

# Santa Monica Airport Monthly Operations Report

May 2023

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Airport Traffic Record

#### **ATTACHMENT B**

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#### ATTACHMENT E

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Single Event Noise Exposure Level (SENEL)

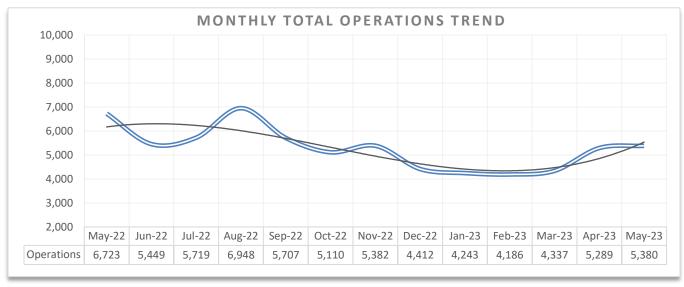
#### I. Introduction

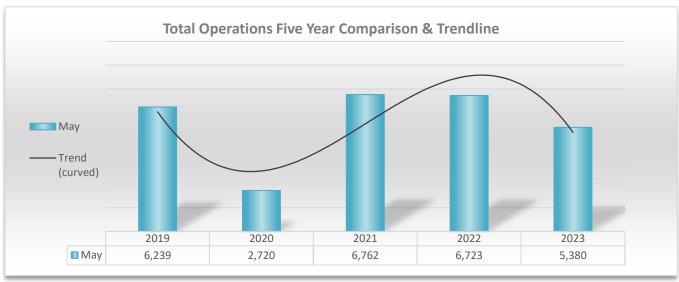
This report has been prepared to inform the Airport Commission and the general public regarding the Santa Monica Airport's Noise Management Program. The report provides details on aircraft operations (aircraft operation is defined as one takeoff or one landing), noise violations, deviations to the fly neighborly program, and curfew violations for the month of May 2023.

#### II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of May 2023 was 5,380, which represents a 20% decrease from the 6,723 operations recorded during May 2022. Approximately 26% of the operations were instrument flights (IFR transient), 38% were local flights (VFR local operations), and 36% 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.

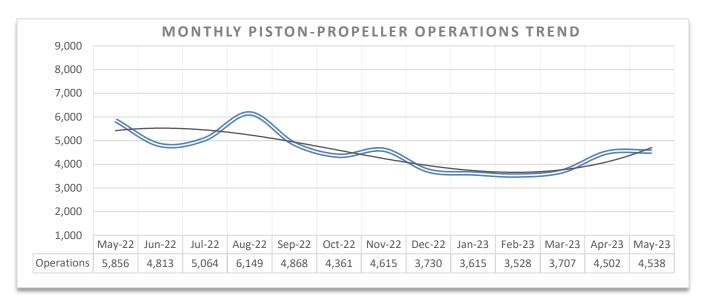
Breakdowns of the total operations grouped by aircraft type and a graph for each type indicating each monthly aircraft operations trend during the preceding 12-month period are as follows.

