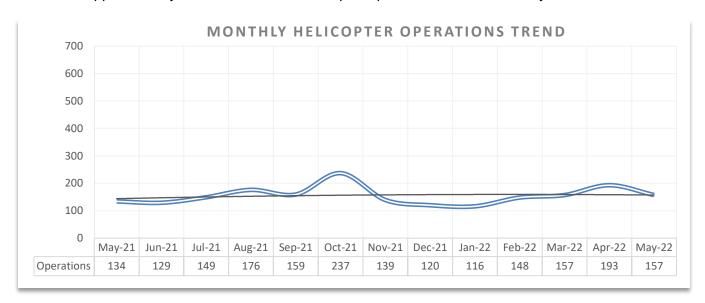
The difference between a turboprop and piston-propeller aircraft is simply their engine type. Turboprops have one or more turbine engines, while piston-propeller aircraft have one or more reciprocating piston engines. Of the total monthly aircraft operations for May 2022, approximately 374 were by turboprop aircraft, comprising approximately 6% of the total operations. Turboprop aircraft operations increased approximately 1% from the 371 operations recorded during May 2021.

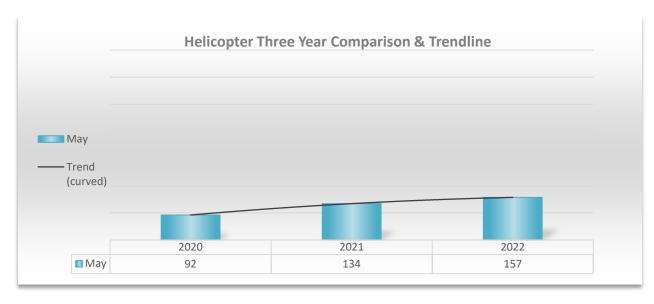




Helicopter Operations

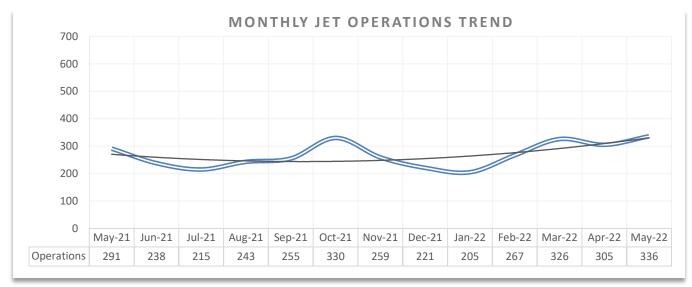
Of the monthly aircraft operations for May 2022, approximately 157 operations are attributed to helicopters, comprising approximately 2% of the total operations. Helicopter operations during May 2022 increased approximately 17% from the 134 helicopter operations recorded in May 2021.



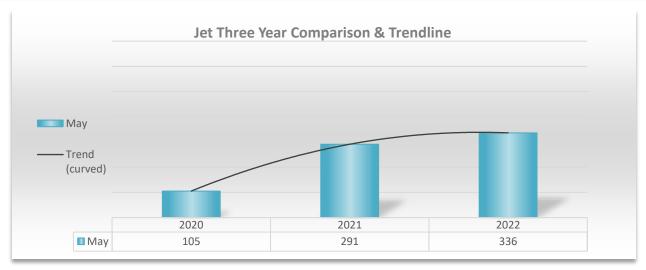


Jet Aircraft Operations

In May of 2022, there were approximately 336 jet operations recorded, encompassing approximately 5% of the total operations. Jet operations for May increased 15% from the 291 jet aircraft operations recorded during May 2021. Daily jet operations vary significantly day over day. During the month of May 2022, jet aircraft averaged 11 operations per day. The bar graph below represents the monthly and daily operations for jet engine driven aircraft for the month of May 2022.

