Santa Monica Airport
Monthly Operations Report

April 2021

Report prepared by:

Stelios Makrides
Airport Director
stelios.makrides@smgov.net
310-458-8591

Diana Hernandez
Airport Operations Administrator
diana.hernandez@smgov.net
310-458-8692

Daniel Quezada
Airport Operations Analyst
daniel.quezada@smgov.net
310-458-8692

Santa Monica Airport
3223 Donald Douglas Loop South
Santa Monica, CA 90405
airport@smgov.net • www.santamonicaairport.org

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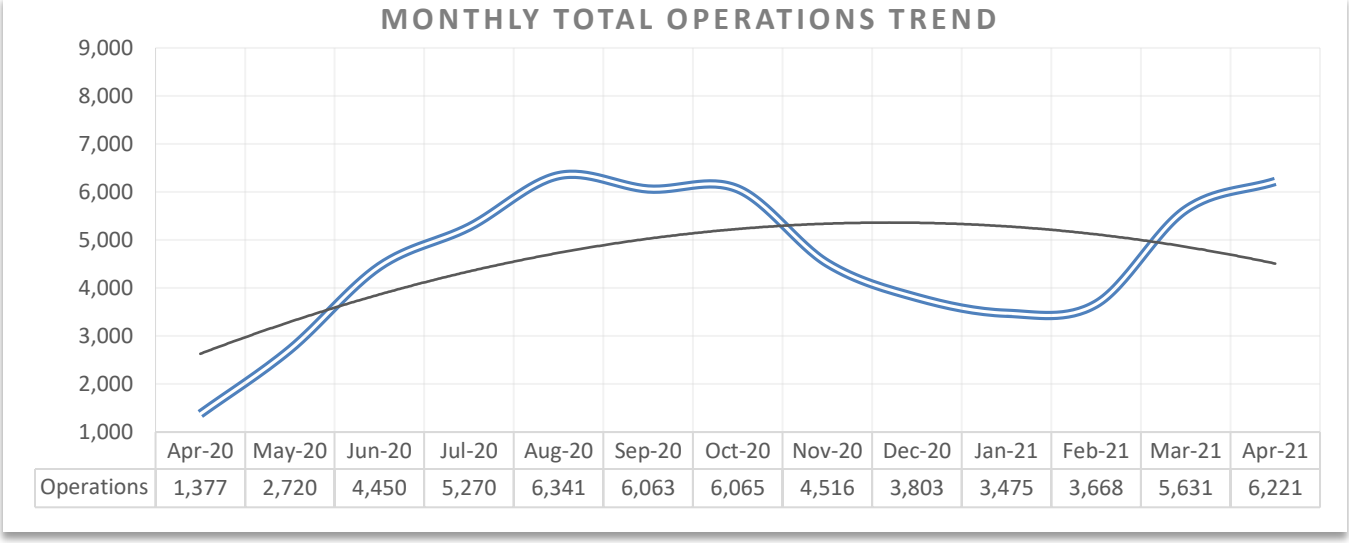
I. Introduction

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 April 2021.

