

Santa Monica Airport Monthly Operations Report

July 2022

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ATTACHMENT F Single Event Noise Exposure Level (SENEL)

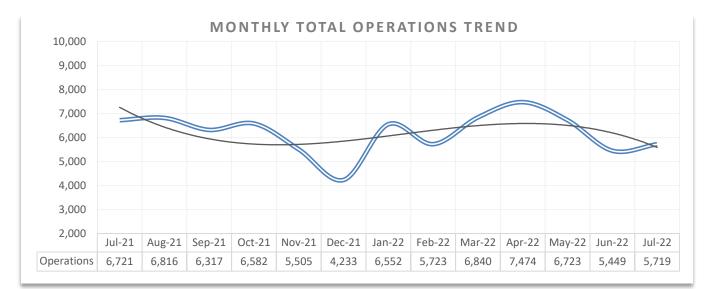
I. Introduction

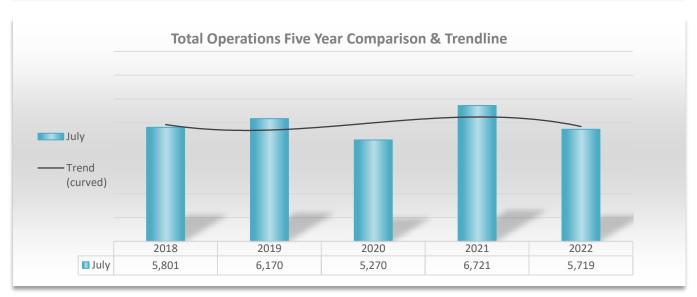
This report has been prepared to inform the Airport Commission and the general public regarding the Santa Monica Airport's Noise Management Program. The report provides details on aircraft operations (aircraft operation is defined as one takeoff or one landing), noise violations, deviations to the fly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

II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of July 2022 was 5,719, which represents a 15% decrease from the 6,721 operations recorded during July 2021. Approximately 14% of the operations were instrument flights (IFR transient), 38% were local flights (VFR local operations), and 48% 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 and a graph for each type indicating each monthly aircraft operations trend during the preceding 12-month period are as follows.

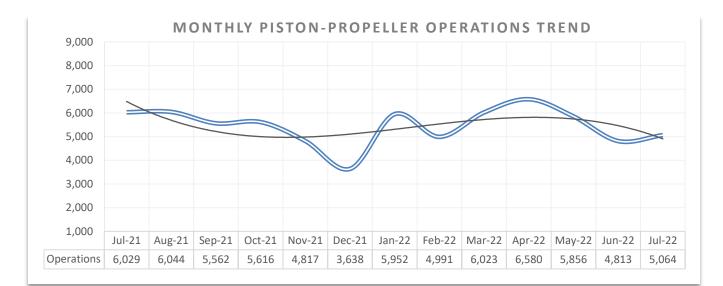


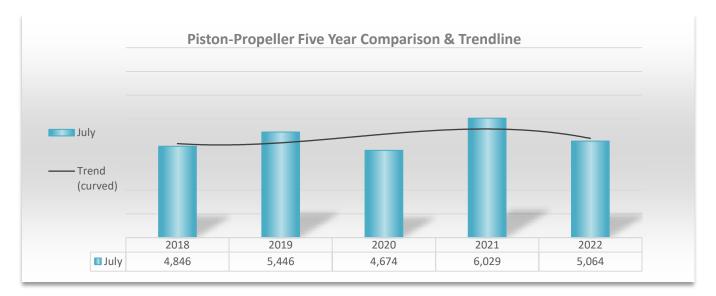


Monthly Noise and Operations Report – July 2022

Piston-propeller Aircraft Operations

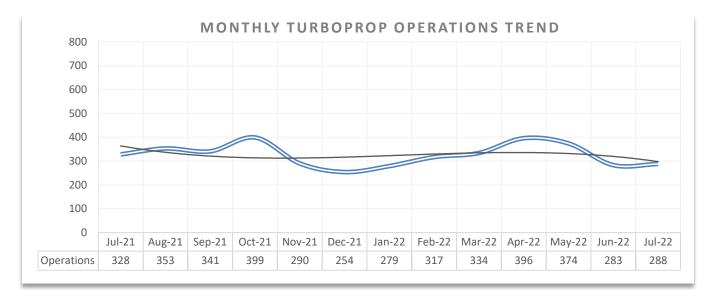
There were approximately 5,064 piston-propeller aircraft operations recorded, comprising approximately 89% of the total operations. Piston-propeller aircraft operations for July 2022 decreased 16% from the 6,029 piston-propeller aircraft operations recorded during July 2021.

