Santa Monica Airport
Monthly Operations Report

November 2022

Report prepared by:

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Table of Contents

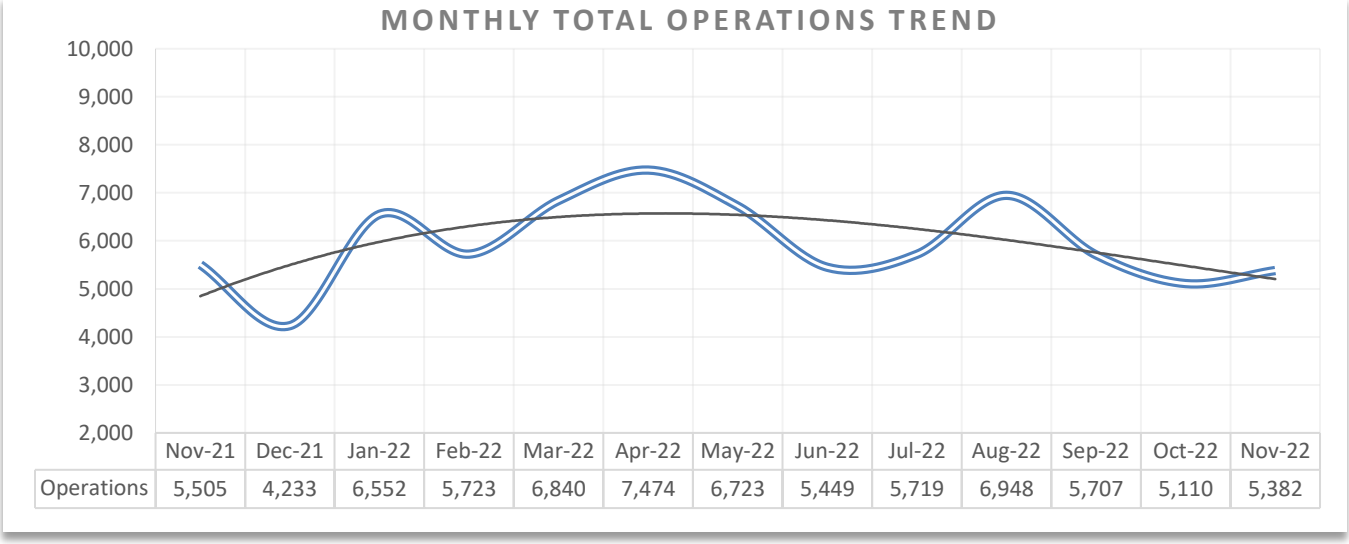
I. Introduction

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 November 2022.

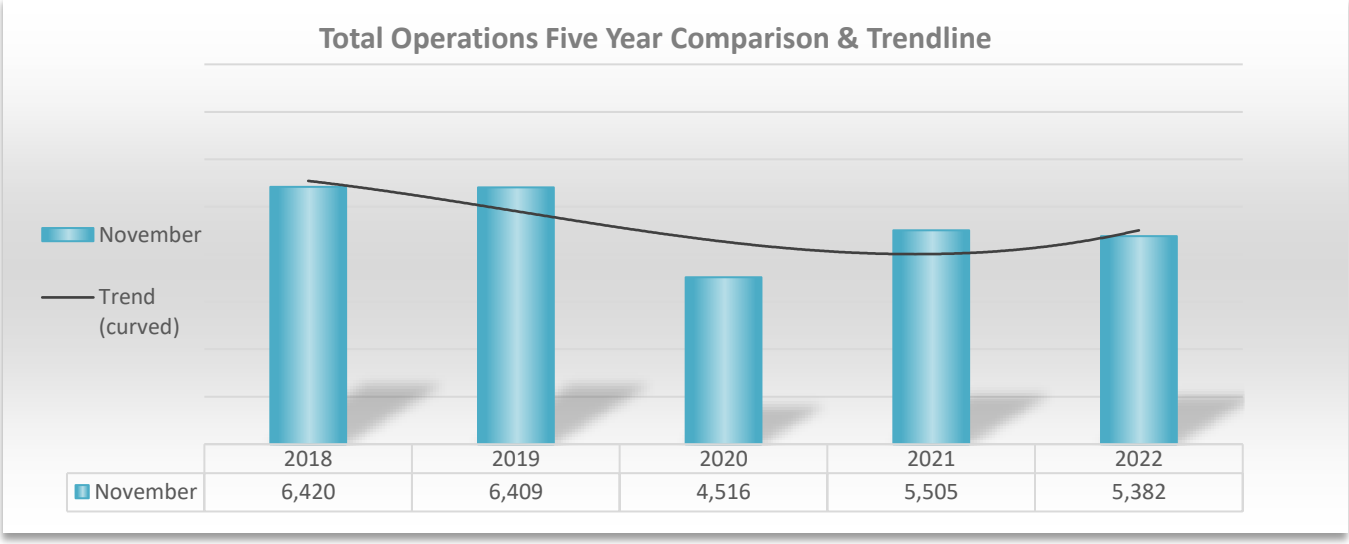
II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of November 2022 was 5,382, which represents a 2% decrease from the 5,505 operations recorded during November 2021. Approximately 15% of the operations were instrument flights (IFR transient), 36% were local flights (VFR local operations), and 49% 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.



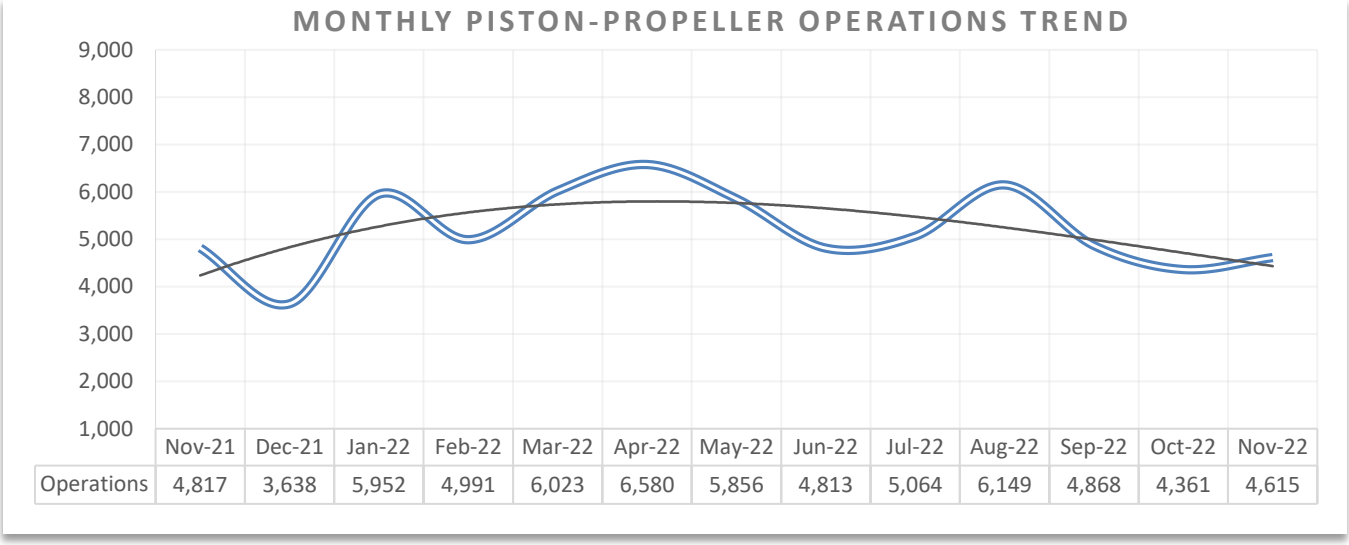
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Operations	5,505	4,233	6,552	5,723	6,840	7,474	6,723	5,449	5,719	6,948	5,707	5,110	5,382