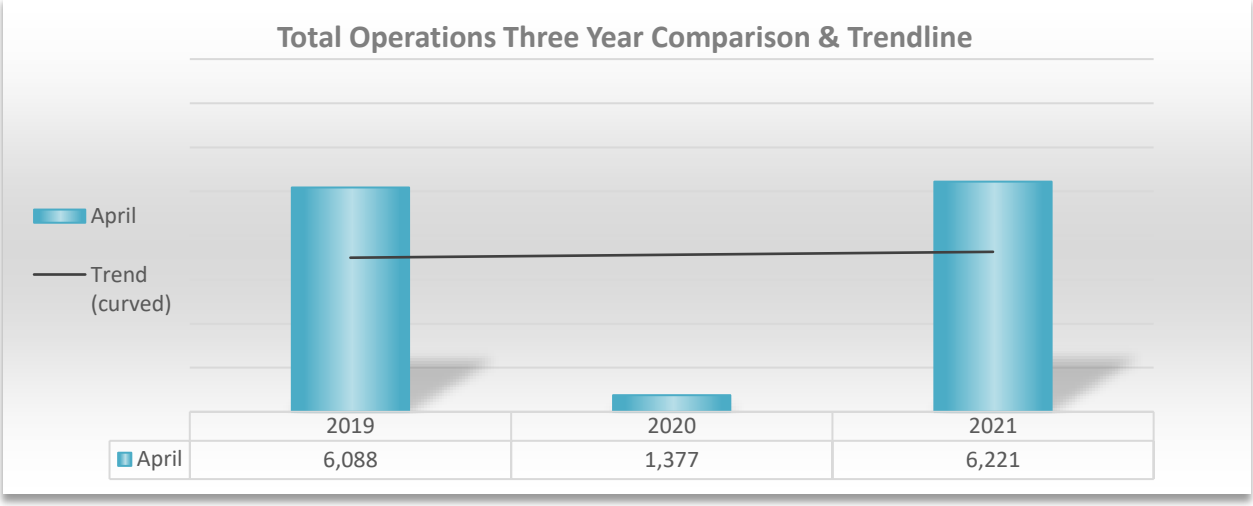
II. Aircraft Operations Data

The total number of aircraft operations recorded during the month of April 2021 was 6,221 which represents a 352% increase from the 1,377 operations recorded during April 2020. Approximately 14% of the operations were instrument flights (IFR transient), 42% were local flights (VFR local operations), and 44% were itinerant flights (VFR transient). The Covid-19 Safer at Home Health Order negatively affected operations figures in the Spring of 2020.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.



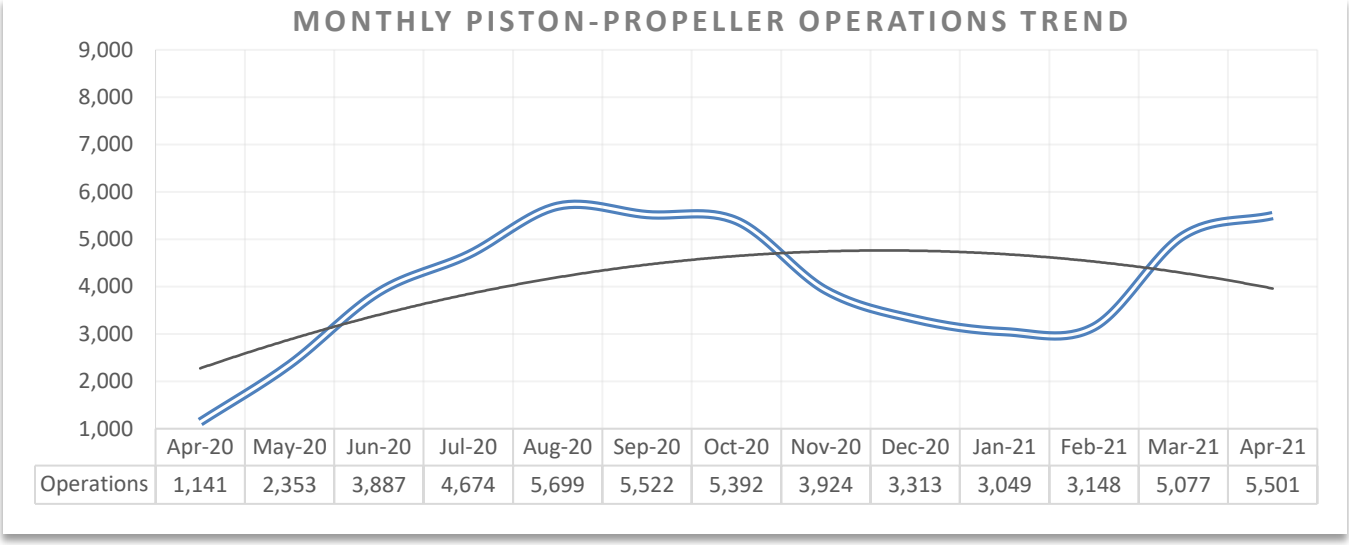
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Operations	1,377	2,720	4,450	5,270	6,341	6,063	6,065	4,516	3,803	3,475	3,668	5,631	6,221