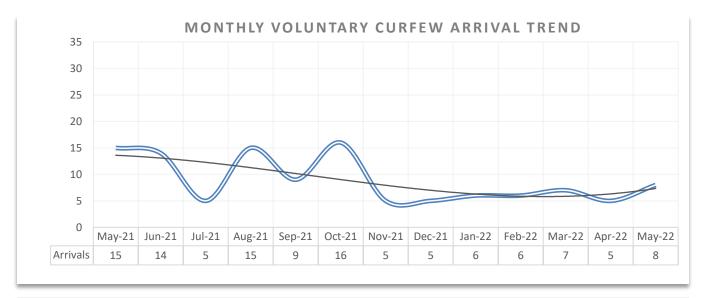


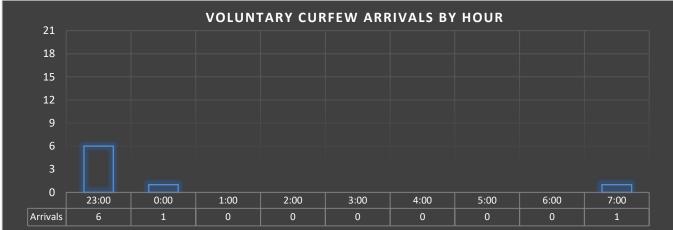


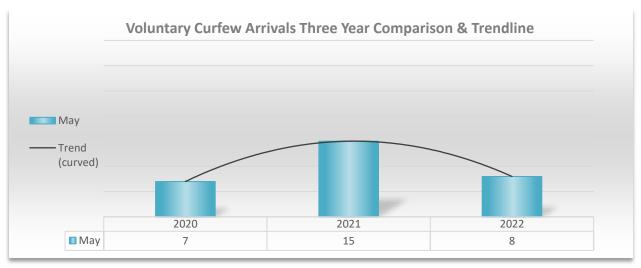


III. Voluntary Arrival Curfew

During the month of May 2022, Airport Staff logged a total of 8 aircraft arrivals during the Voluntary Arrival Curfew (VAC), which mirrors the mandatory departure curfew hours of 11:00 p.m. to 7:00 a.m. on weekdays, and 11:00 p.m. to 8:00 a.m. on weekends. The graph below depicts the number of arrivals for each VAC hour during the month of May 2022. For a listing of aircraft arrivals during the night hours, see Attachment B.







IV. Authorized Departures & Curfew Violations

The night departure curfew prohibits takeoffs or engine start-ups between 11 p.m. and 7 a.m. Monday through Friday, or until 8 a.m. on weekends. Exceptions are allowed for bona fide medical emergencies or public safety operations. During the month of May 2022, there was one authorized departure during curfew hours, and no curfew violations. For more details refer to Attachment C.

V. Deviations from Recommended VFR Noise Management Procedures

Santa Monica Airport requests that arriving and departing VFR aircraft follow certain flight patterns for Noise Management. Aircraft that are observed to be operating outside of the requested flight patterns are contacted and advised of the proper Noise Management procedures. During the month of May 2022 airport staff spent several hours analyzing aircraft adherence to the requested noise management procedures. Staff contacted those aircraft operators observed to be deviating from established VFR procedures, requesting compliance with the Airport's Recommended Noise Management Procedures. Operators who deviated due to weather, traffic or given a mandatory instruction from Air Traffic Control are not contacted by staff.

VI. Noise Management Briefings

Many 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.

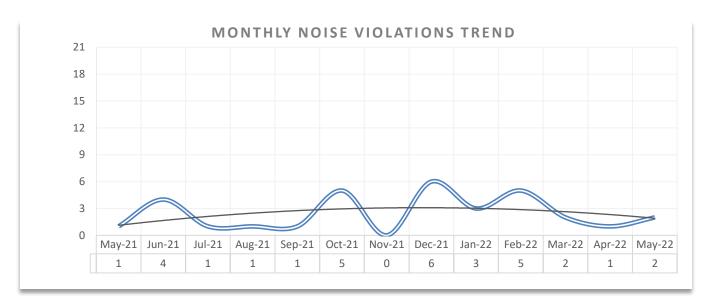
VII. Noise Violations

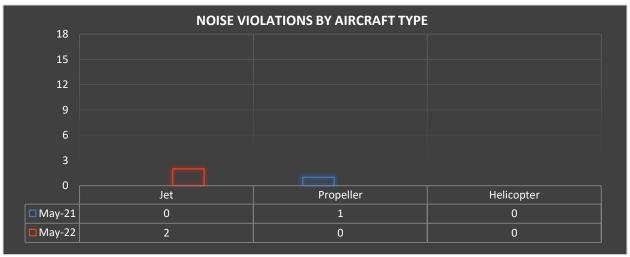
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing on May 1, 1985." The only Remote Monitoring Stations (RMS) that can be used for the enforcement of the 95.0 dBA SENEL are RMS 1 and RMS 2. These monitors are located approximately 2,200 feet from each end of the runway. See Attachment E for the location of RMS 1 & RMS 2 and Attachment F for the definition of SENEL.