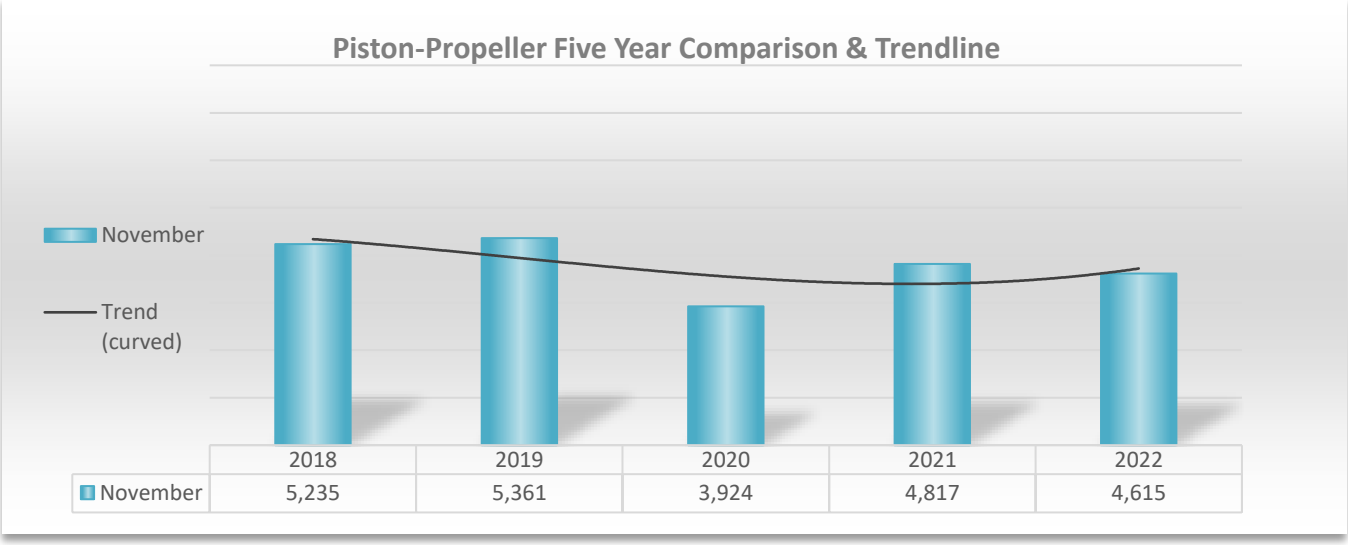
	2018	2019	2020	2021	2022
November	6,420	6,409	4,516	5,505	5,382

Piston-propeller Aircraft Operations

There were approximately 4,615 piston-propeller aircraft operations recorded, comprising approximately 86% of the total operations. Piston-propeller aircraft operations for November 2022 decreased 4% from the 4,817 piston-propeller aircraft operations recorded during November 2021.



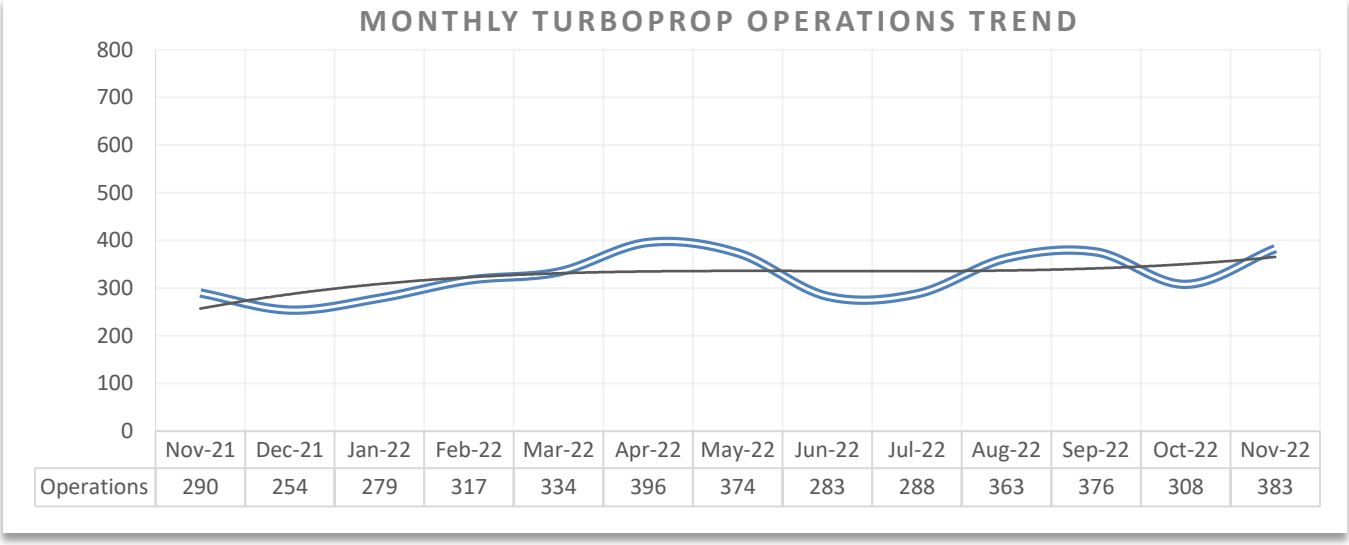
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Operations	4,817	3,638	5,952	4,991	6,023	6,580	5,856	4,813	5,064	6,149	4,868	4,361	4,615



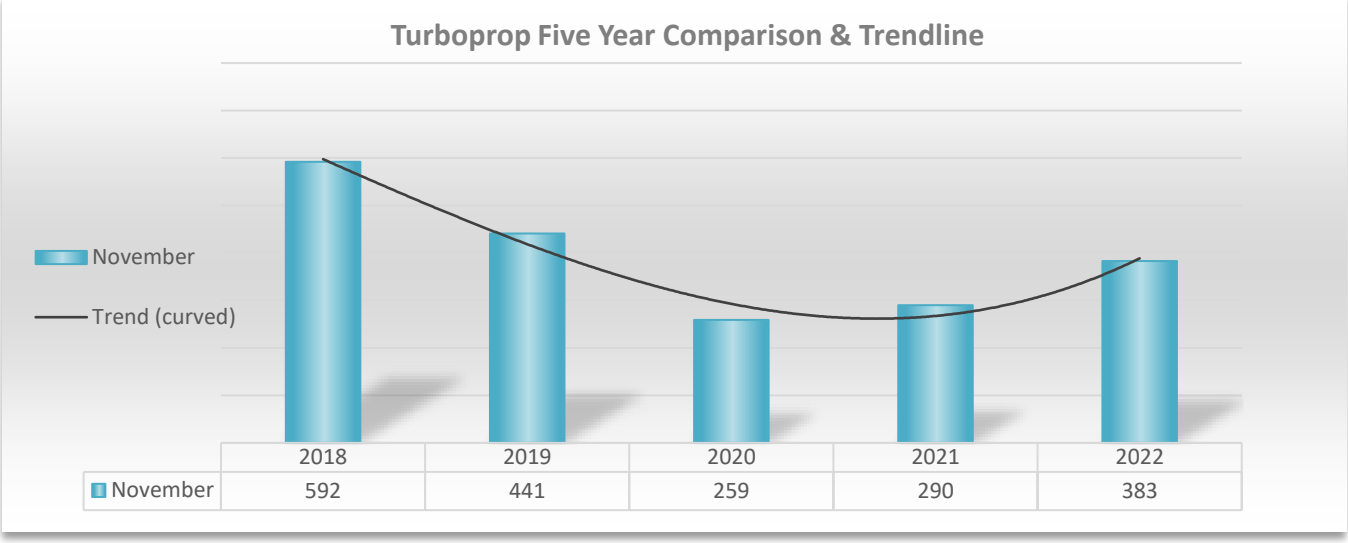
	2018	2019	2020	2021	2022
November	5,235	5,361	3,924	4,817	4,615

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 November 2022, approximately 383 were by turboprop aircraft, comprising approximately 7% of the total operations. Turboprop aircraft operations increased approximately 32% from the 290 operations recorded during November 2021.



