Santa Monica Airport
Monthly Operations Report

February 2023

Report prepared by:

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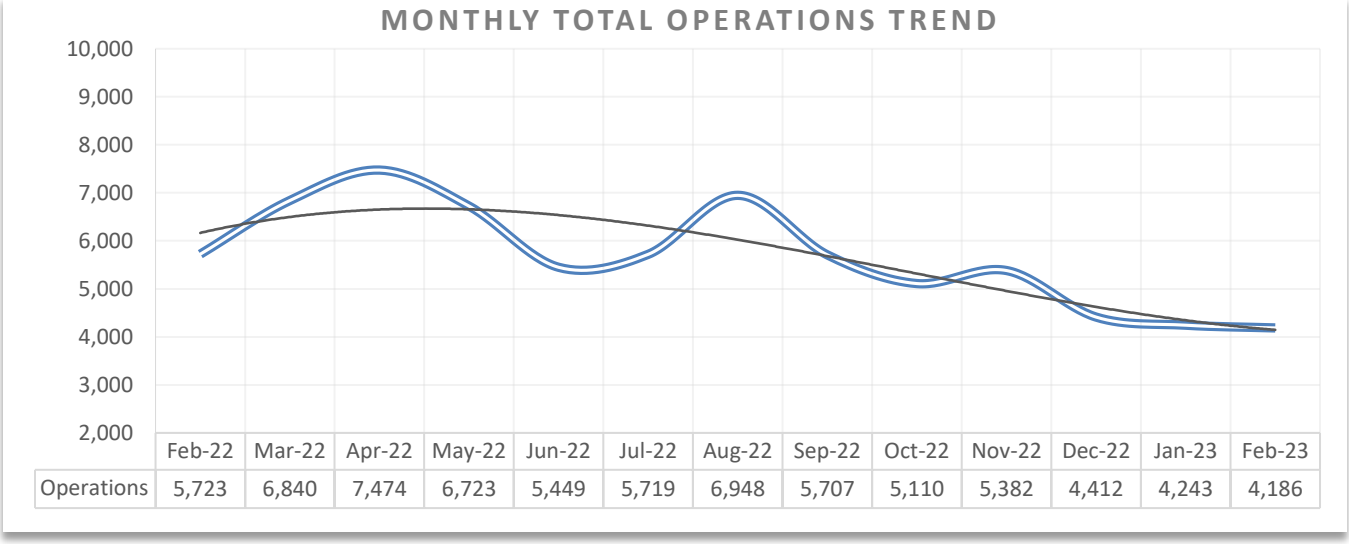
I. Introduction

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 February 2023.

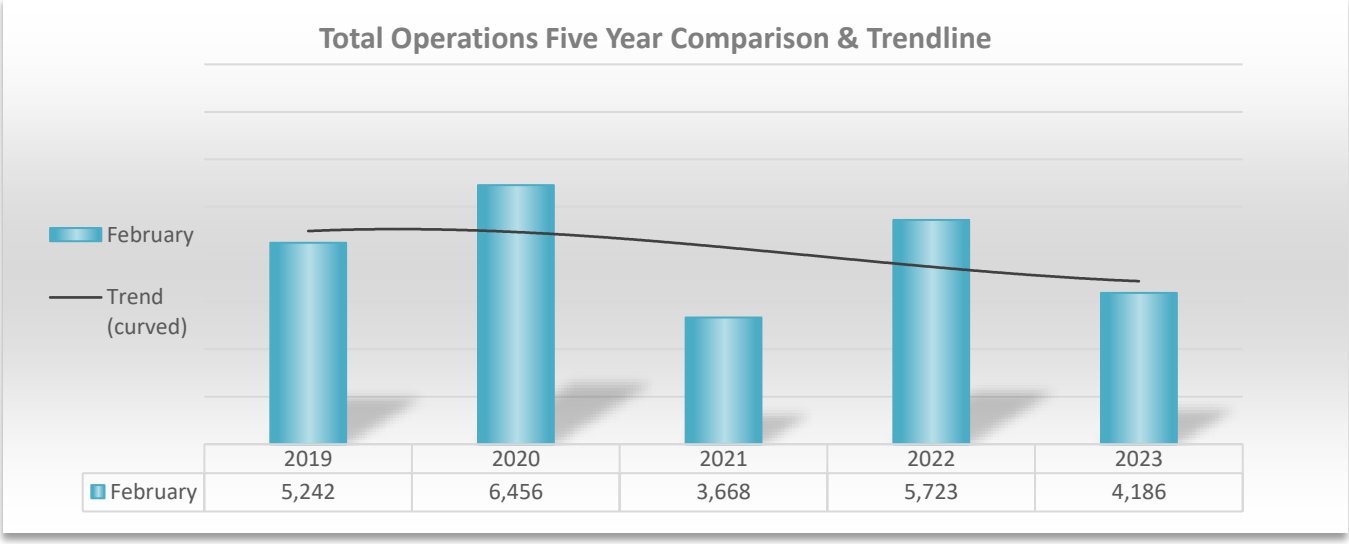
II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of February 2023 was 4,186, which represents a 27% decrease from the 5,723 operations recorded during February 2022. Approximately 14% of the operations were instrument flights (IFR transient), 34% were local flights (VFR local operations), and 52% 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.



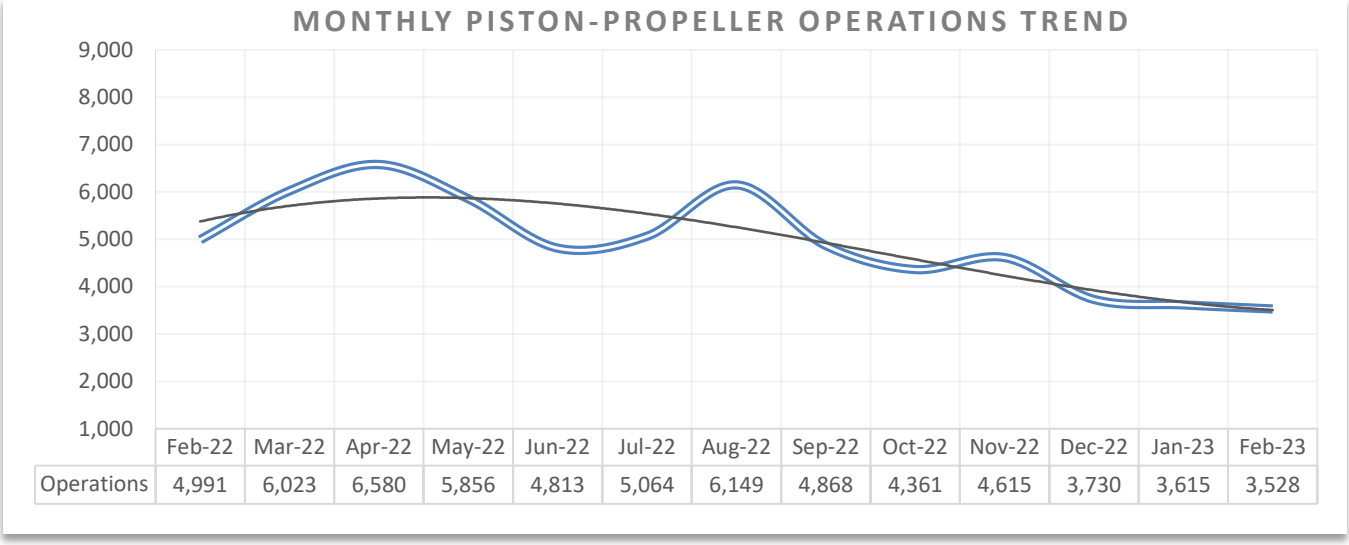
	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Operations	5,723	6,840	7,474	6,723	5,449	5,719	6,948	5,707	5,110	5,382	4,412	4,243	4,186