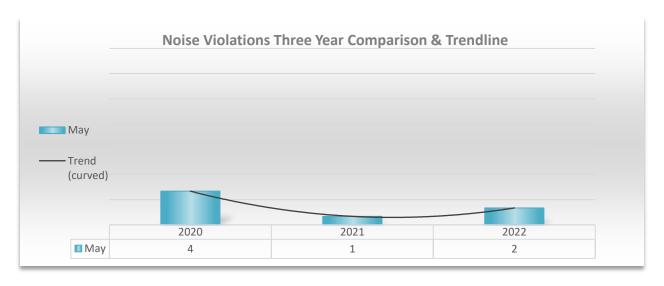
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of May 2022, there were 2 noise violations recorded which represents an increase of 100% from only 1 noise violation recorded during May 2021. A summary of noise violations for May 2022 is listed on attachment D. Of the 6,723 aircraft operations recorded during the month of May 2022, 99.9% of the operations were in compliance with Santa Monica Airport's noise ordinance. The noise violations listed in the table below were registered at RMS sites 1 or 2 and do not include noise exceedances from due to extraneous factors (loss of power, the need to avoid other aircraft, or unusual weather conditions); nor do they include exempt or medical emergency aircraft operations.

Violations Breakdown by Decibel Level

	Violationio Broakae Wit by Booleon Eevel												
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	0	1	0	0	0	0	2	100%				
Propeller	0	0	0	0	0	0	0	0	0%				
Helicopter	0	0	0	0	0	0	0	0	0%				
Total:	1	0	1	0	0	0	0	2					
%	67%	0%	33%	0%	0%	0%	0%		100%				

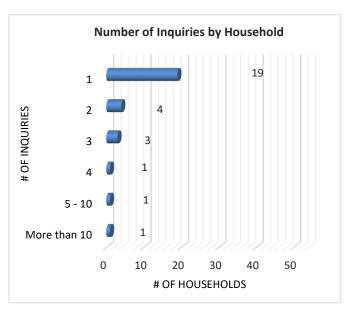


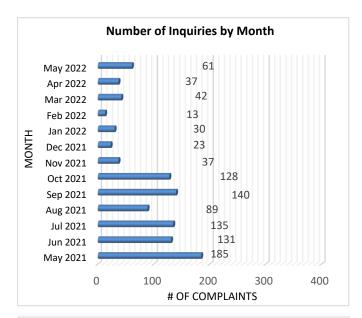


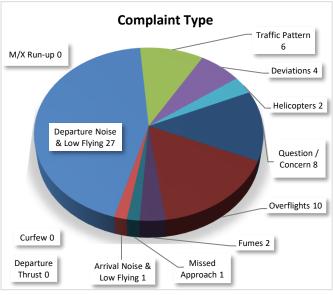


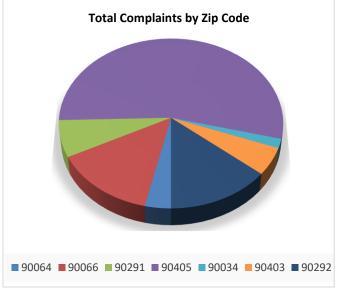
VIII. Aircraft Related Inquiries

During the month of May of 2022, 29 individual households logged a total of 61 reports pertaining to aircraft operations. 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 inquiries noise management staff investigated during the month of May 2022.