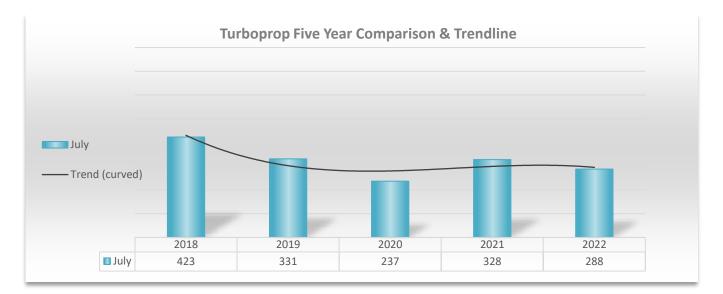




Turboprop Operations

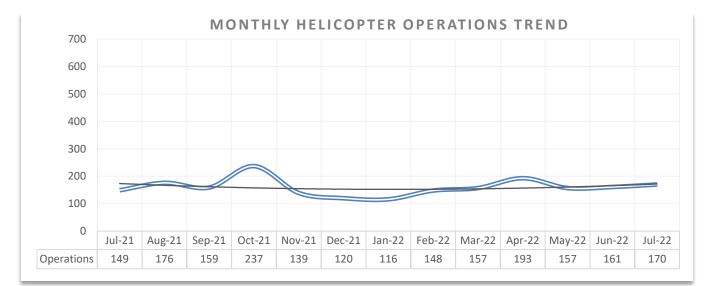
The difference between a turboprop and piston-propeller aircraft is simply their engine type. Turboprops have one or more turbine engines, while piston-propeller aircraft have one or more reciprocating piston engines. Of the total monthly aircraft operations for July 2022, approximately 288 were by turboprop aircraft, comprising approximately 5% of the total operations. Turboprop aircraft operations decreased approximately 12% from the 328 operations recorded during July 2021.

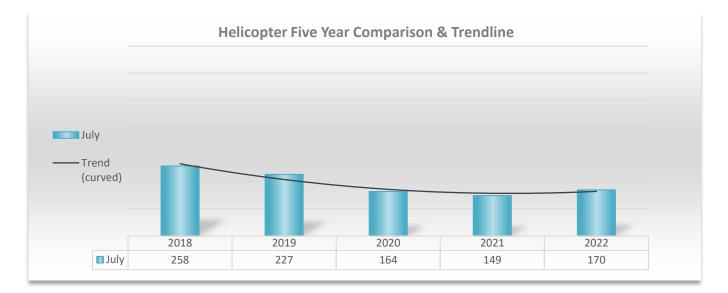




Helicopter Operations

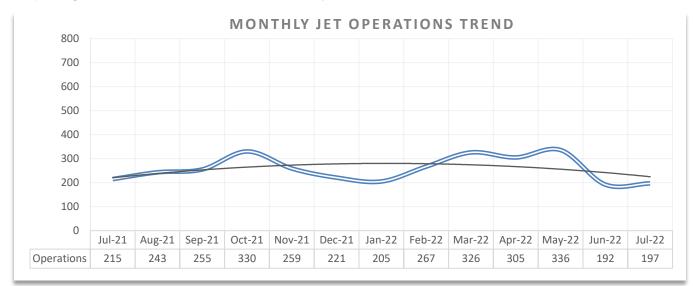
Of the monthly aircraft operations for July 2022, approximately 170 operations are attributed to helicopters, comprising approximately 3% of the total operations. Helicopter operations during July 2022 increased approximately 14% from the 149 helicopter operations recorded in July 2021.