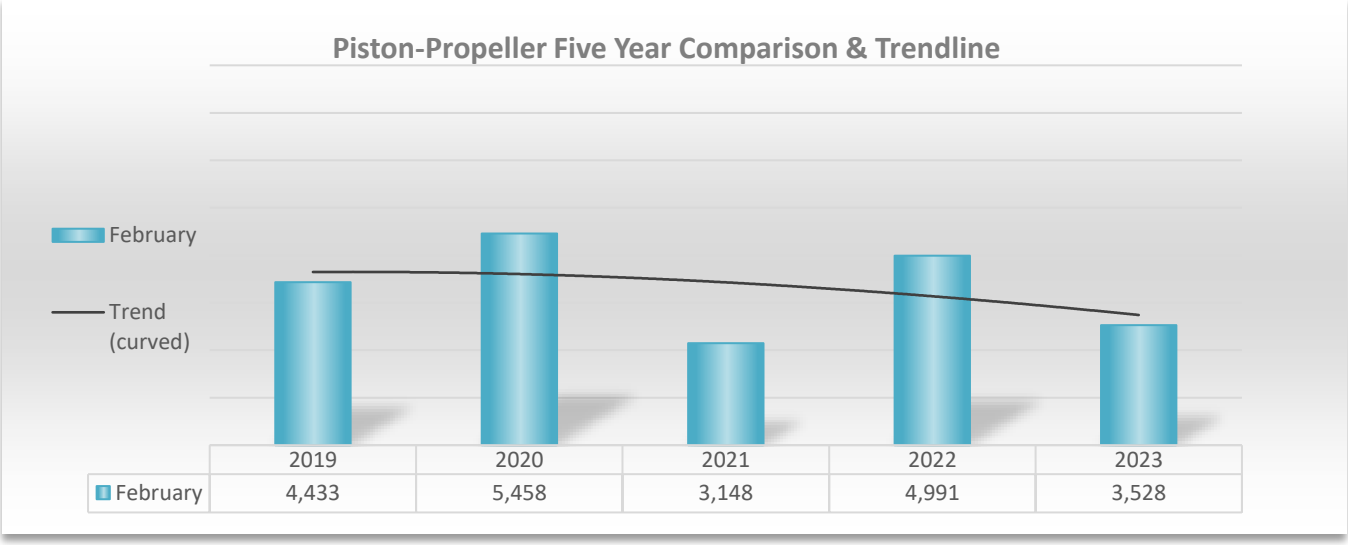
	2019	2020	2021	2022	2023
February	5,242	6,456	3,668	5,723	4,186

Piston-propeller Aircraft Operations

There were approximately 3,528 piston-propeller aircraft operations recorded, comprising approximately 84% of the total operations. Piston-propeller aircraft operations for February 2023 decreased 29% from the 4,991 piston-propeller aircraft operations recorded during February 2022.



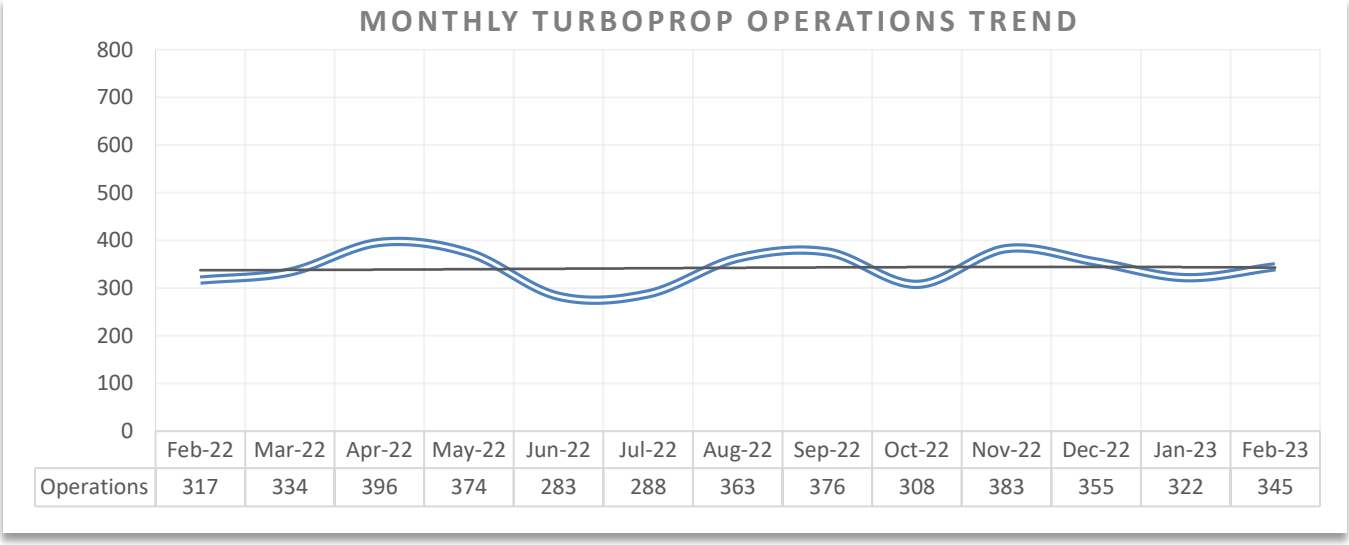
	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Operations	4,991	6,023	6,580	5,856	4,813	5,064	6,149	4,868	4,361	4,615	3,730	3,615	3,528



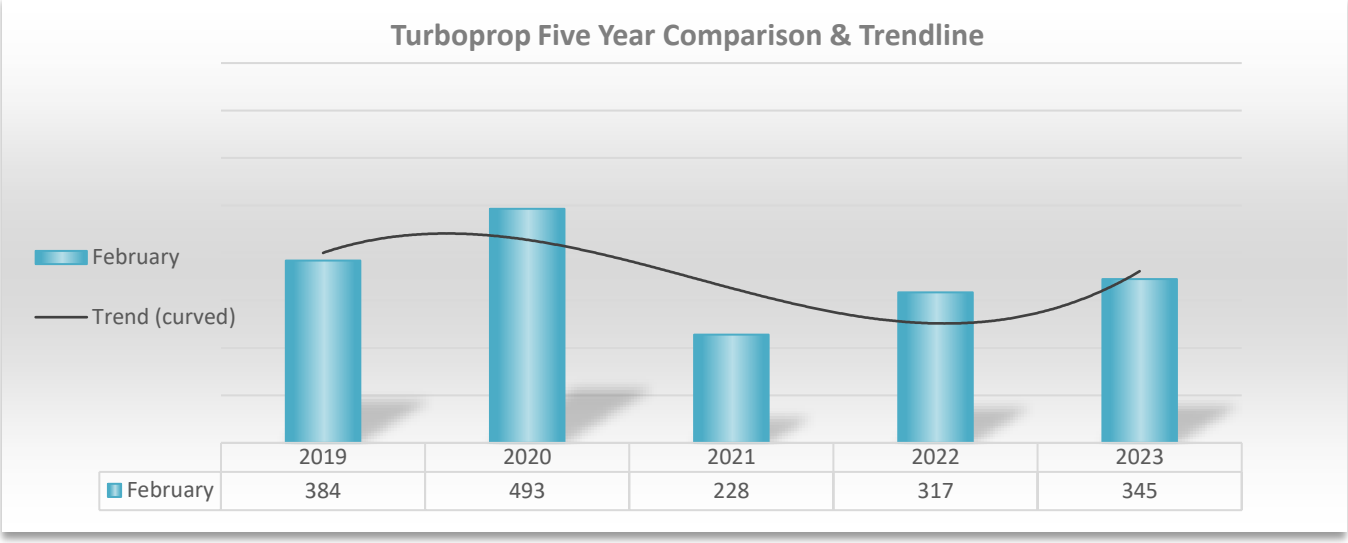
	2019	2020	2021	2022	2023
February	4,433	5,458	3,148	4,991	3,528

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 February 2023, approximately 345 were by turboprop aircraft, comprising approximately 8% of the total operations. Turboprop aircraft operations increased approximately 9% from the 317 operations recorded during February 2022.