ATTACHMENT A

AIRPORT TRAFFIC RECORD				FACILITY N	IAME	LOCATION		05 / 22	SMO				
Mail ORIGI	NAL of this fo	rm to Washir	gton Office,					(1-2) (3-4)	(5-9)				
APO-110,	thru Regional	Air Traffic D	ivision.	Santa Mon	ica ATCT	Santa Mon	MO. YR.	LOC ID					
(10-1)	FACILITY'	ГҮРЕ ("Х" (ONE)				IF DAILY HOU	IF DAILY HOURS					
(11)								TYPE	OF OPERATION				
	APPROACH	$\setminus \Box$	B. RADAR					CHANGEL	ED HAVE CHANGED,				
	CONTROL	$\rightarrow \Box$	C. LIMITED	RADAR	x	E. VFR TOW	/ER	(12)	ENTER NEW				
	TOWERS	/ 🗆	D. NON-RAI	OAR		G. CONTRA	CT TOWER		HOURS	HRS. 10 THS			
					(Co	ntinue on rev	erse)	YES	→				
	└ → (a	lso submit FA	AA Form 723	80-26)						(77-78) (79)			
AIRPORT OPERATIONS COUNT													
		ITIN	ERANT				LOCAL						
									TOTAL	SPECIAL			
DAY	AC	AT	GA	MIL	TO TAL	CIVIL	MILITARY	TO TAL	OPERATIONS	USE			
(15-16)	(17-21)	(22-26)	(27-31)	(32-36)	ITINERANT	(37-41)	(42-46)	LOCAL		(47-51)			
1	0	12	123	0	135	48	0	48	183	183			
2	0	13	112	0	125	86	0	86	211	394			
3	0	15	94	0	109	236	0	236	345	739			
4	0	12	127	0	139	120	0	120	259	998			
5	0	11	79	0	90	50	0	50	140	1138			
6	0	8	150	0	158	143	0	143	301	1439			
7	0	10	163	0	173	91	0	91	264	1703			
8	0	9	138	0	147	177	0	177	324	2027			
9	0	10	106	0	116	102	0	102	218	2245			
10	0	11	123	0	134	84	0	84	218	2463			
11	0	8	115	2	125	77	0	77	202	2665			
12	0	4	149	0	153	146	0	146	299	2964			
13	0	11	145	0	156	111	0	111	267	3231			
14	0	9	176	0	185	120	0	120	305	3536			
15	0	5	179	0	184	113	0	113	297	3833			
16	0	15	105	0	120	120	0	120	240	4073			
17	0	14	96	0	110	104	0	104	214	4287			
18	0	13	112	0	125	77	0	77	202	4489			
19	0	7	53	0	60	0	0	0	60	4549			
20	0	18	63	0	81	87	0	87	168	4717			
21	0	8	121	0	129	82	0	82	211	4928			
22	0	8	104	0	112	4	0	4	116	5044			
23	0	9	58	0	67	6	0	6	73	5117			
24	0	8	81	1	90	13	0	13	103	5220			
25	0	15	73	0	88	10	2	12	100	5320			
26	0	11	118	0	129	75	0	75	204	5524			
27	0	12	140	0	152	107	0	107	259	5783			
28	0	9	95	0	104	144	0	144	248	6031			
29	0	5	102	0	107	61	0	61	168	6199			
30	0	9	135	2	146	49	0	49	195	6394			
31	0	12	117	0	129	200	0	200	329	6723			
TOTAL	0	321	3552	5	3878	2843	2	2845	6723				

ATTACHMENT A

	FOR USE BY VFR TOWERS ONLY (ALL Approach Control Terminals						s recording ations	A	/02 (1-2) (3-4)	SMO (5-9)	ADP CONTROL
	MUST use FAA Form 7230-26) INSTRUMENT OPERATIONS				MUS	T COMPLE			MO. YR.	LOC ID	10-4
		INSI RUME	NI OPERAI	IONS		TOTAL	REMARKS				
DAY	AC	AT	GA	MILITARY		(10 - E) (14 - 1)					
1	0	11	32	0	(16-19)	43					
2	0	13	30	0	(20-23)	43					
3	0	16	25	0	(24-27)	41					
4	0	12	28	0	(28-31)	40					
5	0	11	26	0	(32-35)	37					
6	0	8	13	0	(36-39)	21					
7	0	8	22	0	(40-43)	30					
8	0	8	22	0	(44-47)	30					
9	0	8	8	0	(48-51)	16					
10	0	11	16	0	(52-55)	27					
11	0	5	18	0	(56-59)	23					
12	0	5	20	0	(60-63)	25					
13	0	10	19	0	(64-67)	29					
14	0	9	9	0	(68-71)	18					
15	0	4	16	0	(72-75)	20					
16	0	6	16	0	(76-79)	22					
						(14-2)					
17	0	12	30	0	(16-19)	42					
18	0	10	40	0	(20-23)	50					
19	0	7	50	0	(24-27)	57					
20	0	15	58	0	(28-31)	73					
21	0	3	32	0	(32-35)	35					
22	0	7	27	0	(36-39)	34					
23	0	5	33	0	(40-43)	38					
24	0	8	43	0	(44-47)	51					
25	0	14	44	0	(48-51)	58					
26	0	7	13	0	(52-55)	20					
27	0	11	20	0	(56-59)	31					
28	0	7	40	0	(60-63)	47					
29	0	2	18	0	(64-67)	20					
30	0	4	20	0	(68-71)	24					
31	0	11	16	0	(72-75)	27					
TOTAL	0	268	804	0		1072	ļ				
	(17-21)	(22-26)	(27-31)	(32-36)							
FACILITY USE							ĺ				