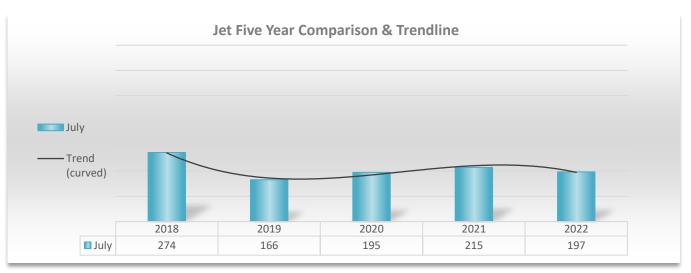


Jet Aircraft Operations

In July of 2022, there were approximately 197 jet operations recorded, encompassing approximately 3% of the total operations. Jet operations for July decreased 8% from the 215 jet aircraft operations recorded during July 2021. Daily jet operations vary significantly day over day. During the month of July 2022, jet aircraft averaged 7 operations per day. The bar graph below represents the monthly and daily operations for jet engine driven aircraft for the month of July 2022.



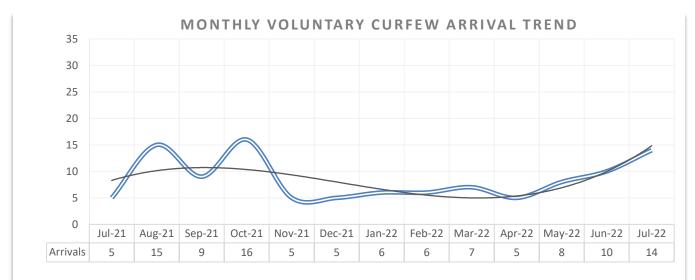


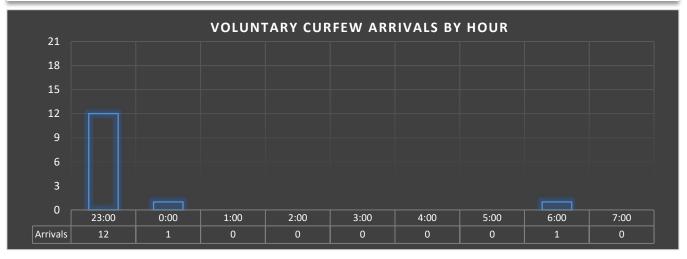


Monthly Noise and Operations Report – July 2022

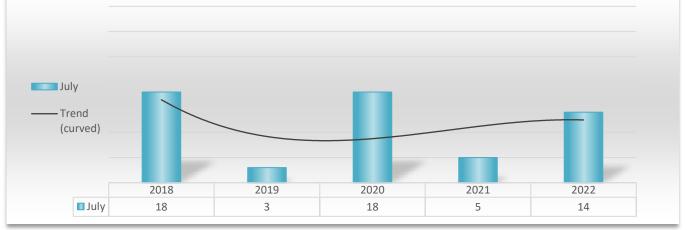
III. Voluntary Arrival Curfew

During the month of July 2022, Airport Staff logged a total of 14 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 July 2022. For a listing of aircraft arrivals during the night hours, see Attachment B.





Voluntary Curfew Arrivals Five Year Comparison & Trendline



Monthly Noise and Operations Report – July 2022

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 July 2022, there were no authorized departures 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 July 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.

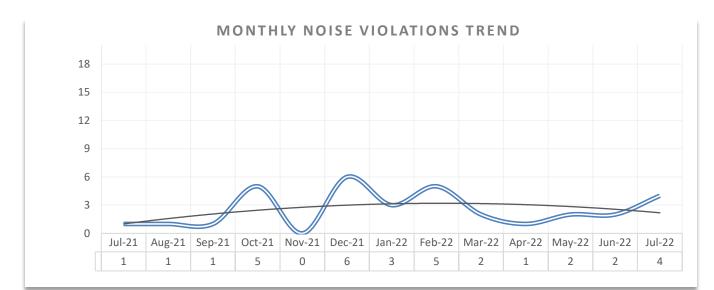
VII. Noise Violations

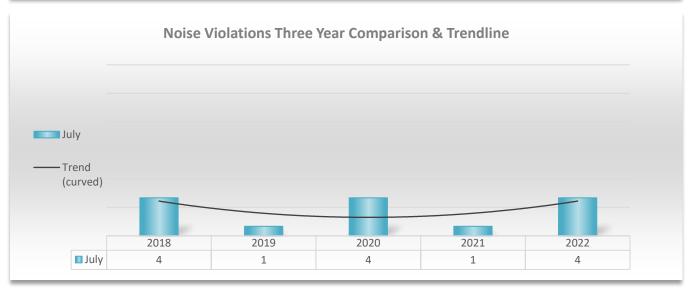
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing on July 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.