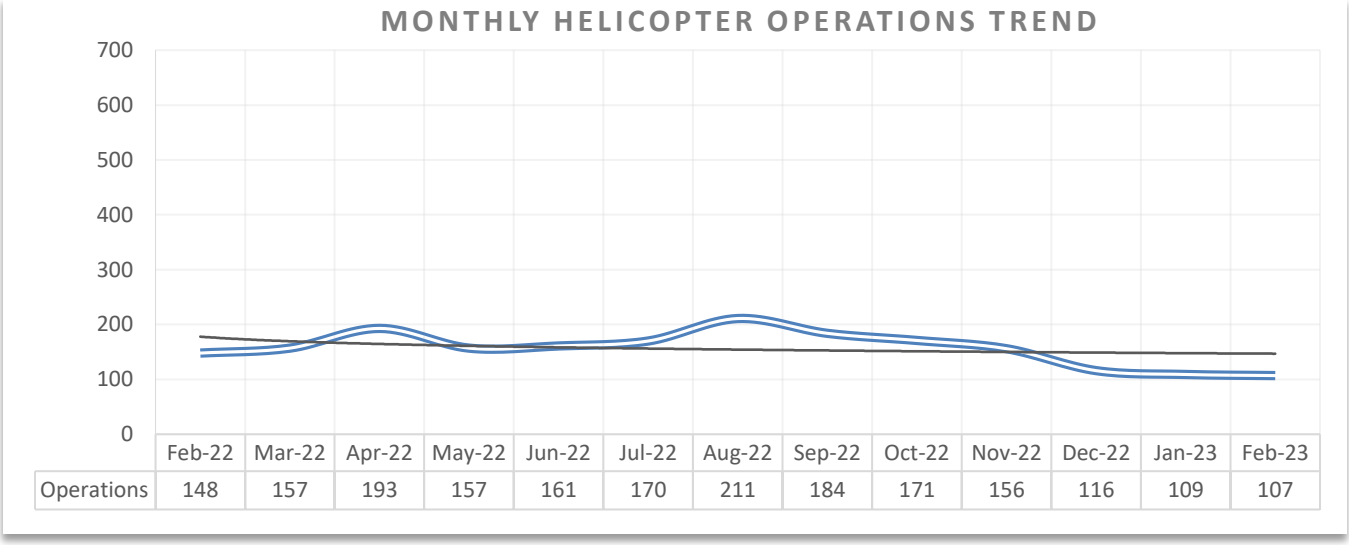
	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Operations	317	334	396	374	283	288	363	376	308	383	355	322	345



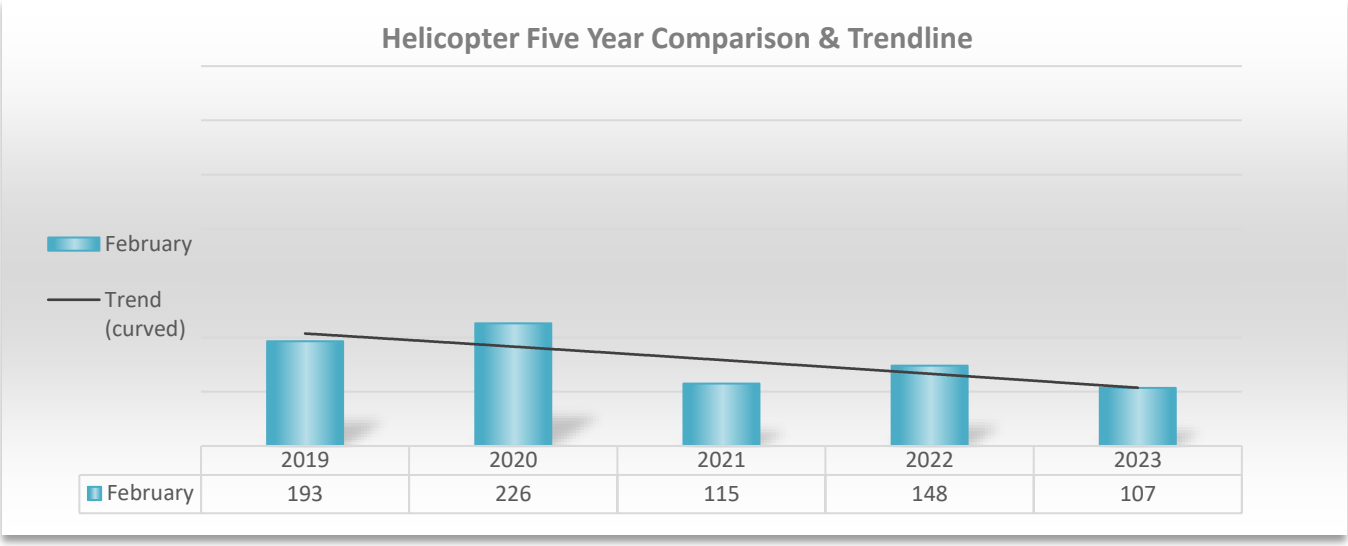
	2019	2020	2021	2022	2023
February	384	493	228	317	345

Helicopter Operations

Of the monthly aircraft operations for February 2023, approximately 107 operations are attributed to helicopters, comprising approximately 3% of the total operations. Helicopter operations during February 2023 decreased approximately 28% from the 148 helicopter operations recorded in February 2022.



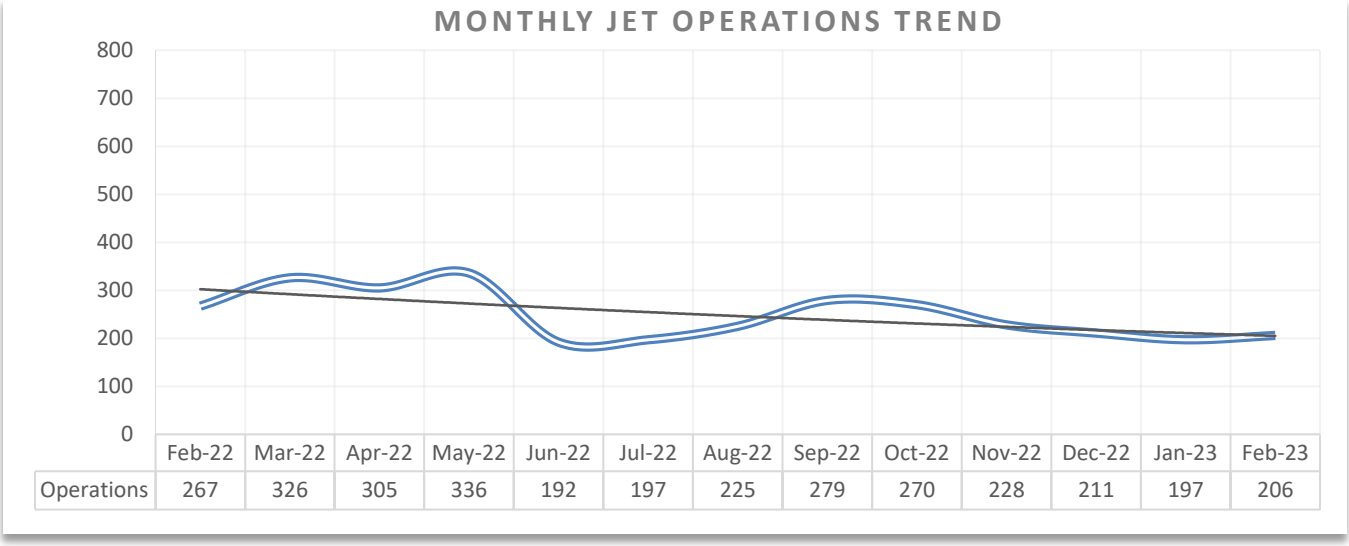
	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Operations	148	157	193	157	161	170	211	184	171	156	116	109	107