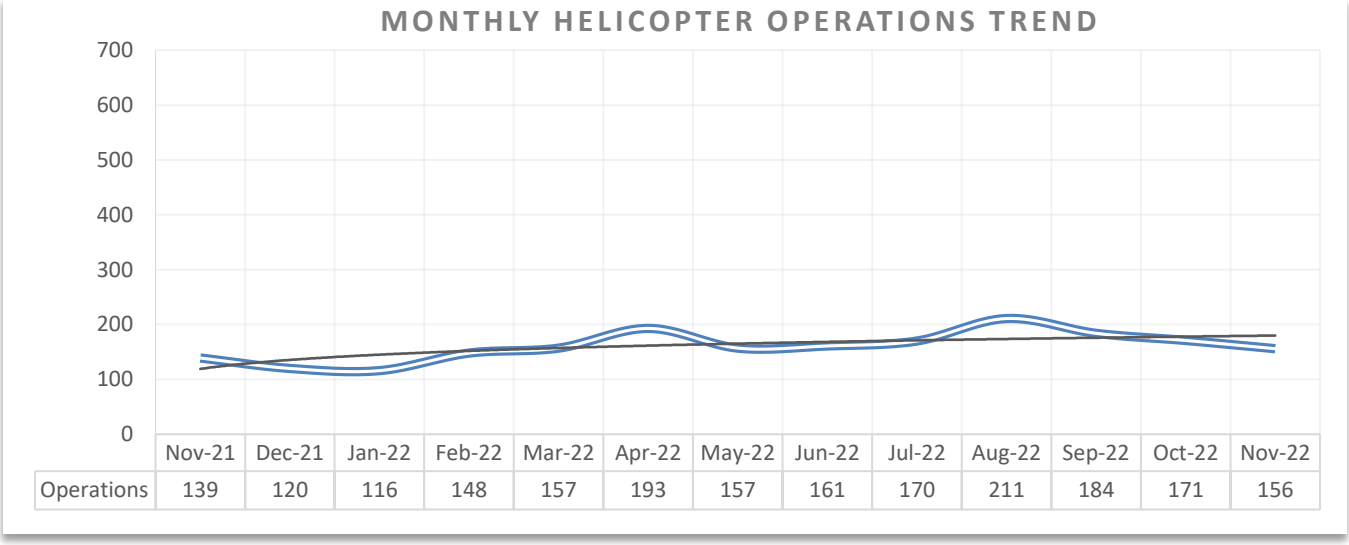
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Operations	290	254	279	317	334	396	374	283	288	363	376	308	383



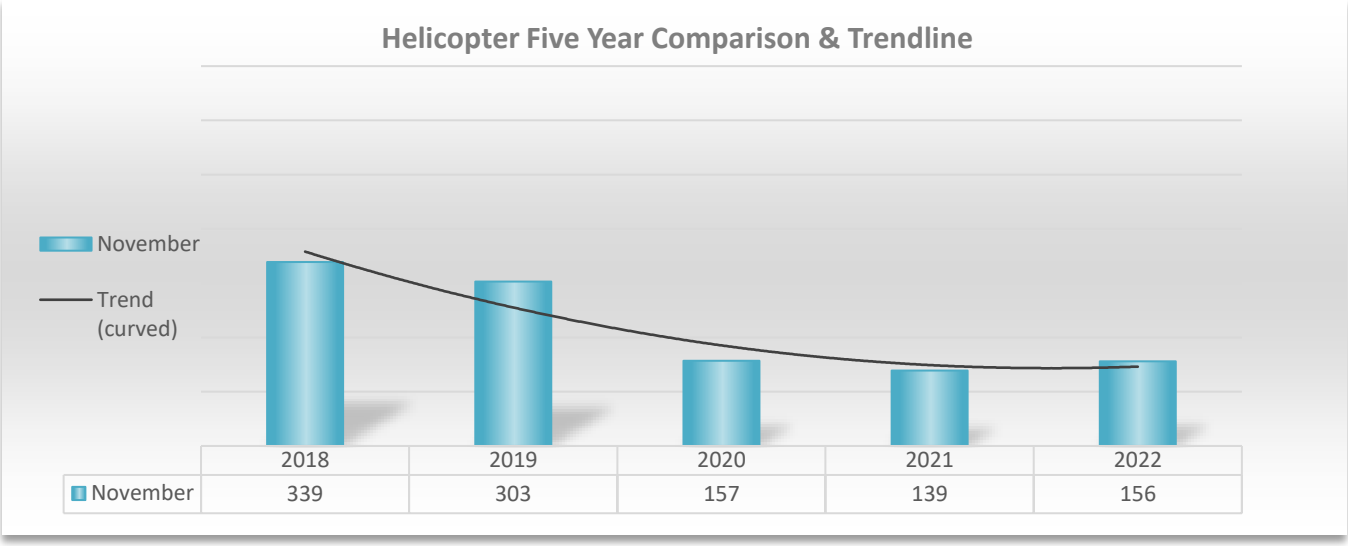
	2018	2019	2020	2021	2022
November	592	441	259	290	383

Helicopter Operations

Of the monthly aircraft operations for November 2022, approximately 156 operations are attributed to helicopters, comprising approximately 3% of the total operations. Helicopter operations during November 2022 increased approximately 12% from the 139 helicopter operations recorded in November 2021.



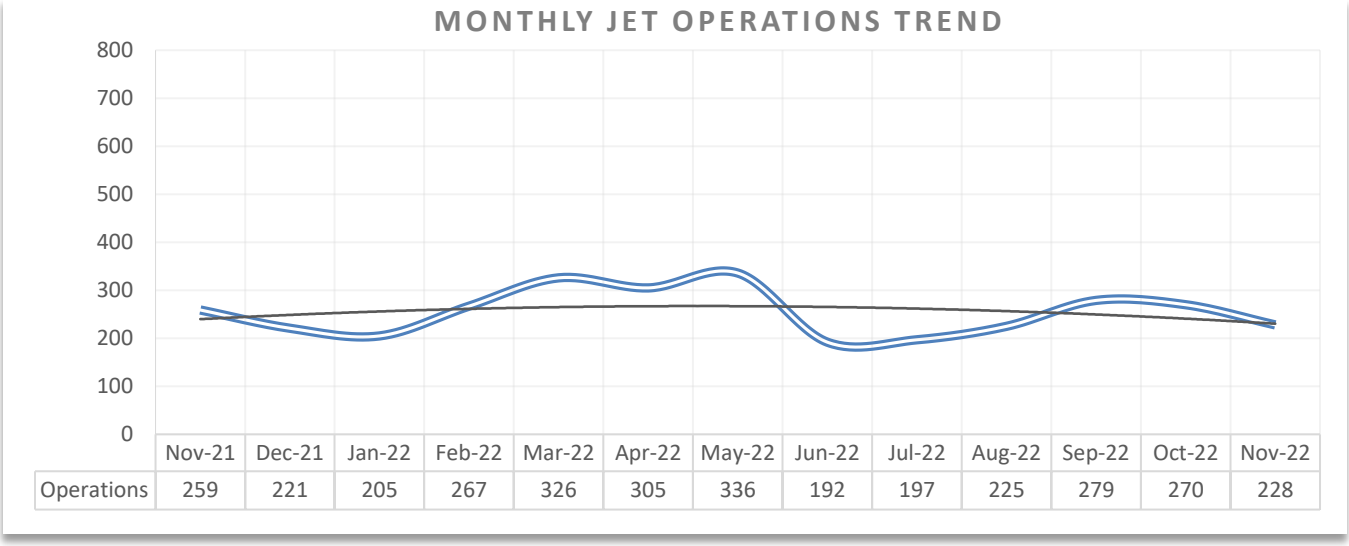
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Operations	139	120	116	148	157	193	157	161	170	211	184	171	156