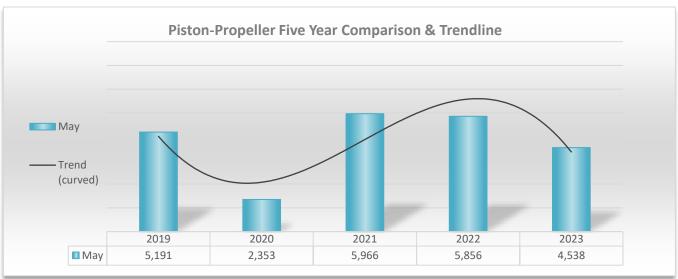




#### Piston-propeller Aircraft Operations

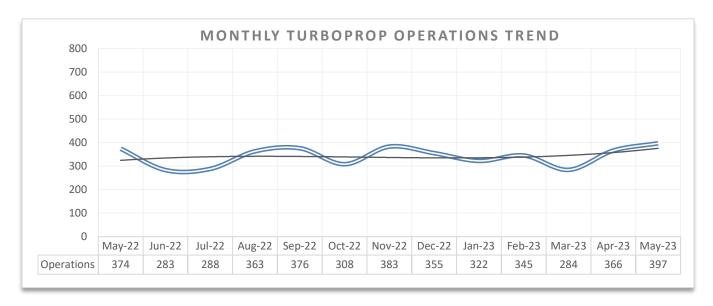
There were approximately 4,538 piston-propeller aircraft operations recorded, comprising approximately 84% of the total operations. Piston-propeller aircraft operations for May 2023 decreased 23% from the 5,856 piston-propeller aircraft operations recorded during May 2022.





#### **Turboprop Operations**

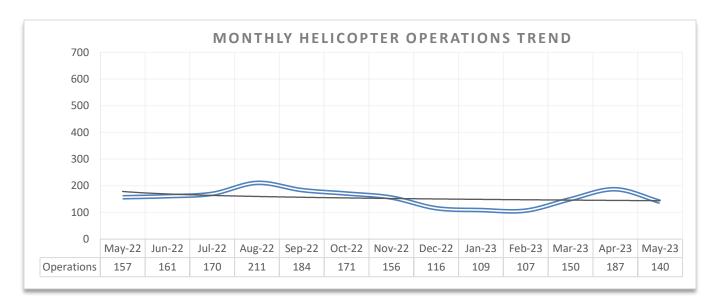
The difference between a turboprop and piston-propeller aircraft is simply their engine type. Turboprops have one or more turbine engines, while piston-propeller aircraft have one or more reciprocating piston engines. Of the total monthly aircraft operations for May 2023, approximately 397 were by turboprop aircraft, comprising approximately 7% of the total operations. Turboprop aircraft operations increased approximately 6% from the 374 operations recorded during May 2022.

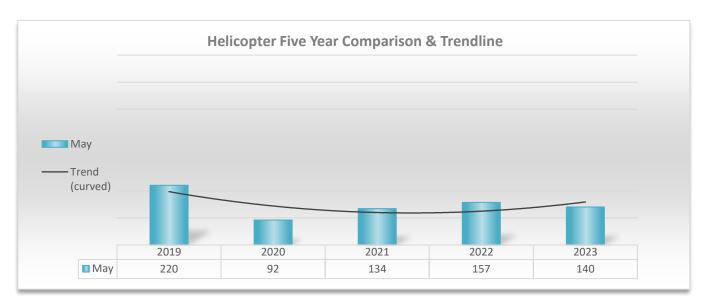




#### **Helicopter Operations**

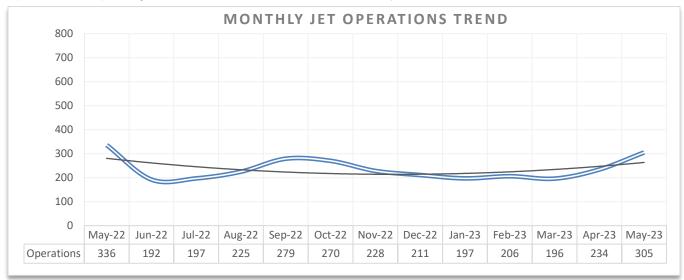
Of the monthly aircraft operations for May 2023, approximately 140 operations are attributed to helicopters, comprising approximately 3% of the total operations. Helicopter operations during May 2023 decreased approximately 11% from the 157 helicopter operations recorded in May 2022.