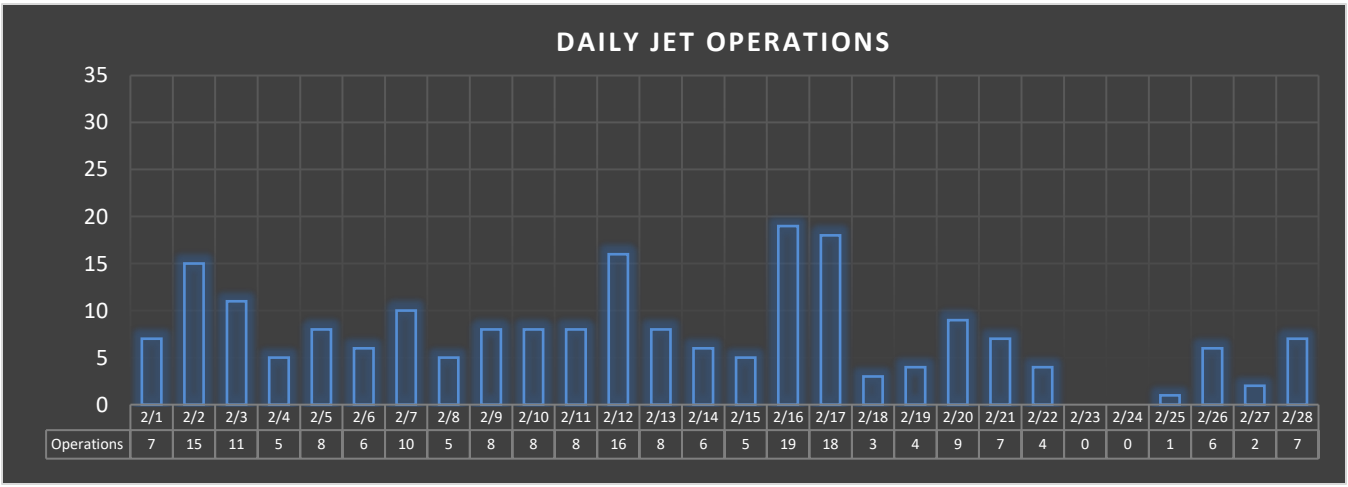
	2019	2020	2021	2022	2023
February	193	226	115	148	107

Jet Aircraft Operations

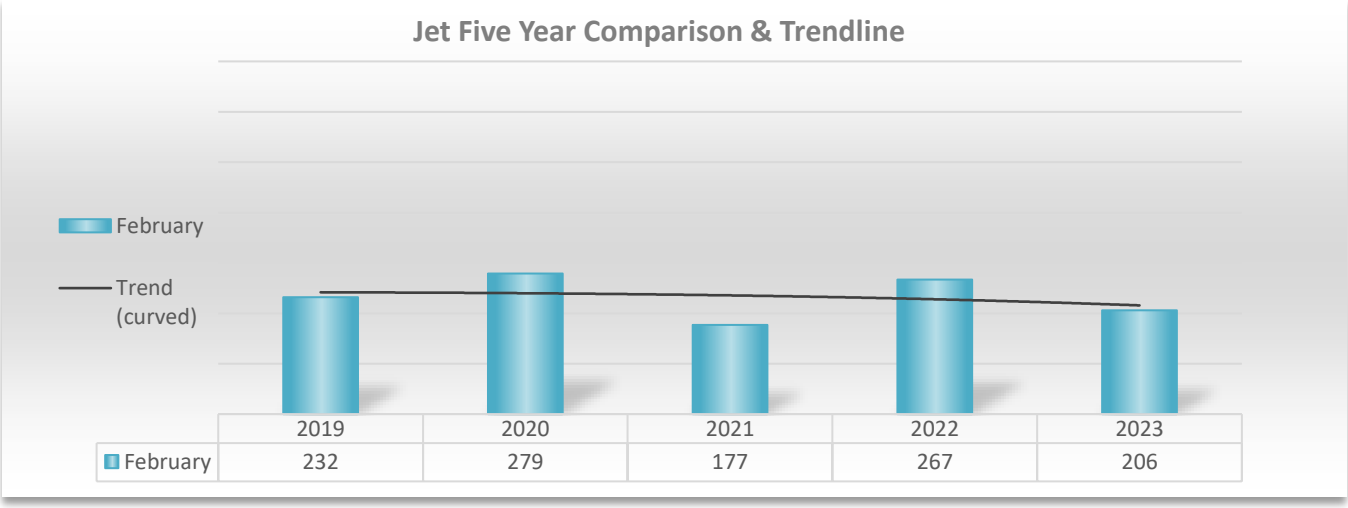
In February of 2023, there were approximately 206 jet operations recorded, encompassing approximately 5% of the total operations. Jet operations for February decreased 23% from the 267 jet aircraft operations recorded during February 2022. Daily jet operations vary significantly day over day. During the month of February 2023, 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 February 2023.



	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Operations	267	326	305	336	192	197	225	279	270	228	211	197	206



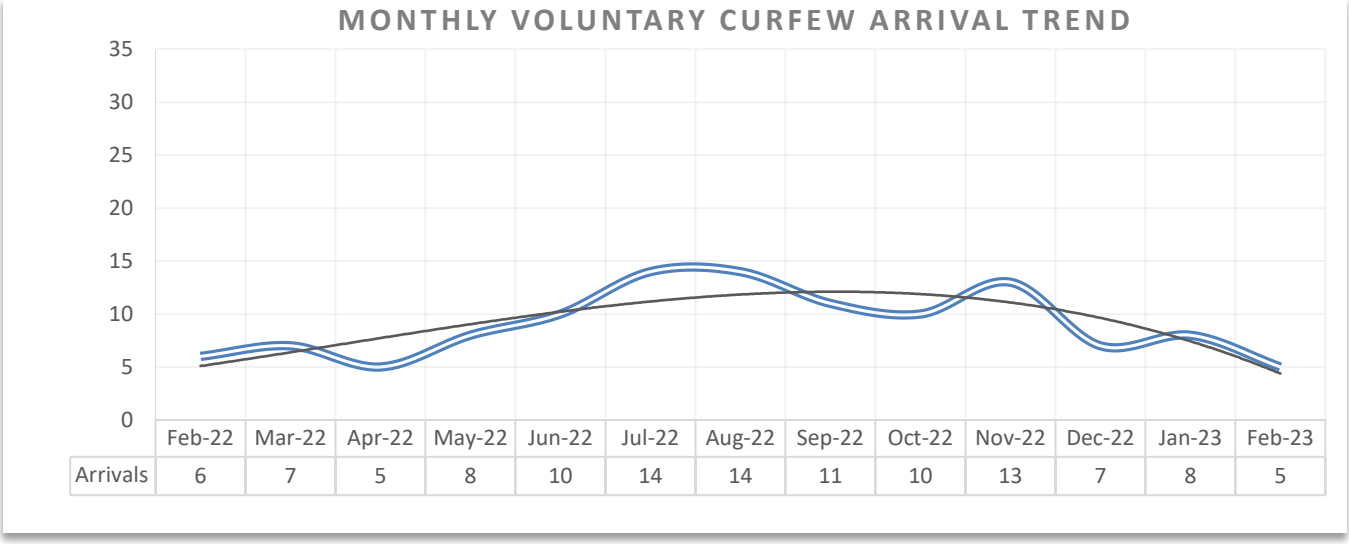
	2/1	2/2	2/3	2/4	2/5	2/6	2/7	2/8	2/9	2/10	2/11	2/12	2/13	2/14	2/15	2/16	2/17	2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27	2/28
Operations	7	15	11	5	8	6	10	5	8	8	8	16	8	6	5	19	18	3	4	9	7	4	0	0	1	6	2	7