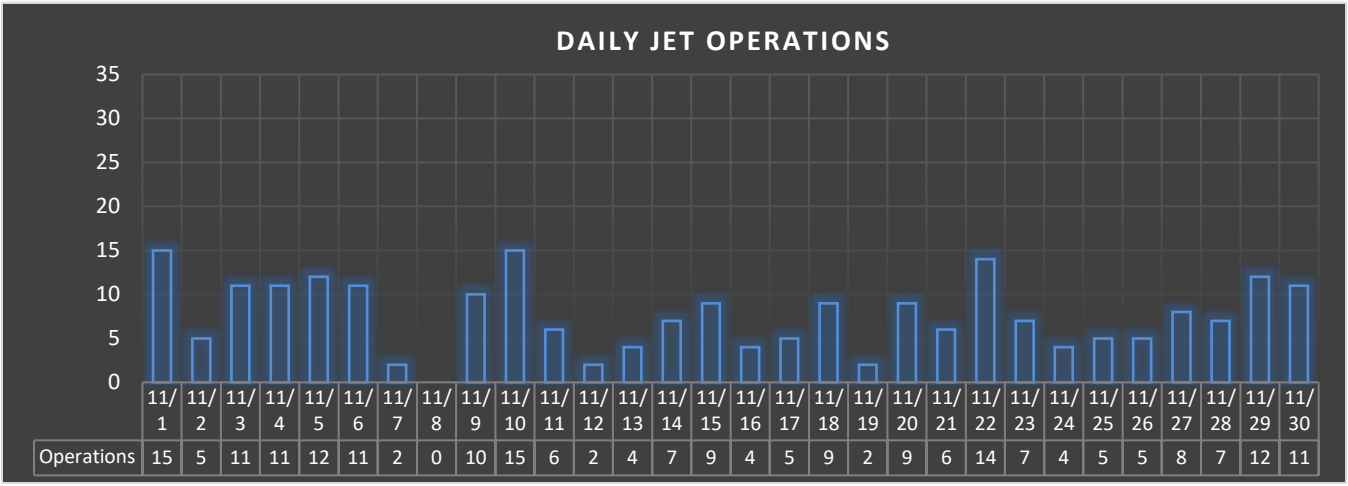
	2018	2019	2020	2021	2022
November	339	303	157	139	156

Jet Aircraft Operations

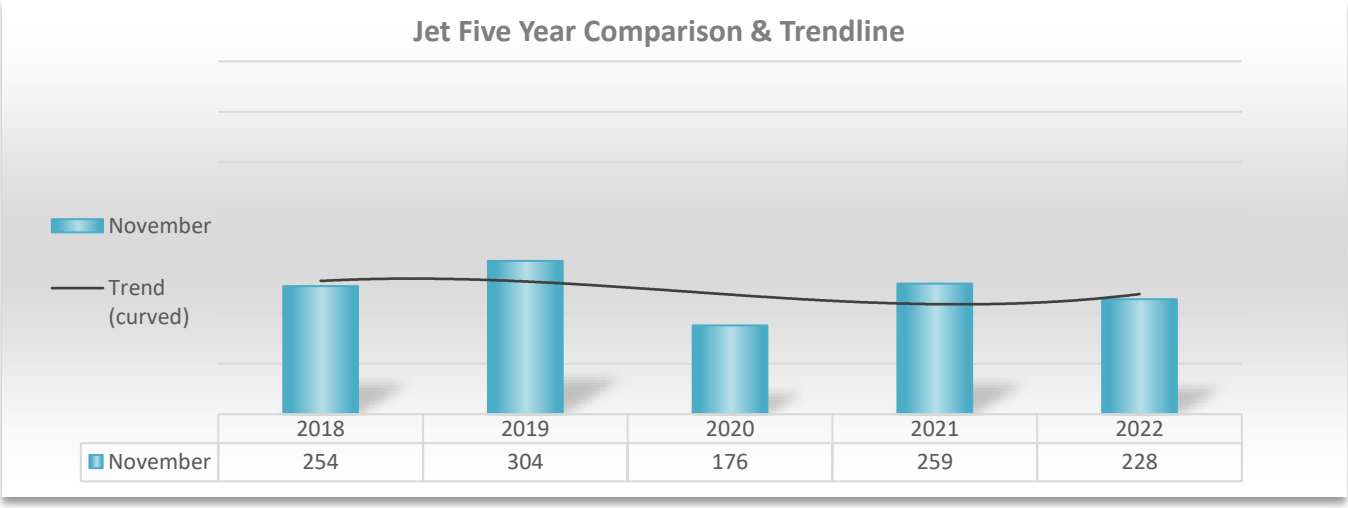
In November of 2022, there were approximately 228 jet operations recorded, encompassing approximately 4% of the total operations. Jet operations for November decreased 12% from the 259 jet aircraft operations recorded during November 2021. Daily jet operations vary significantly day over day. During the month of November 2022, jet aircraft averaged 8 operations per day. The bar graph below represents the monthly and daily operations for jet engine driven aircraft for the month of November 2022.



	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Operations	259	221	205	267	326	305	336	192	197	225	279	270	228



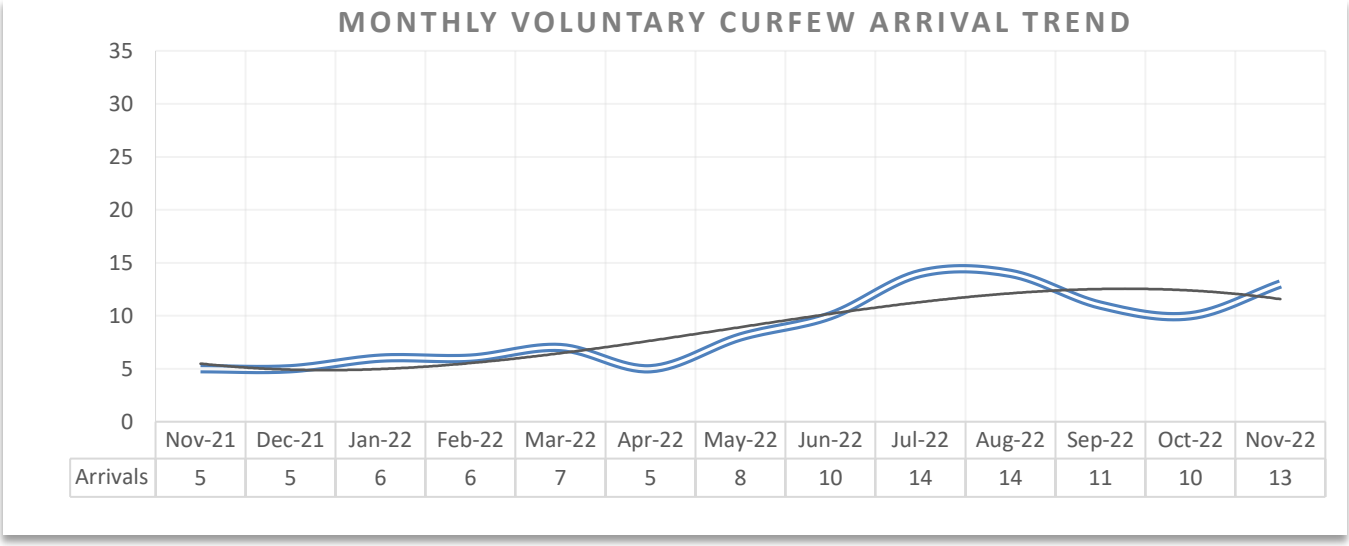
	11/1	11/2	11/3	11/4	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12	11/13	11/14	11/15	11/16	11/17	11/18	11/19	11/20	11/21	11/22	11/23	11/24	11/25	11/26	11/27	11/28	11/29	11/30
Operations	15	5	11	11	12	11	2	0	10	15	6	2	4	7	9	4	5	9	2	9	6	14	7	4	5	5	8	7	12	11