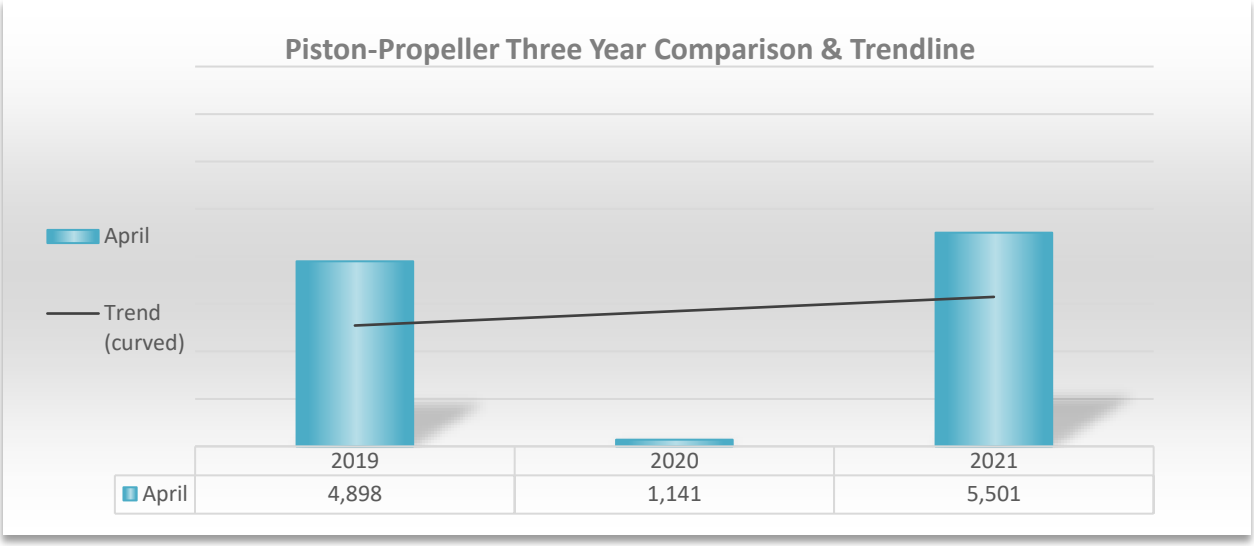
	2019	2020	2021
April	6,088	1,377	6,221

Piston-propeller Aircraft Operations

There were approximately 5,501 piston-propeller aircraft operations recorded, comprising approximately 88% of the total operations. Piston-propeller aircraft operations for April 2021 increased 382% from the 1,141 piston-propeller aircraft operations recorded during April 2020.



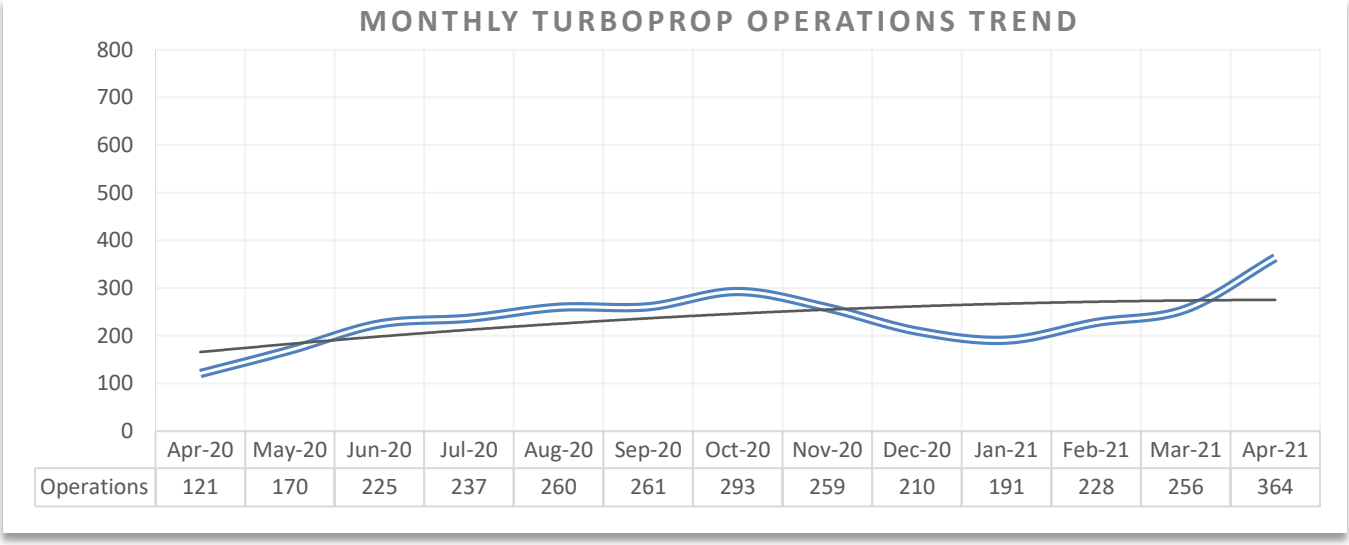
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Operations	1,141	2,353	3,887	4,674	5,699	5,522	5,392	3,924	3,313	3,049	3,148	5,077	5,501