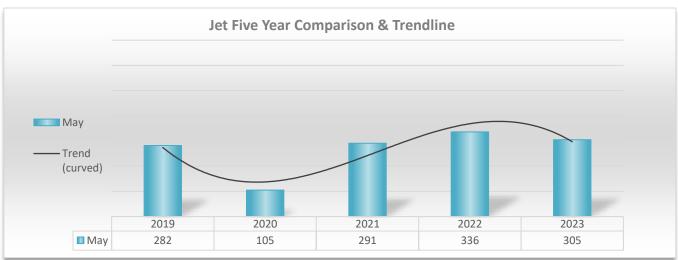


#### Jet Aircraft Operations

In May of 2023, there were approximately 305 jet operations recorded, encompassing approximately 6% of the total operations. Jet operations for May decreased 9% from the 336 jet aircraft operations recorded during May 2022. Daily jet operations vary significantly day over day. During the month of May 2023, jet aircraft averaged 10 operations per day. The bar graph below represents the monthly and daily operations for jet engine driven aircraft for the month of May 2023.

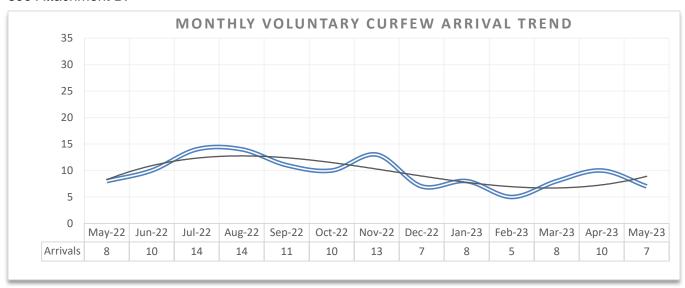


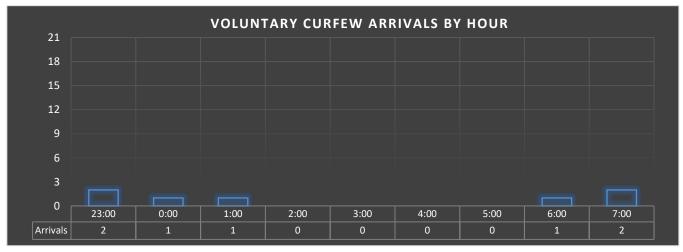


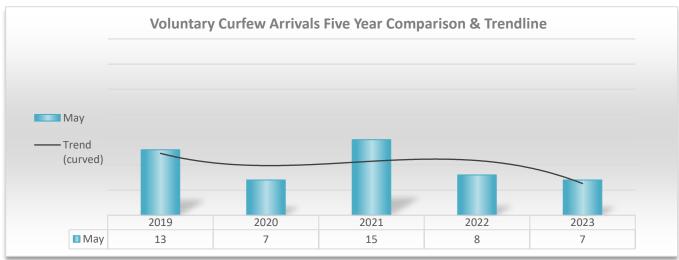


#### III. Voluntary Arrival Curfew

During the month of May 2023, Airport Staff logged a total of 7 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 2023. 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 2023, 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 May 2023 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.

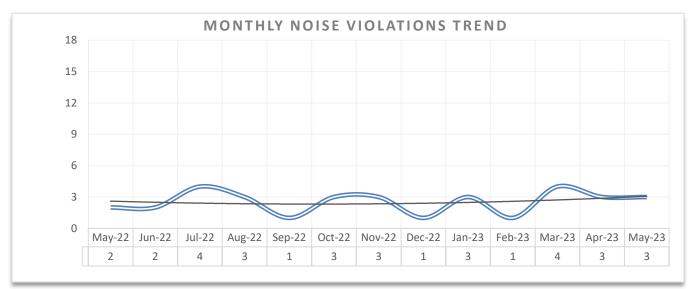
#### VII. Noise Violations

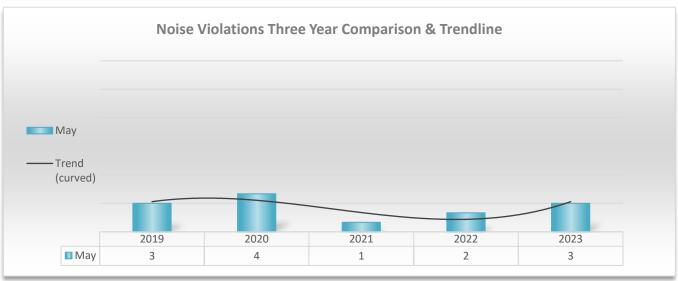
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing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