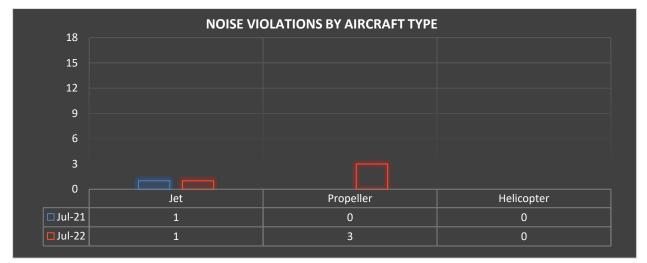
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of July 2022, there were 4 noise violations recorded which represents a 300% increase from only 1 noise violation recorded during July 2021. A summary of noise violations for July 2022 is listed on attachment D. Of the 5,719 aircraft operations recorded during the month of July 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.

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	0	1	0	0	0	0	0	1	25%
Propeller	1	0	0	0	0	2	0	3	75%
Helicopter	0	0	0	0	0	0	0	0	0%
Total:	1	1	0	0	0	2	0	4	
%	25%	25%	0%	0%	0%	50%	0%		100%

Violations Breakdown by Decibel Level

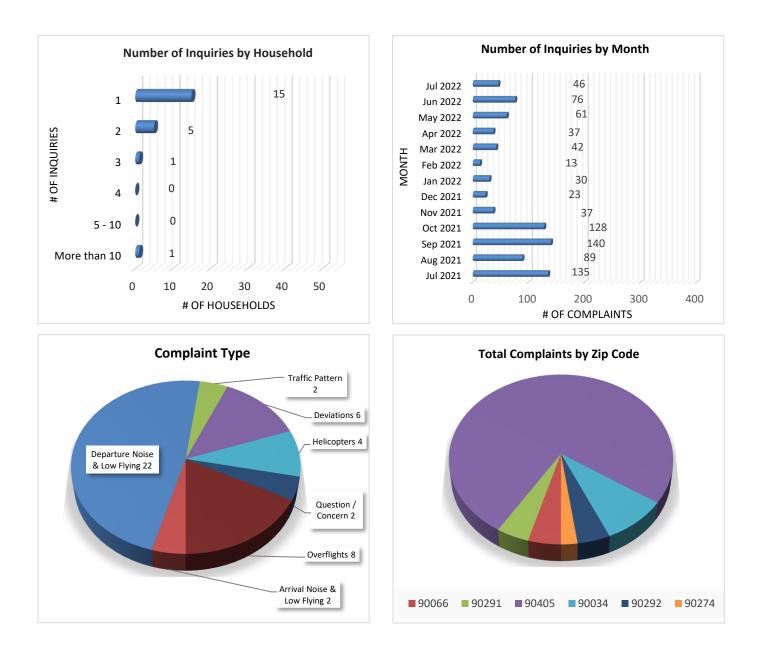






VIII. Aircraft Related Inquiries

During the month of July 2022, 22 individual households logged a total of 46 reports about 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 July 2022.