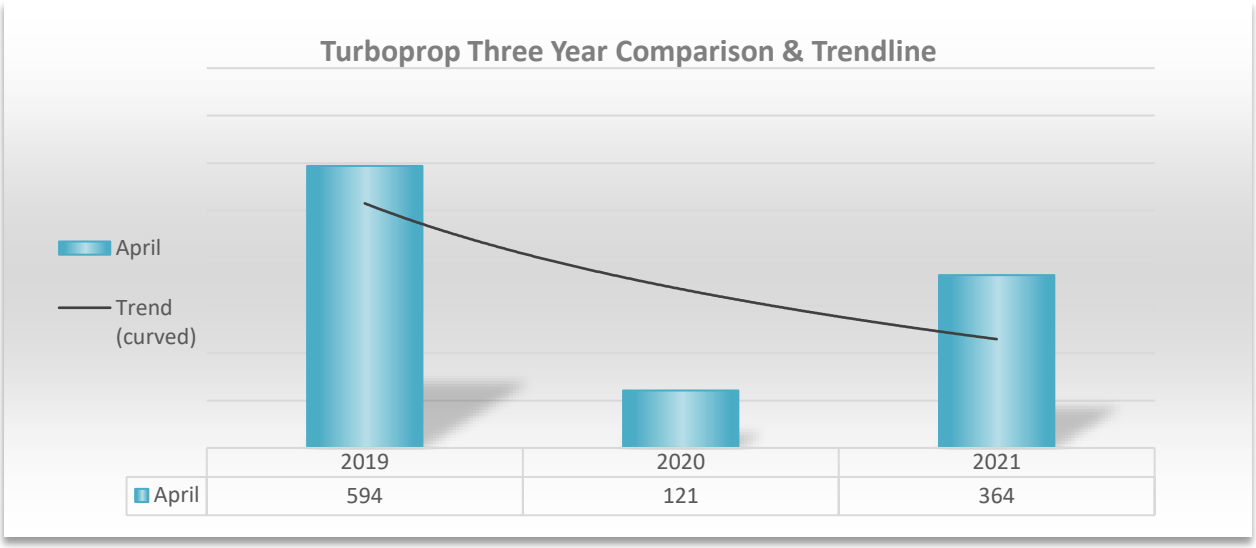
	2019	2020	2021
April	4,898	1,141	5,501

Turboprop Operations

The difference between a turboprop and piston-propeller aircraft is simply the type of engine. 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 April 2021, approximately 364 were by turboprop aircraft, comprising approximately 6% of the total operations. Turboprop aircraft operations increased approximately 201% from the 121 operations recorded during April 2020.