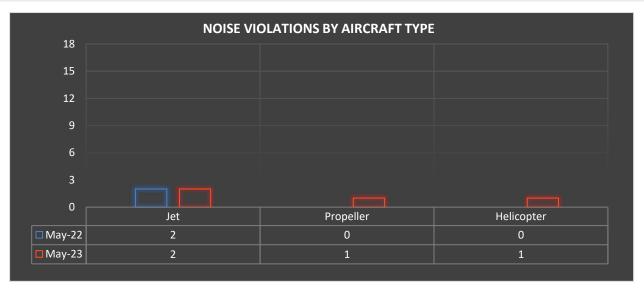
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of May 2023, there were 3 noise violations recorded, a 50% increase compared to 2 noise violations recorded during May 2022. A summary of noise violations for May 2023 is listed on attachment D. Of the 5,380 aircraft operations recorded during the month of May 2023, 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 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

	Violationo Broakaowii by Boolboi Eovoi												
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	1	0	0	0	0	0	2	67%				
Propeller	0	1	0	0	0	0	0	1	33%				
Helicopter	0	0	0	0	0	0	0	0	0%				
Total:	1	2	0	0	0	0	0	3					
%	33%	67%	0%	0%	0%	0%	0%		100%				

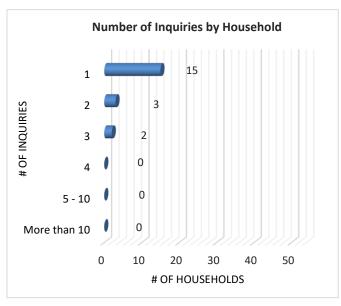


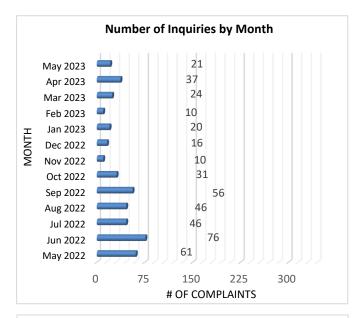


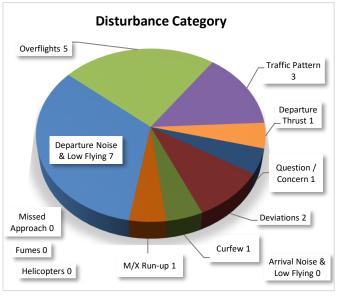


#### VIII. Aircraft Related Inquiries

During the month of May 2023, 20 individual households logged a total of 21 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 May 2023.