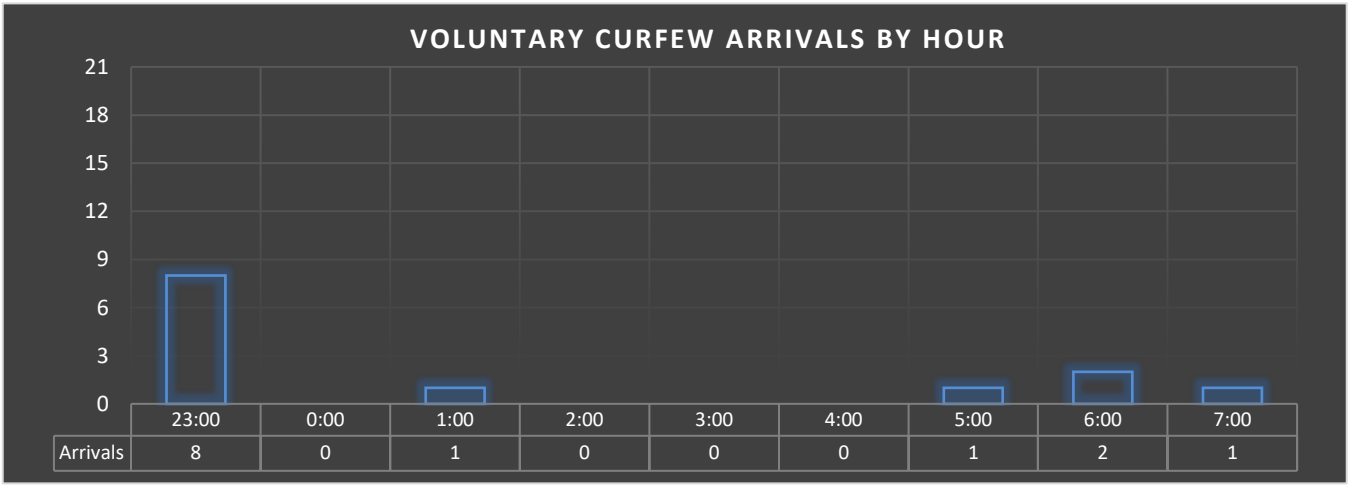
	2018	2019	2020	2021	2022
November	254	304	176	259	228

III. Voluntary Arrival Curfew

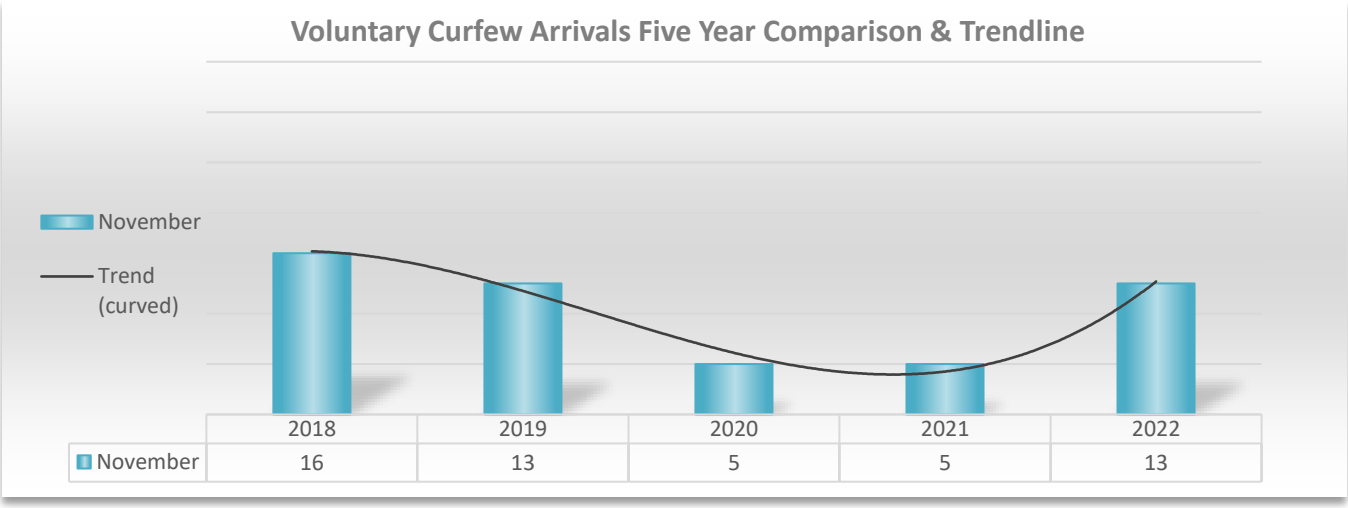
During the month of November 2022, Airport Staff logged a total of 13 aircraft arrivals during the Voluntary Arrival Curfew (VAC), which mirrors the mandatory departure curfew hours of 11:00 p.m. to 7:00 a.m. on weekdays, and 11:00 p.m. to 8:00 a.m. on weekends. The graph below depicts the number of arrivals for each VAC hour during the month of November 2022. For a listing of aircraft arrivals during the night hours, see Attachment B.



	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
Arrivals	5	5	6	6	7	5	8	10	14	14	11	10	13



	23:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00
Arrivals	8	0	1	0	0	0	1	2	1



	2018	2019	2020	2021	2022
November	16	13	5	5	13

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 November 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 November 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.