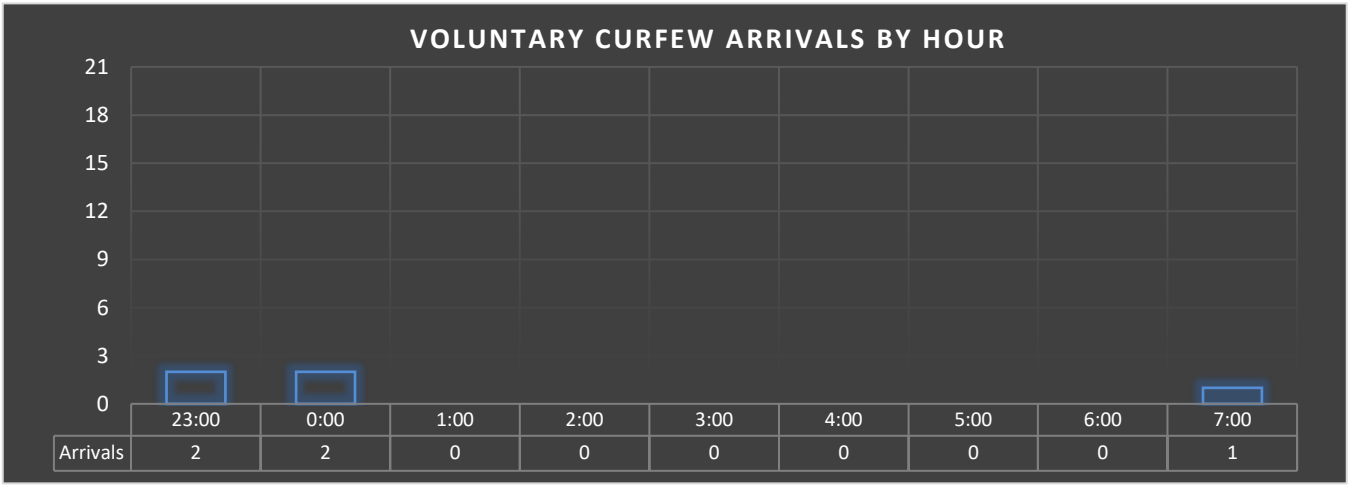
	2019	2020	2021	2022	2023
February	232	279	177	267	206

III. Voluntary Arrival Curfew

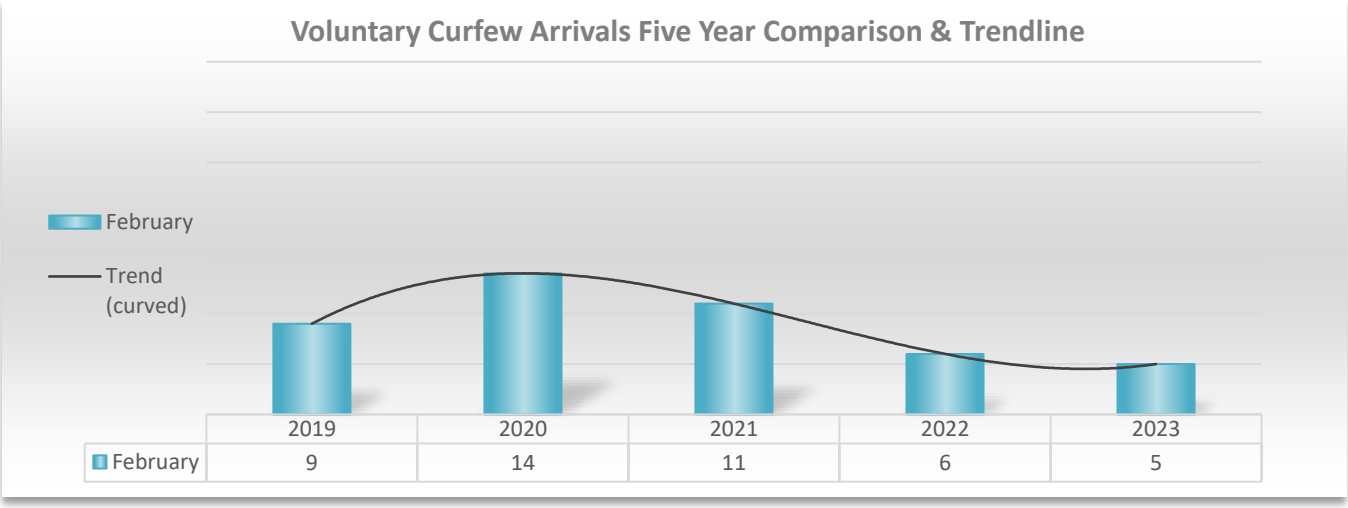
During the month of February 2023, Airport Staff logged a total of 5 aircraft arrivals during the Voluntary Arrival Curfew (VAC), which mirrors the mandatory departure curfew hours of 11:00 p.m. to 7:00 a.m. on weekdays, and 11:00 p.m. to 8:00 a.m. on weekends. The graph below depicts the number of arrivals for each VAC hour during the month of February 2023. For a listing of aircraft arrivals during the night hours, see Attachment B.



	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Arrivals	6	7	5	8	10	14	14	11	10	13	7	8	5



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



	2019	2020	2021	2022	2023
February	9	14	11	6	5

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 February 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 February 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.