### **ATTACHMENT A**

AIRPOR	T TRAFFIC	RECORD		FACILITY N	NAME	LOCATION			05 / 22	SMO	
Mail ORIGI	NAL of this fo	orm to Washir	ngton Office,					(1-2) (3-4)	(5-9)		
APO-110,	thru Regional	Air Traffic D	ivision.	Santa Mon	ica ATCT	Santa Mon	ica , Californ	nia MO. YR. LOC ID			
(10-1)	FACILITY	TYPE ("X" (	ONE)			IF DAILY HOURS					
(11)								TYPE	OF OPERATI	ON	
	APPROACH		B. RADAR					CHANGEI	HAVE CHANG	GED,	
	CONTROL	$\rightarrow$	C. LIMITED	RADAR	х	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	<b>→</b>		
	<b>└</b> → (a	lso submit F	AA Form 723	30-26)						(77-78) (79)	
				AIRPC	ORT OPERATION	NS COUNT					
		ITIN	ERANT				LOCAL				
									TOTAL	SPECIAL	
DAY	AC	AT	GA	MIL	TO TAL	CIVIL	MILITARY	TOTAL	OPERATIONS	USE	
(15-16)	(17-21)	(22-26)	(27-31)	(32-36)	ITINERANT	(37-41)	(42-46)	LOCAL		(47-51)	
1	0	10	91	0	101	85	0	85	186	186	
2	0	17	94	0	111	71	0	71	182	368	
3	0	15	108	0	123	148	0	148	271	639	
4	0	6	57	0	63	175	0	175	238	877	
5	0	15	146	0	161	122	0	122	283	1160	
6	0	5	155	0	160	106	0	106	266	1426	
7	0	16	157	0	173	48	0	48	221	1647	
8	0	12	108	0	120	49	0	49	169	1816	
9	0	8	93	0	101	134	0	134	235	2051	
10	0	6	138	0	144	157	0	157	301	2352	
11	0	13	139	0	152	112	0	112	264	2616	
12	0	21	120	0	141	38	0	38	179	2795	
13	0	7	74	0	81	4	0	4	85	2880	
14	0	14	86	0	100	0	0	0	100	2980	
15	0	15	51	0	66	2	0	2	68	3048	
16	0	13	63	0	76	0	0	0	76	3124	
17	0	3	62	0	65	0	0	0	65	3189	
18	0	9	74	0	83	35	0	35	118	3307	
19	0	8	70	0	78	0	0	0	78	3385	
20	0	3	50	0	53	11	0	11	64	3449	
21	0	20	78	0	98	2	0	2	100	3549	
22	0	9	41	0	50	0	0	0	50	3599	
23	0	12	47	0	59	0	0	0	59	3658	
24	0	12	70	0	82	91	0	91	173	3831	
25	0	20	105	0	125	112	0	112	237	4068	
26	0	14	138	0	152	126	0	126	278	4346	
27	0	15	129	0	144	92	0	92	236	4582	
28	0	15	58	0	73	22	0	22	95	4677	
29	0	17	124	0	141	116	0	116	257	4934	
30	0	14	95	0	109	68	0	68	177	5111	
31	0	11	118	0	129	140	0	140	269	5380	
TOTAL	0	375	2939	0	3314	2066	0	2066	5380		

### ATTACHMENT A

	(ALL Appr	THIS SIDE BY VFR TOV oach Contro se FAA For	VERS ONLY of Terminals		ALL VFR Towers recording Instrument Operations /0 on this side (1-2) MUST COMPLETE MO.					SMO (5-9) LOC ID	ADP CONTROL 10-4
	MUST us		n 7230-26) NT OPERAT	TIONS	MUS	I COMPLE	REMARKS		MO. 1R.	LUCID	10-4
		INSI KUME	ivi oi Lievi	TONS		TOTAL (10-E)	TCAVIT TICKS				
DAY	AC	AT	GA	MILITARY		(10 - E) (14 - 1)					
1	0	8	21	0	(16-19)	29					
2	0	14	24	0	(20-23)	38					
3	0	9	24	0	(24-27)	33					
4	0	5	23	0	(28-31)	28					
5	0	13	26	0	(32-35)	39					
6	0	5	11	0	(36-39)	16					
7	0	11	25	0	(40-43)	36					
8	0	10	10	0	(44-47)	20					
9	0	6	58	0	(48-51)	64					
10	0	6	27	0	(52-55)	33					
11	0	11	28	0	(56-59)	39					
12	0	21	23	0	(60-63)	44					
13	0	7	32	0	(64-67)	39					
14	0	14	35	0	(68-71)	49					
15	0	14	32	0	(72-75)	46					
16	0	11	54	0	(76-79)	65					
						(14-2)					
17	0	3	59	0	(16-19)	62					
18	0	6	37	0	(20-23)	43					
19	0	7	49	0	(24-27)	56					
20	0	3	39	0	(28-31)	42					
21	0	16	46	0	(32-35)	62					
22	0	9	40	0	(36-39)	49					
23	0	12	45	0	(40-43)	57					
24	0	11	41	0	(44-47)	52					
25	0	20	48	0	(48-51)	68					
26	0	14	37	0	(52-55)	51					
27	0	11	24	0	(56-59)	35					
28	0	8	35	0	(60-63)	43					
29	0	14	26	0	(64-67)	40					
30	0	14	34	0	(68-71)	48					
31	0	9	45	0	(72-75)	54					
TOTAL	TAL 0 322 1058 0			1380							
	(17-21) (22-26) (27-31) (32-36)										
FACILITY 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
5/2/23	6:24	N388FX	E55P	21	86.5	2	FLEXJET LLC	J
5/3/23	0:03	N5148V	C172	21	DNR	2	SANTA MONICA FLYERS	Р
5/6/23	23:17	N333YY	SR20	3	73.9	2	ZENTRAX INC	Р
5/7/23	7:16	N3360X	M20P	21	DNR	2	CRAIL AVIATION LLC	Р
5/9/23	1:27	N489RS	DA40	21	DNR	2	VIAGE LLC	Р
5/11/23	23:37	N353MV	C172	21	DNR	2	SANTA MONICA FLYERS	Р
5/20/23	7:32	N2292L	BE35	21	82.6	2	STEVEN GENZOLI	Р