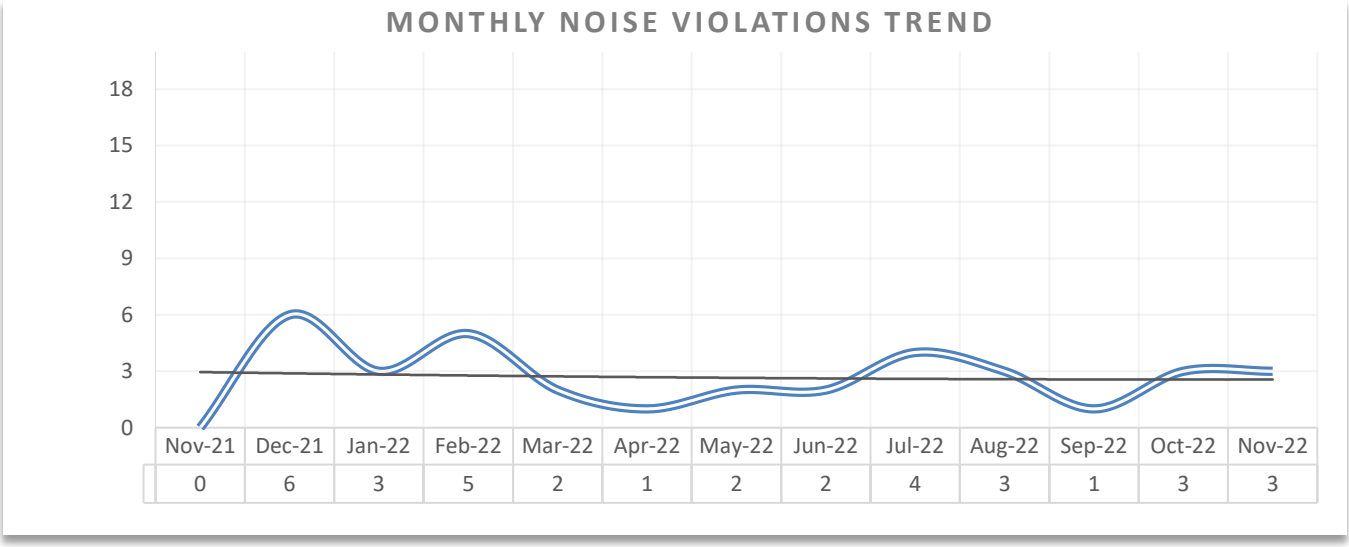
VII. Noise Violations

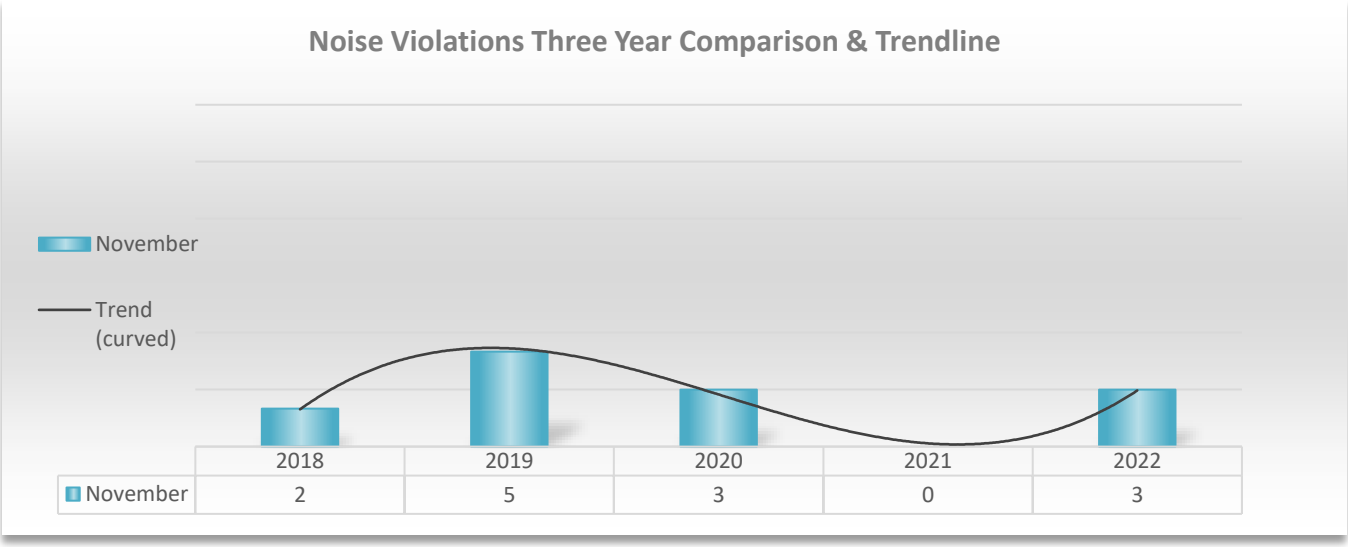
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing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

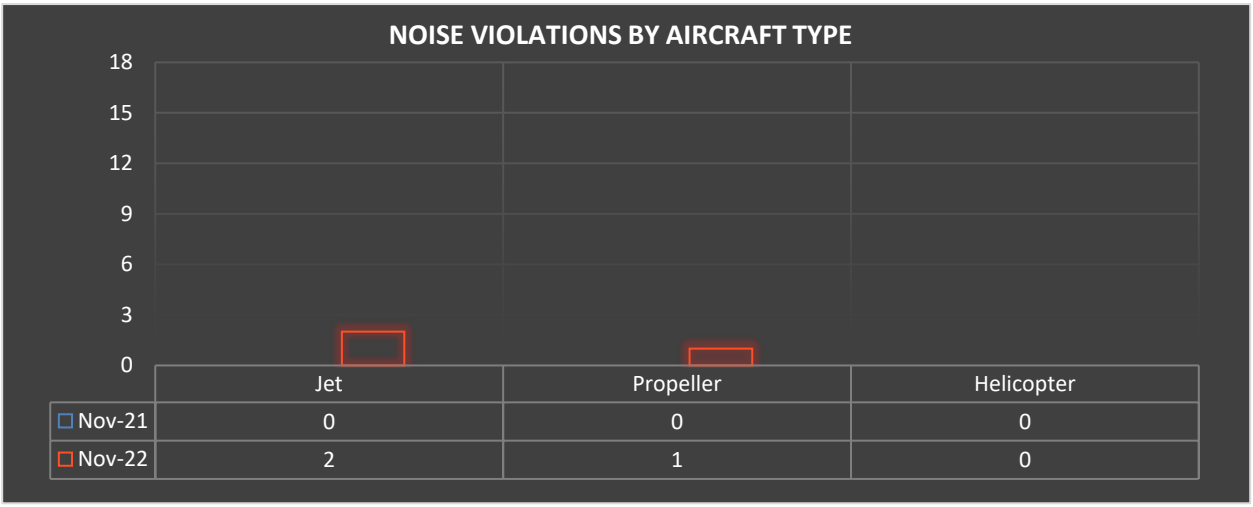
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of November 2022, there were 3 noise violations recorded which represents a slight increase from 0 noise violations recorded during November 2021. A summary of noise violations for November 2022 is listed on attachment D. Of the 5,382 aircraft operations recorded during the month of November 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 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

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	2	0	0	0	0	0	0	**2**	**67%**
Propeller	0	0	0	0	1	0	0	**1**	**33%**
Helicopter	0	0	0	0	0	0	0	**0**	**0%**
Total:	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	
%	**33%**	**0%**	**0%**	**0%**	**33%**	**0%**	**0%**		**100%**

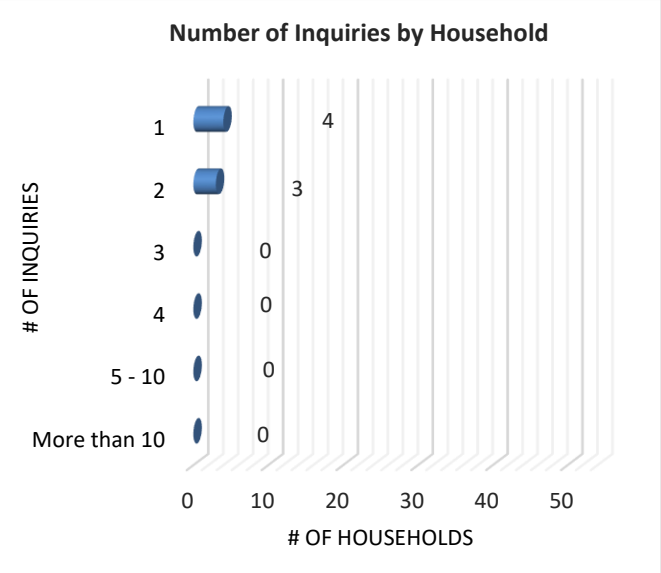

MONTHLY NOISE VIOLATIONS TREND
18
15
12
9
6
3
0
Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22
0 6 3 5 2 1 2 2 4 3 1 3 3

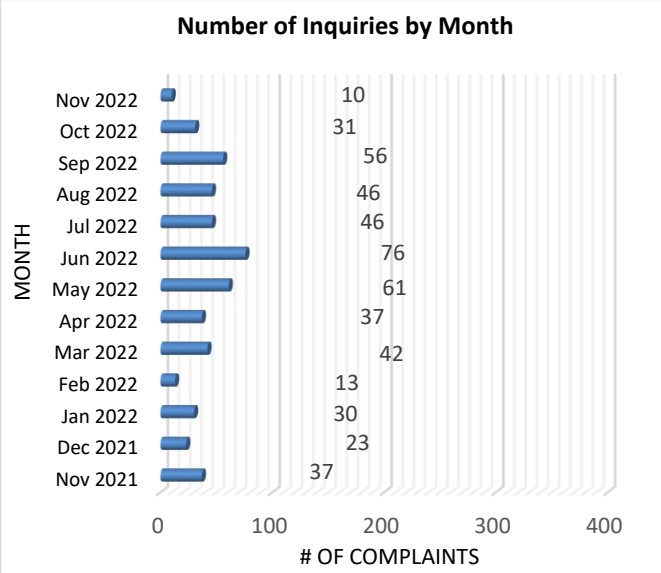

Noise Violations Three Year Comparison & Trendline
November
Trend (curved)
2018 2019 2020 2021 2022
November 2 5 3 0 3