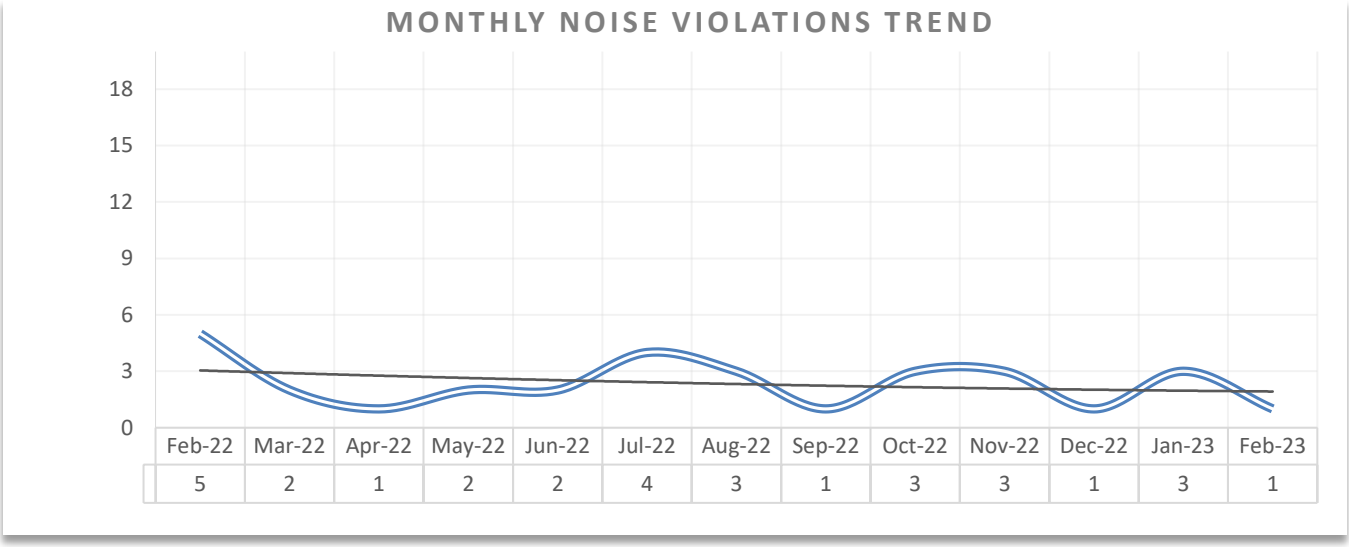
VII. Noise Violations

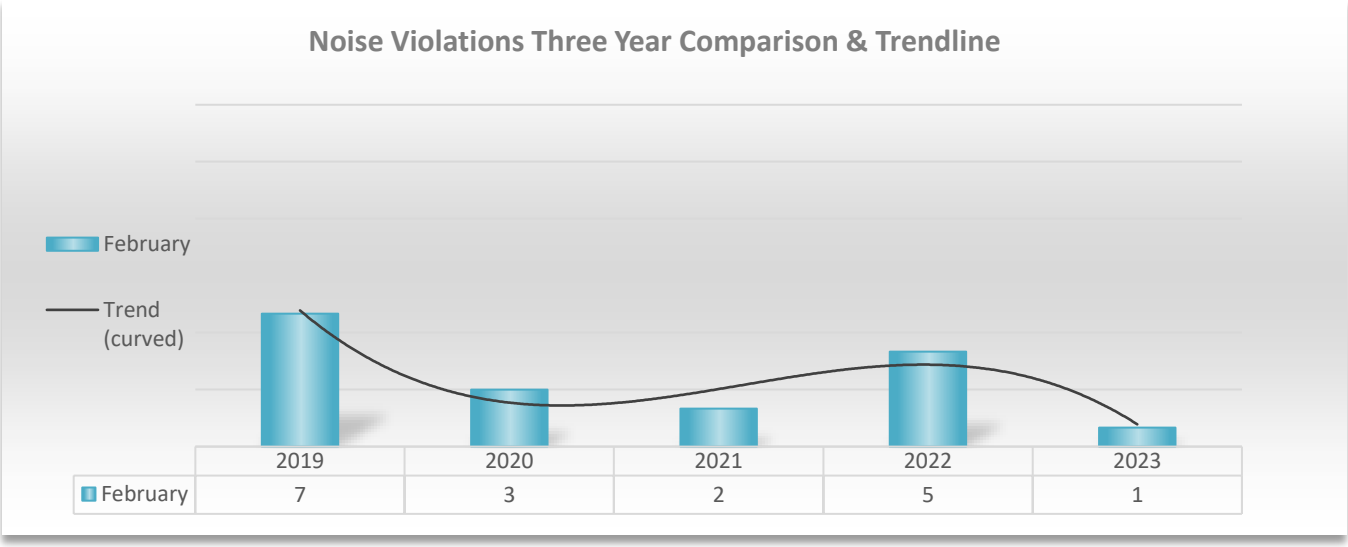
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing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

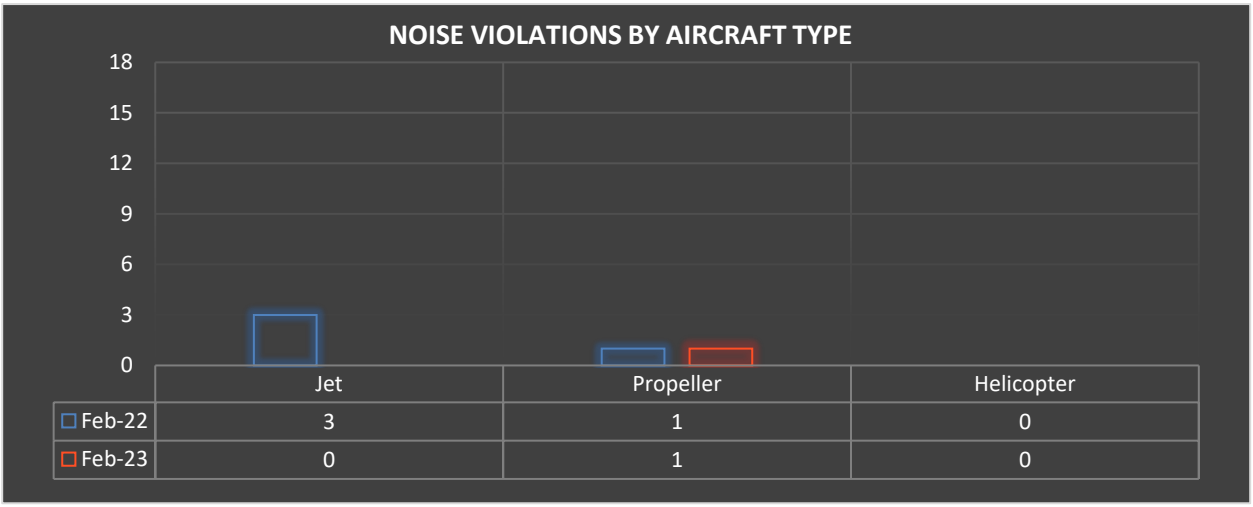
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of February 2023, there was 1 noise violation recorded, an 80% decrease from the 5 noise violations recorded during February 2022. A summary of noise violations for February 2023 is listed on attachment D. Of the 4,186 aircraft operations recorded during the month of February 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

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	0	0	0	0	0	0	**0**	**0%**
Propeller	1	0	0	0	0	0	0	**1**	**100%**
Helicopter	0	0	0	0	0	0	0	**0**	**0%**
Total:	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	
%	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**		**100%**

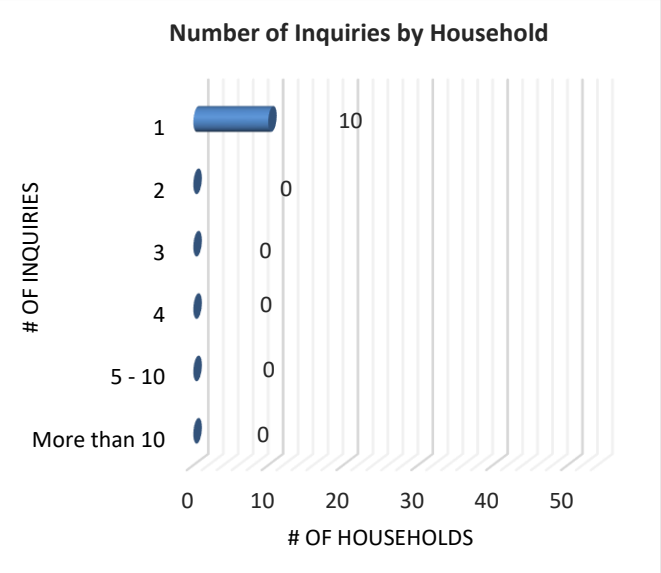

MONTHLY NOISE VIOLATIONS TREND
18
15
12
9
6
3
0
Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23
5 2 1 2 2 4 3 1 3 3 1 3 1