# ATTACHMENT C (Authorized Departures & Curfew Violations)

## **Authorized Curfew Departures**

NONE

## **Curfew Violations**

NONE

# ATTACHMENT D (Aircraft Noise Violations)

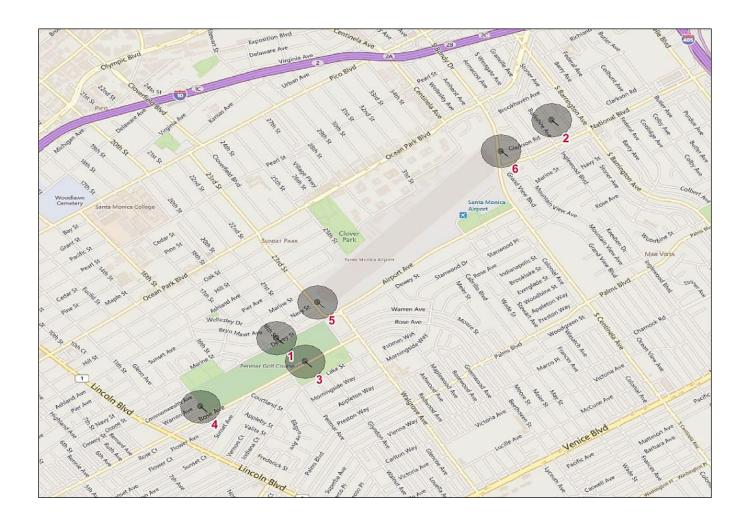
### AIRCRAFT ENGINE CATEGORY LEGEND

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

	DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
ſ	5/12/23	11:36	N188TW	C25B	21	96.4	1	MEI MEI AZ LLC	WARNING	J
ſ	5/12/23	16:28	N518TT	C25C	21	95.3	1	TOWER INDUSTRIES INC./ ALLIED AIRCRAFT LLO	WARNING	J
ſ	5/16/23	13:55	N70MC	BE36	21	96.6	1	EUREKA GROUP LLC	\$5,000	Р

# 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 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.

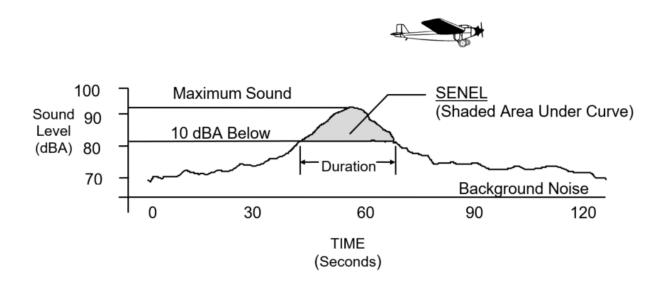
# ATTACHMENT F (Single Event Noise Exposure Level)

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

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.