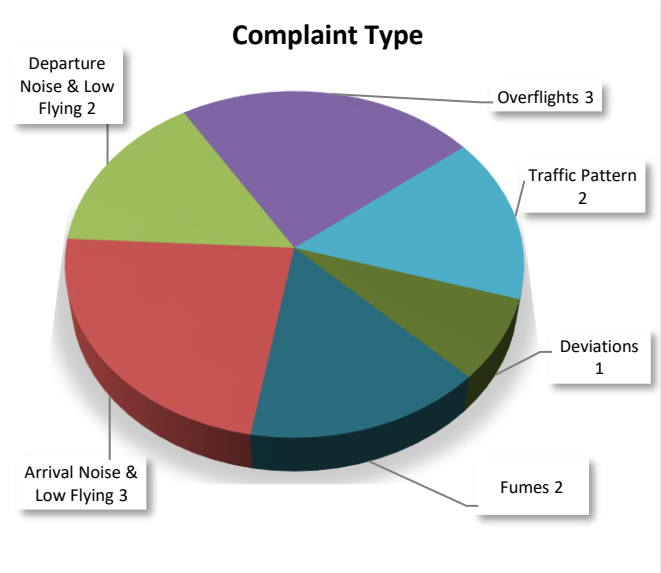

NOISE VIOLATIONS BY AIRCRAFT TYPE
18
15
12
9
6
3
0
Jet Propeller Helicopter
Nov-21 0 0 0
Nov-22 2 1 0

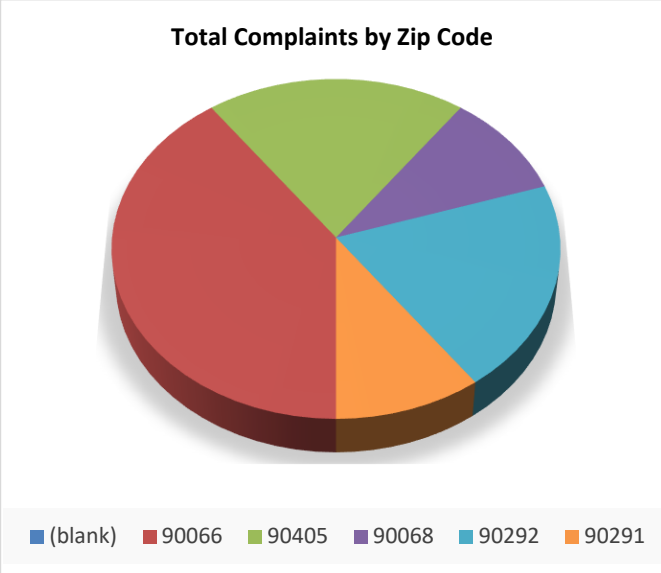
VIII. Aircraft Related Inquiries

During the month of November 2022, 7 individual households logged a total of 10 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 November 2022.









ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	11 / 22	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) FACILITY TYPE ("X" ONE)

(11)

APPROACH CONTROL TOWERS: ☐ B. RADAR ☐ C. LIMITED RADAR ☐ D. NON-RADAR → (also submit FAA Form 7230-26)

☒ 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	16	89	0	105	21	2	23	128	128
2	0	9	75	0	84	36	0	36	120	248
3	0	8	93	0	101	58	0	58	159	407
4	0	12	155	0	167	96	0	96	263	670
5	0	10	172	0	182	66	0	66	248	918
6	0	10	137	0	147	72	0	72	219	1137
7	0	0	26	0	26	0	0	0	26	1163
8	0	0	5	0	5	0	0	0	5	1168
9	0	4	96	0	100	79	0	79	179	1347
10	0	17	139	0	156	106	0	106	262	1609
11	0	15	150	0	165	107	0	107	272	1881
12	0	13	114	0	127	47	0	47	174	2055
13	0	10	121	0	131	20	0	20	151	2206
14	0	10	111	0	121	49	0	49	170	2376
15	0	11	120	0	131	35	0	35	166	2542
16	0	13	70	0	83	92	0	92	175	2717
17	0	6	127	2	135	78	0	78	213	2930
18	0	16	146	0	162	144	0	144	306	3236
19	0	9	68	0	77	72	0	72	149	3385
20	0	8	163	0	171	79	0	79	250	3635
21	0	13	106	0	119	84	0	84	203	3838
22	0	12	130	0	142	86	0	86	228	4066
23	0	7	131	0	138	118	0	118	256	4322
24	0	6	32	0	38	16	0	16	54	4376
25	0	0	96	0	96	74	0	74	170	4546
26	0	7	122	0	129	49	0	49	178	4724
27	0	9	127	0	136	52	0	52	188	4912
28	0	10	50	0	60	9	0	9	69	4981
29	0	11	90	0	101	60	0	60	161	5142
30	0	11	85	0	96	144	0	144	240	5382
31	0				0		0	0	0	5382
TOTAL	0	283	3146	2	3431	1949	2	1951	5382	

FAA Form 7230-1 (8-78) SUPERSEDES PREVIOUS EDITION AND FAA FORM 7230-11 RIS: AT 7230-99

ATTACHMENT A

MUST use FAA Form 7230-26)	*MUST COMPLETE*	MO. YR.	LOC ID	10-4

INSTRUMENT OPERATIONS							REMARKS
DAY	**AC**	**AT**	**GA**	**MILITARY**		**TOTAL (10 - E) (14 - 1)**	
1	0	9	51	0	(16-19)	60	
2	0	9	16	0	(20-23)	25	
3	0	5	14	0	(24-27)	19	
4	0	8	17	0	(28-31)	25	
5	0	8	35	0	(32-35)	43	
6	0	9	19	0	(36-39)	28	
7	0	0	22	0	(40-43)	22	
8	0	0	5	0	(44-47)	5	
9	0	4	20	0	(48-51)	24	
10	0	11	24	0	(52-55)	35	
11	0	11	19	0	(56-59)	30	
12	0	8	20	0	(60-63)	28	
13	0	7	22	0	(64-67)	29	
14	0	6	11	0	(68-71)	17	
15	0	5	20	0	(72-75)	25	
16	0	8	9	0	(76-79)	17	
						(14-2)	
17	0	7	16	0	(16-19)	23	
18	0	9	12	0	(20-23)	21	
19	0	4	10	0	(24-27)	14	
20	0	4	23	0	(28-31)	27	
21	0	8	15	0	(32-35)	23	
22	0	8	17	0	(36-39)	25	
23	0	4	25	0	(40-43)	29	
24	0	6	1	0	(44-47)	7	
25	0	0	11	0	(48-51)	11	
26	0	4	17	0	(52-55)	21	
27	0	4	21	0	(56-59)	25	
28	0	8	31	0	(60-63)	39	
29	0	6	20	0	(64-67)	26	
30	0	9	61	0	(68-71)	70	
31	0	0	0	0	(72-75)	0	
TOTAL	0	189	604	0		793	
	(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
11/1/22	6:47	N27VJ	SF50	21	76.9	2	COLEMAN LIVERY LLC	J
11/5/22	7:49	N12VJ	SF50	21	74.6	2	CEI-VISION I LLC	J
11/5/22	23:08	N724LA	DA40	21	72.2	2	464C59 LLC	P
11/6/22	23:29	N25VL	S22T	21	80.8	2	VAN DER LINDEN VICTOR R	P
11/10/22	23:06	N353MV	C172	21	DNR	2	SANTA MONICA FLYERS	P
11/11/22	23:32	N882AB	SR20	3	75.3	1	SANTA MONICA FLYERS	P
11/11/22	23:35	N25VL	S22T	21	80.9	2	VAN DER LINDEN VICTOR R	P
11/14/22	5:52	N4058R	PA32	21	69.2	2	SANDERS CHRISTOPHER A	P
11/15/22	1:32	N333YY	SR20	21	73.8	2	SANTA MONICA FLYERS	P
11/15/22	23:09	N333YY	SR20	21	68.0	2	SANTA MONICA FLYERS	P
11/17/22	6:49	N505DE	FA50	3	87.1	1	MARINELLI PAUL T TRUSTEE	J
11/17/22	23:08	N7645F	P28A	3	73.8	1	PROTEUS AIR SERVICES	P
11/20/22	23:28	N5322P	C172	21	DNR	2	SANTA MONICA FLYERS	P