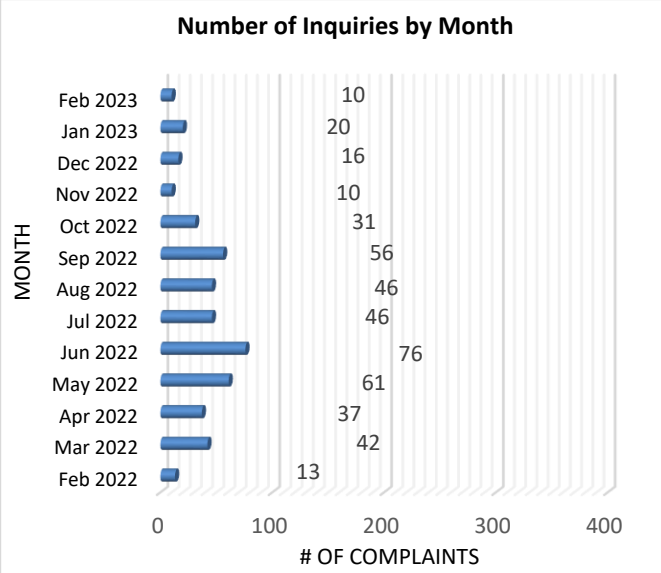

Noise Violations Three Year Comparison & Trendline
February
Trend (curved)
2019 2020 2021 2022 2023
February 7 3 2 5 1

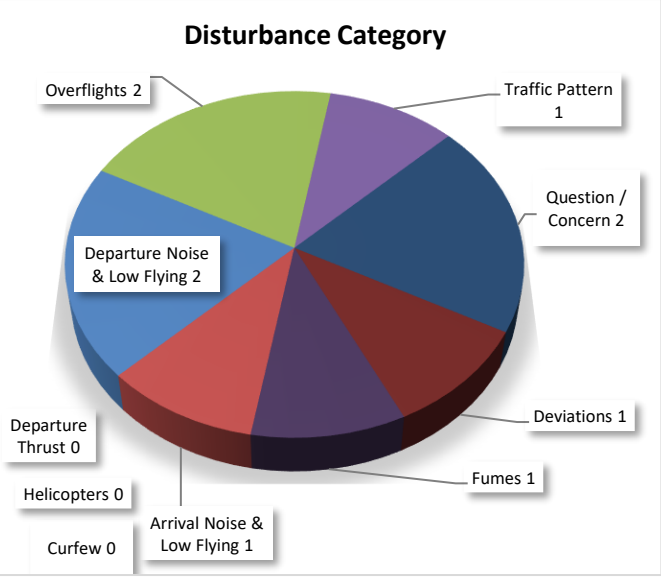

NOISE VIOLATIONS BY AIRCRAFT TYPE
18
15
12
9
6
3
0
Jet Propeller Helicopter
Feb-22 3 1 0
Feb-23 0 1 0

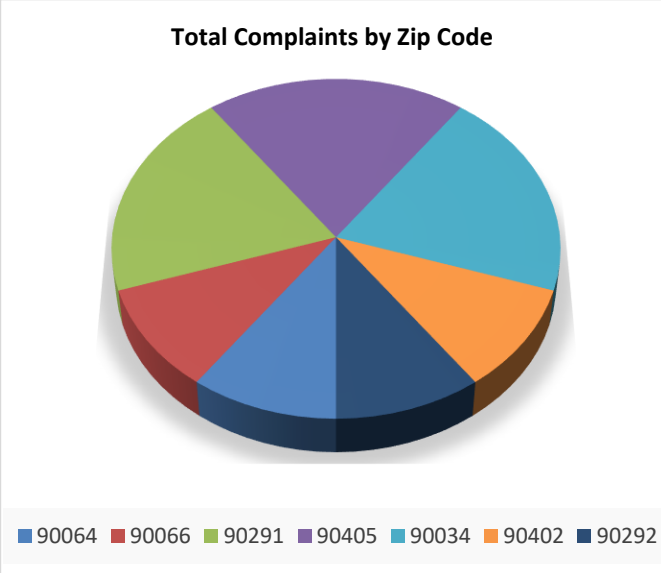
VIII. Aircraft Related Inquiries

During the month of February 2023, 10 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 February 2023.









ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	2 / 23	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)

[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	3	138	0	141	111	0	111	252	252
2	0	14	154	0	168	93	0	93	261	513
3	0	8	149	0	157	100	0	100	257	770
4	0	5	145	0	150	65	0	65	215	985
5	0	6	71	0	77	32	0	32	109	1094
6	0	9	85	0	94	2	0	2	96	1190
7	0	8	115	0	123	63	0	63	186	1376
8	0	15	99	0	114	86	0	86	200	1576
9	0	14	103	0	117	42	0	42	159	1735
10	0	11	113	0	124	82	0	82	206	1941
11	0	5	93	0	98	22	0	22	120	2061
12	0	26	98	0	124	46	0	46	170	2231
13	0	11	91	0	102	44	0	44	146	2377
14	0	8	51	0	59	79	0	79	138	2515
15	0	13	73	0	86	32	0	32	118	2633
16	0	13	149	0	162	84	0	84	246	2879
17	0	22	142	0	164	80	0	80	244	3123
18	0	2	141	0	143	60	0	60	203	3326
19	0	3	117	0	120	26	0	26	146	3472
20	0	12	110	0	122	91	0	91	213	3685
21	0	8	67	0	75	20	0	20	95	3780
22	0	6	27	0	33	0	0	0	33	3813
23	0	0	18	0	18	5	0	5	23	3836
24	0	0	4	0	4	0	0	0	4	3840
25	0	1	4	0	5	0	0	0	5	3845
26	0	4	106	0	110	125	0	125	235	4080
27	0	1	21	0	22	14	0	14	36	4116
28	0	6	33	0	39	31	0	31	70	4186
29	0				0		0	0	0	4186
30	0				0		0	0	0	4186
31	0				0		0	0	0	4186
TOTAL	0	234	2517	0	2751	1435	0	1435	4186	

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

ATTACHMENT A

THIS SIDE *FOR USE BY VFR TOWERS ONLY* (ALL Approach Control Terminals MUST use FAA Form 7230-26)	*ALL VFR Towers recording* *Instrument Operations* *on this side* *MUST COMPLETE* →	/02 (1-2) (3-4) MO. YR.	SMO (5-9) LOC ID	ADP CONTROL 10-4