ATTACHMENT A

AIRPORT TRAFFIC RECORD			FACILIT Y NAME		LOCATION			SMO				
Mail ORIGINAL of this form to Washington Office,								(1-2) (3-4)	(5-9)			
APO-110,	thru Regional	Air Traffic D	ivision.	Santa Mon	ica ATCT	Santa Mon	ica , Californ	ia	MO. YR.	LOC ID		
(10-1)	FACILITY	TYPE("X"	ONE)					FACILIT Y	IF DAILY HOU	JRS		
(11)								T YPE	OF OPERATION	ON		
	APPROACH	\backslash	B. RADAR					CHANGED HAVE CHANGED,				
	CONTROL	$ \geq \square $	C. LIMITED	RADAR	x	E. VFR TOW	/ER	(12) ENTER NEW				
	TOWERS		D. NON-RAI	DAR		G. CONTRA	CT TOWER		HOURS	HRS. 10 THS		
					(Co	ntinue on revo	erse)	YES	\rightarrow			
	└ ▶ (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	US E		
(15-16)	(17-21)	(22-26)	(27-31)	(32-36)	ITINERANT	(37-41)	(42-46)	LOCAL		(47-51)		
1	0	10	143	0	153	149	0	149	302	302		
2	0	3	145	0	148	36	0	36	184	486		
3	0	4	112	0	116	38	0	38	154	640		
4	0	2	65	0	67	30	0	30	97	737		
5	0	5	86	0	91	99	0	99	190	927		
6	0	14	93	0	107	78	0	78	185	1112		
7	0	14	137	0	151	180	0	180	331	1443		
8	0	4	139	0	143	90	0	90	233	1676		
9	0	10	100	0	110	0	0	0	110	1786		
10	0	6	136	0	142	50	0	50	192	1978		
11	0	3	59	0	62	2	0	2	64	2042		
12	0	5	107	0	112	46	0	46	158	2200		
13	0	12	97	0	109	18	0	18	127	2327		
14	0	3	97	0	100	79	0	79	179	2506		
15	0	10	82	0	92	0	0	0	92	2598		
16	0	7	64	0	71	10	0	10	81	2679		
17	0	9	96	0	105	31	0	31	136	2815		
18	0	6	97	0	103	132	0	132	235	3050		
19	0	13	103	0	116	76	0	76	192	3242		
20	0	27	111	0	138	112	0	112	250	3492		
21	0	18	108	0	126	82	0	82	208	3700		
22	0	9	139	0	148	93	2	95	243	3943		
23	0	6	101	0	107	55	0	55	162	4105		
24	0	16	76	0	92	45	7	52	144	4249		
25	0	7	70	0	77	22	0	22	99	4348		
26	0	10	87	0	97	23	0	23	120	4468		
27	0	6	100	0	106	15	0	15	121	4589		
28	0	10	129	2	141	148	0	148	289	4878		
29	0	13	123	0	136	213	0	213	349	5227		
30	0	11	132	0	143	120	0	120	263	5490		
31	0	4	129	0	133	96	0	96	229	5719		
TOTAL	0	277	3263	2	3542	2168	9	2177	5719			

FAA Form 7230-1 (8-78) SUPERSEDES PREVIOUS EDITION AND FAA FORM 7230-11

RIS: AT 7230-99

ATTACHMENT A

						/FR Tower iment Oper	s recording	/02	SMO	
	(ALL Approach Control Terminals						ations			
							TTE	(1-2) (3-4) MO. YR.	(5-9) LOC ID	CONTROL 10-4
	INSTRUMENT OPERATIONS				1100		REMARKS	100. III.	LOCID	10 1
						TOTAL (10-E)	1			
DAY	AC	AT	GA	MILITARY		(14 - 1)	•			
1	0	4	16	0	(16-19)	20	-			
2	0	1	12	0	(20-23)	13				
3	0	2	9	0	(24-27)	11				
4	0	0	11	0	(28-31)	11				
5	0	5	21	0	(32-35)	26				
6	0	4	13	0	(36-39)	17				
7	0	7	11	0	(40-43)	18	-			
8	0	3	33	0	(44-47)	36	-			
9	0	3	25	0	(48-51)	28				
10	0	5	15	0	(52-55)	20	-			
11	0	0	50	0	(56-59)	50	-			
12	0	5	31	0	(60-63)	36				
13	0	13	40	0	(64-67)	53				
14	0	2	17	0	(68-71)	19	-			
15	0	8	26	0	(72-75)	34				
16	0	2	12	0	(76-79)	14				
						(14-2)				
17	0	7	17	0	(16-19)	24				
18	0	1	14	0	(20-23)	15				
19	0	7	10	0	(24-27)	17				
20	0	22	19	0	(28-31)	41	-			
21	0	9	13	0	(32-35)	22				
22	0	7	15	0	(36-39)	22	-			
23	0	5	28	0	(40-43)	33	4			
24	0	10	30	0	(44-47)	40	-			
25	0	6	27	0	(48-51)	33	1			
26	0	7	30	0	(52-55)	37	•			
27	0	6	16	0	(56-59)	22	•			
28	0	9	24	0	(60-63)	33				
29	0	12	12	0	(64-67)	24	1			
30	0	6	7	0	(68-71)	13	•			
31	0	4	11	0	(72-75)	15				
TOTAL	0	182	615	0		797				
	(17-21)	(22-26)	(27-31)	(32-36)			-			
ACILITY USE										