ATTACHMENT C
(Authorized Departures & Curfew Violations)

Authorized Curfew Departures

NONE

Curfew Violations

NONE

ATTACHMENT D
(Aircraft Noise Violations)

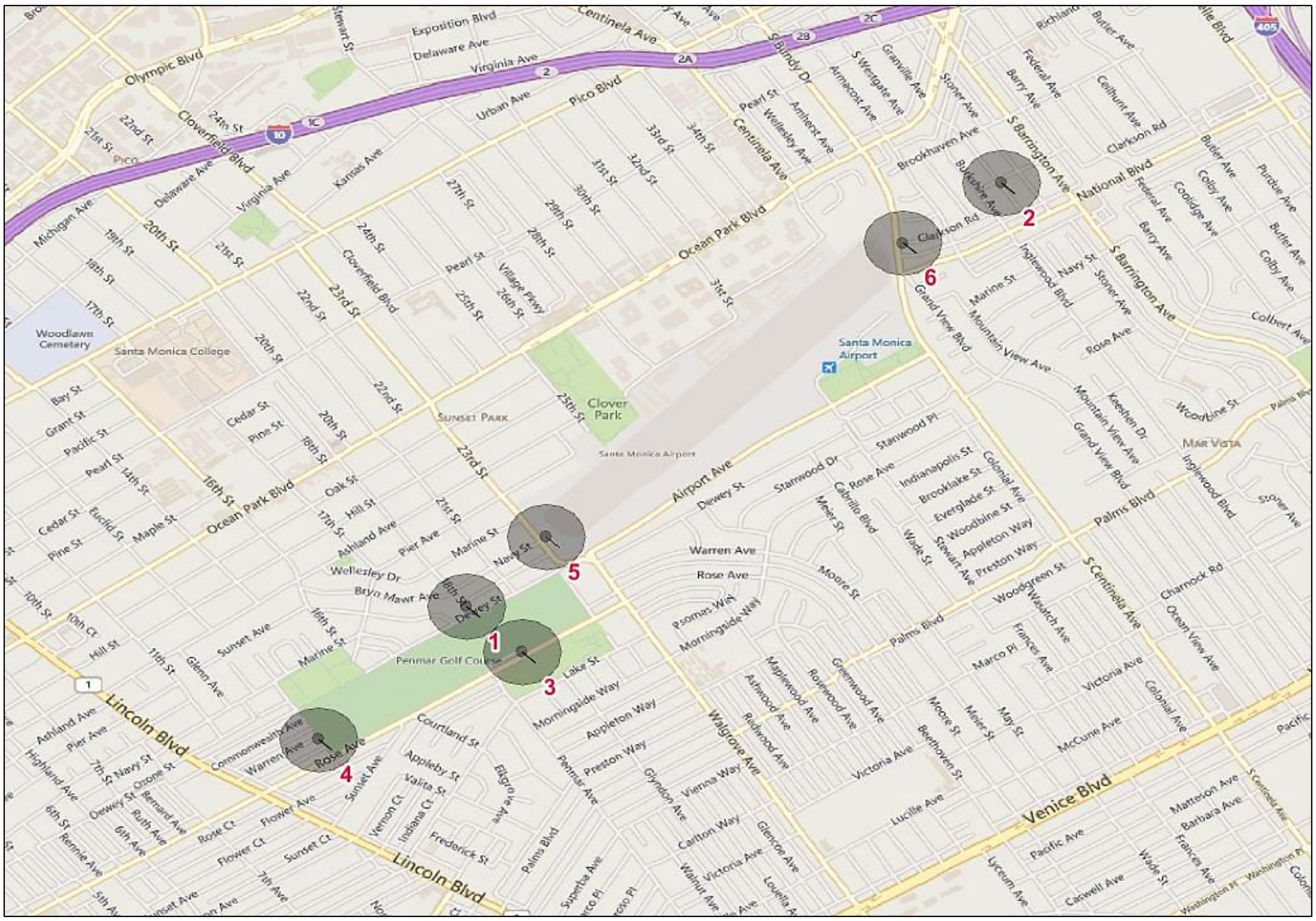
AIRCRAFT ENGINE CATEGORY LEGEND

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

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
11/1/22	9:01	N224WA	PC24	21	95.1	1	VCPC12 LLC	WARNING	J
11/17/22	11:25	N1337A	CORS	21	99.4	1	CORSAIR N1337A LLC	WARNING	P
11/26/22	16:26	N862LG	E55P	21	95.3	1	PACIFIC COAST JET / CORNERSTONE AVIATION	$2,000	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.

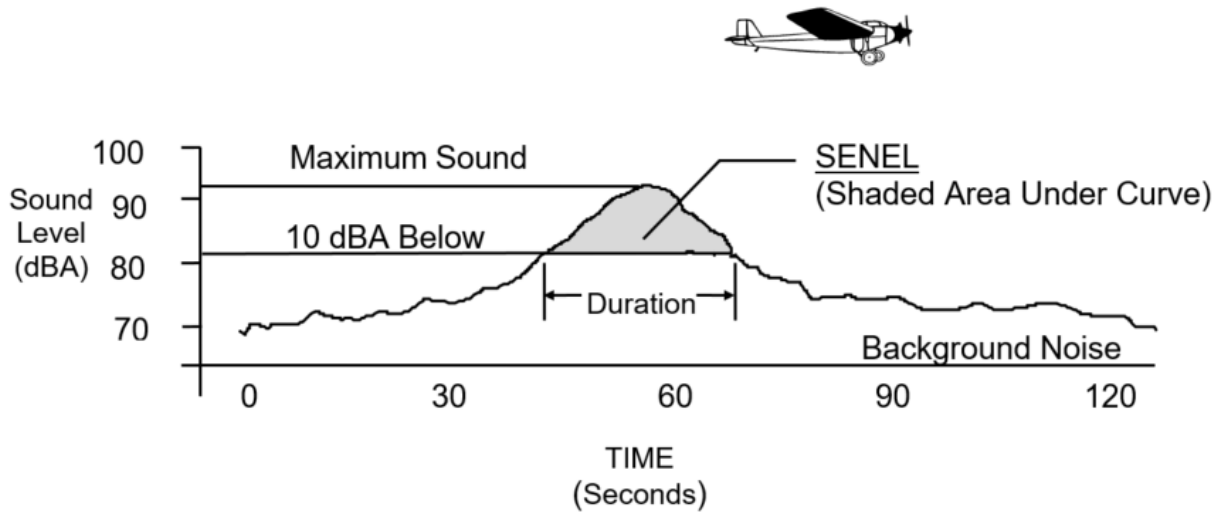
ATTACHMENT F
(Single Event Noise Exposure Level)

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.