ATTACHMENT B Registered Noise Levels for Night Arrivals 11 p.m. to 7 a.m. Weekdays 11 p.m. to 8 a.m. Weekends

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ENGINE
5/1/22	23:05	N231AL	M20T	21	DNR	2	WEBER ANGELA AUGUSTA SCOTT	Р
5/4/22	0:16	N796SP	C172	21	DNR	2	OPENSKY AIRWAYS LLC	Р
5/14/22	7:08	N442EG	S22T	21	77.8	2	GROTECH INC.	Р
5/14/22	23:32	N796SP	C172	21	DNR	2	OPENSKY AIRWAYS LLC	Р
5/15/22	23:05	N353MV	C172	21	DNR	2	IGAL ZUBERY	Р
5/17/22	23:20	N5148V	C172	21	DNR	2	AYRES AVIATION LLC	Р
5/26/22	23:43	N185X	C185	21	76.5	2	UNKNOWN	Р
5/29/22	23:26	N385MR	CRUZ	21	DNR	2	SANTA MONICA FLYERS	Р

ATTACHMENT C (Authorized Departures & Curfew Violations)

Authorized Curfew Departures

DATE	TIME	NUMBER	TYPE	OPERATOR	RUNWAY
5/24/22	3:57	N37RX	EC35	LIFE FLIGHT	3

Curfew Violations

NONE

ATTACHMENT D (Aircraft Noise Violations)

AIRCRAFT ENGINE CATEGORY LEGEND

(J) = Jet (P) = Piston-propeller(T) = Turboprop (H) = Helicopter

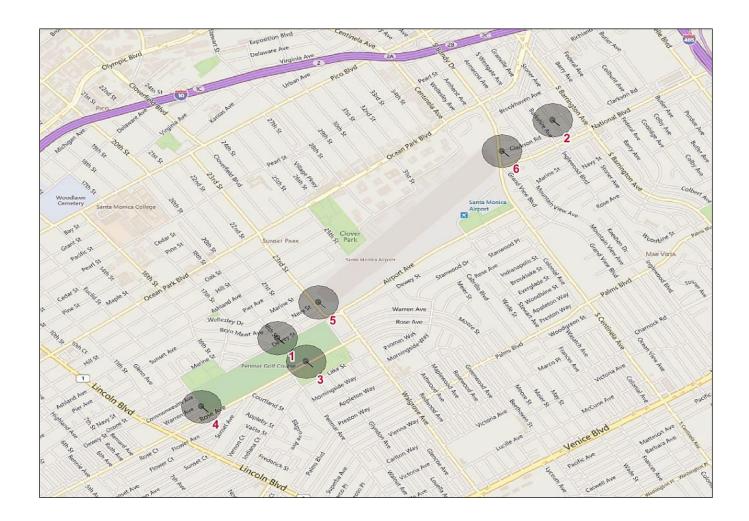
DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
5/18/22	17:14	N424QS	E55P	21	95.9	1	NETJETS AVIATION INC	\$2,000	J
5/25/22	14:57	N777AX	C550	21	97.7	1	OPTIMIZED AVIATION SERVICES LLC	WARNING	J

Unenforceable Noise Events

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	REASON
5/11/22	18:50	N505DE	FA50	21	96.1	1	PAUL T MARINELLI TRUSTEE	SAFETY OF FLIGHT
5/12/22	16:29	UNKNOWN	AH1	21	96.2	2	U.S. MARINES	MILITARY
5/12/22	18:39	UNKNOWN	AH1	21	98.2	1	U.S. MARINES	MILITARY
5/13/22	11:09	N400JA	E55P	21	95.7	1	JETAVIVA LLC	SAFETY OF FLIGHT

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.

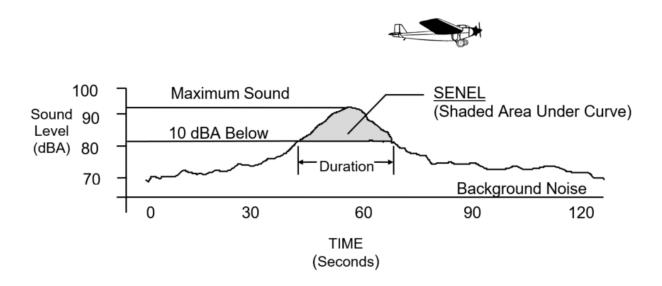
ATTACHMENT F (Single Event Noise Exposure Level)

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 2,200 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.