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
7/1/22	23:10	N7645F	P28A	21	74.3	2	PROTEUS AIR SERVICES	Р
7/1/22	23:28	N948CP	C182	21	74.8	2	CIVIL AIR PATROL	Р
7/2/22	23:03	N882AB	SR20	21	72.0	2	SANTA MONICA FLYERS	Р
7/2/22	23:21	N5148V	C172	21	65.5	2	SANTA MONICA FLYERS	Р
7/3/22	23:27	N385MR	CRUZ	21	DNR	2	SANTA MONICA FLYERS	Р
7/5/22	23:53	N724TT	SR20	21	73.3	2	PROTEUS AIR SERVICES	Р
7/5/22	23:59	N593EH	SR20	21	71.1	2	HYPERSCALE.DESIGN LLC	Р
7/14/22	23:42	N505DE	FA50	21	87.3	2	MARINELLI PAUL T TRUSTEE	J
7/16/22	23:22	N441CM	P46T	21	84.2	2	BANZ CHARLES MICHAEL	Р
7/19/22	23:24	N702SC	SR20	21	71.0	2	PROTEUS AIR SERVICES	Р
7/28/22	6:38	N1220A	PC12	21	89.0	2	RIVERS END RANCH LLC	Р
7/29/22	23:43	N5148V	C172	21	DNR	2	SANTA MONICA FLYERS	Р
7/30/22	0:34	N330QS	E55P	21	86.9	2	NETJETS SALES INC	J
7/31/22	23:17	N702SC	SR20	21	DNR	2	VALKYRIE AVIATION LLC	Р

ATTACHMENT C (Authorized Departures & Curfew Violations)

Authorized Curfew Departures

NONE

Curfew Violations

NONE

ATTACHMENT D (Aircraft Noise Violations)

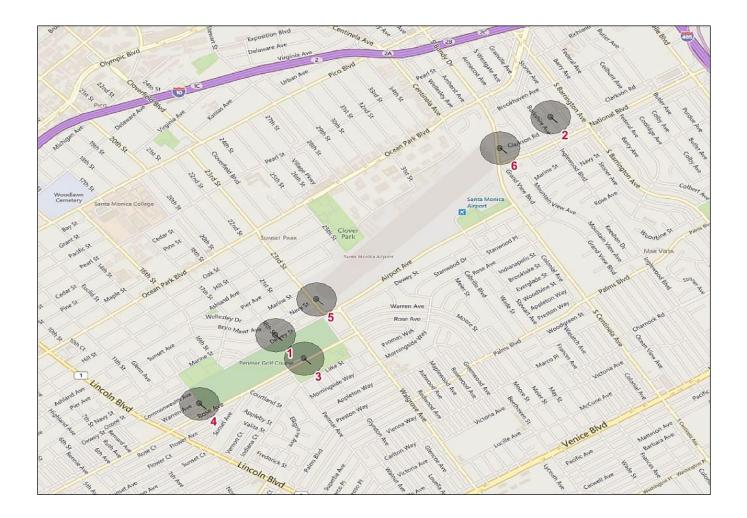
AIRCRAFT ENGINE CATEGORY LEGEND

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

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
7/2/22	11:33	N1421G	BE50	21	101.7	1	MARTIN GOMEZ VECSLIR	WARNING	Р
7/4/22	14:58	N1983W	BE36	21	95.7	1	TAILWINDS LLC	WARNING	Р
7/4/22	17:07	N1421G	BE50	21	100.7	1	MARTIN GOMEZ VECSLIR	WARNING	Р
7/26/22	08:54	N400JA	E55P	21	96.3	1	JETAVIVA 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.

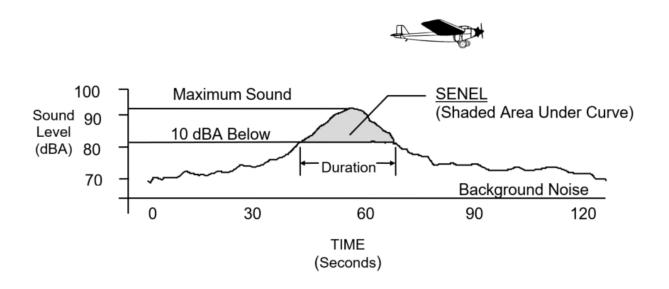
ATTACHMENT F (Single Event Noise Exposure Level)

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 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.