INSTRUMENT OPERATIONS							REMARKS
DAY	**AC**	**AT**	**GA**	**MILITARY**		**TOTAL (10 - E) (14 - 1)**	
1	0	3	17	0	(16-19)	20	
2	0	12	18	0	(20-23)	30	
3	0	7	16	0	(24-27)	23	
4	0	3	15	0	(28-31)	18	
5	0	4	22	0	(32-35)	26	
6	0	0	8	0	(36-39)	8	
7	0	8	24	0	(40-43)	32	
8	0	8	6	0	(44-47)	14	
9	0	5	17	0	(48-51)	22	
10	0	7	12	0	(52-55)	19	
11	0	5	26	0	(56-59)	31	
12	0	18	19	0	(60-63)	37	
13	0	9	18	0	(64-67)	27	
14	0	4	12	0	(68-71)	16	
15	0	4	14	0	(72-75)	18	
16	0	9	35	0	(76-79)	44	
						(14-2)	
17	0	13	15	0	(16-19)	28	
18	0	2	23	0	(20-23)	25	
19	0	1	12	0	(24-27)	13	
20	0	8	18	0	(28-31)	26	
21	0	6	27	0	(32-35)	33	
22	0	3	10	0	(36-39)	13	
23	0	0	9	0	(40-43)	9	
24	0	0	4	0	(44-47)	4	
25	0	1	4	0	(48-51)	5	
26	0	4	12	0	(52-55)	16	
27	0	1	16	0	(56-59)	17	
28	0	4	11	0	(60-63)	15	
29	0	0	0	0	(64-67)	0	
30	0	0	0	0	(68-71)	0	
31	0	0	0	0	(72-75)	0	
TOTAL	0	149	440	0		589	
	(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
2/1/23	23:30	N353MV	C172	21	DNR	2	IGAL ZUBERY	P
2/12/23	7:45	N505DE	FA50	21	84.8	2	MARINELLI PAUL T TRUSTEE	J
2/13/23	0:16	N353DS	BE58	21	83.9	2	DAVID NOSRATI	P
2/16/23	0:11	N974TA	C172	21	DNR	2	SKY PEAK AVIATION LLC	P
2/18/23	23:30	N58144	M20J	3	DNR	2	DANIEL A LOW	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

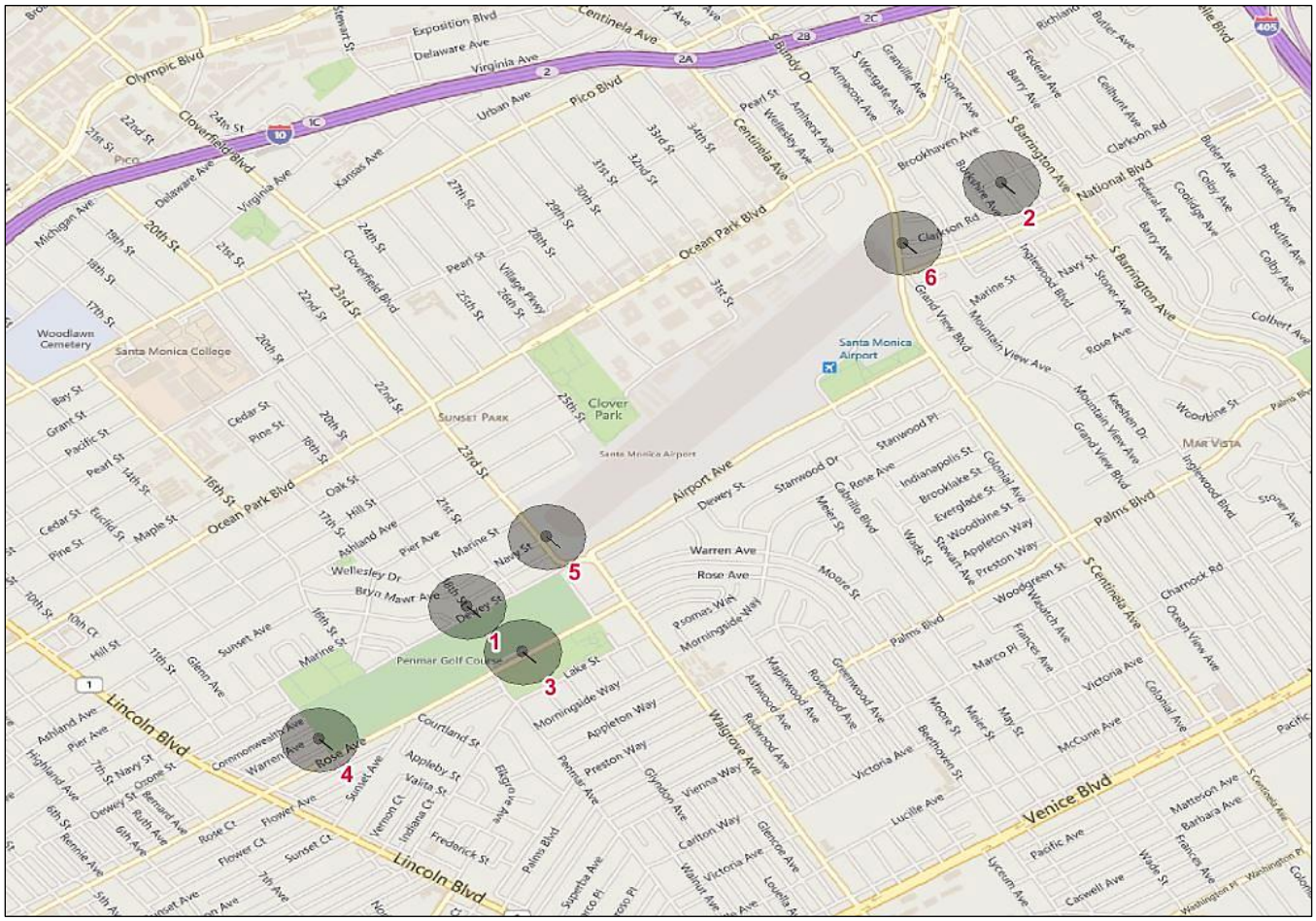
DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
2/9/23	9:29	N353DS	BE58	21	95.4	1	DAVID NOSRATI	DISMISSED	P

Unenforceable Noise Events

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	REASON
2/19/23	15:18	N355JS	S76	21	95.9	2	MINERD HOLDINGS LLC	EMERGENCY LANDING

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.

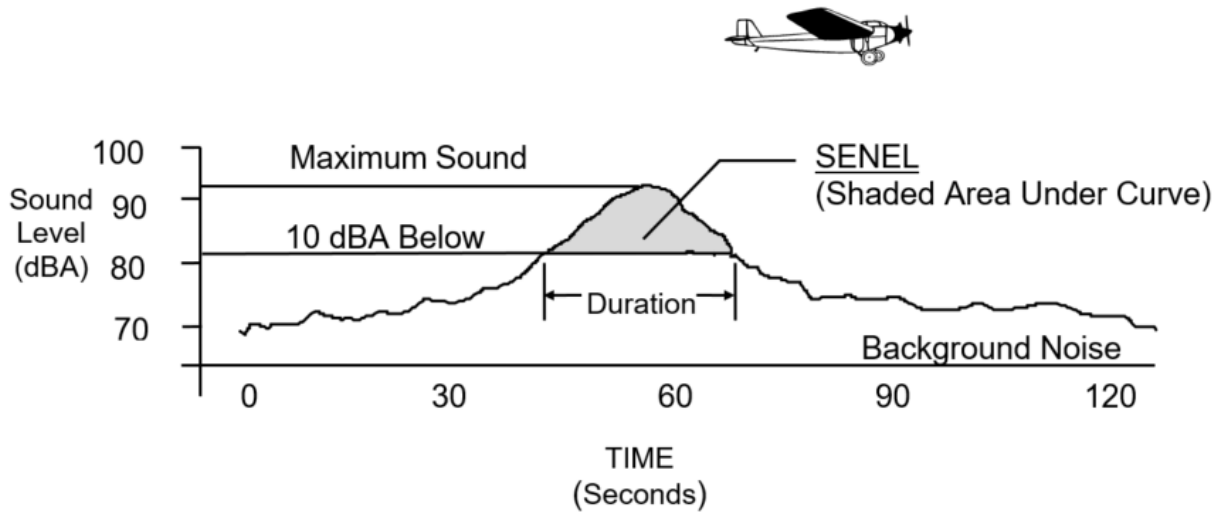
ATTACHMENT F
(Single Event Noise Exposure Level)

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.