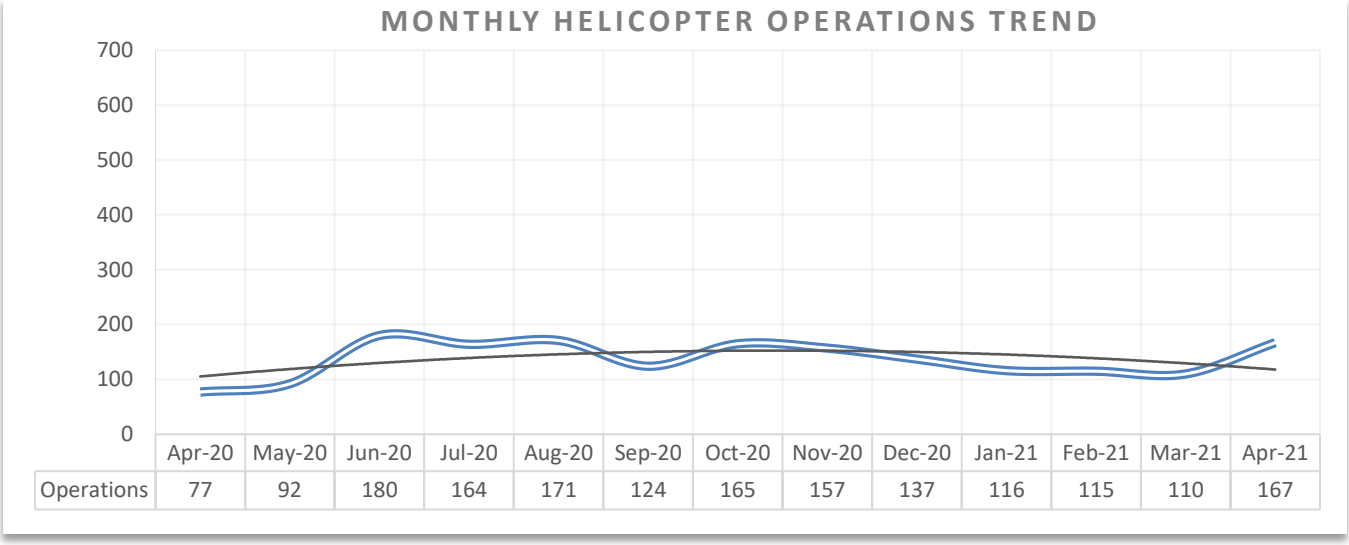
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Operations	121	170	225	237	260	261	293	259	210	191	228	256	364



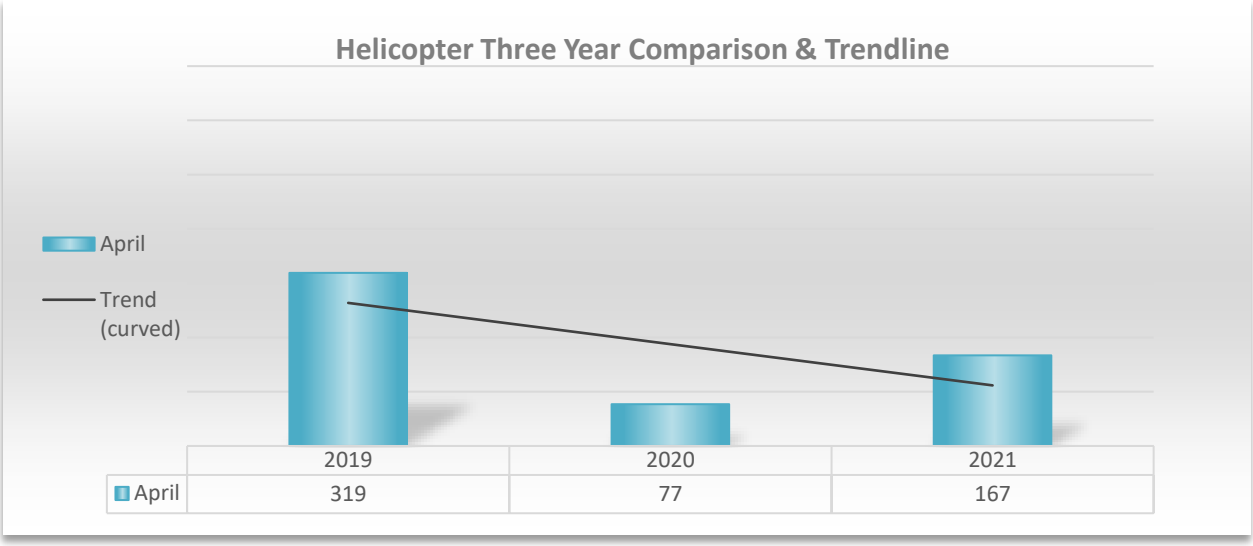
	2019	2020	2021
April	594	121	364

Helicopter Operations

Of the monthly aircraft operations for April 2021, approximately 167 operations were from helicopters, comprising approximately 3% of the total operations. Helicopter operations for April 2021 increased 117% from the 77 helicopter operations recorded in April 2020.



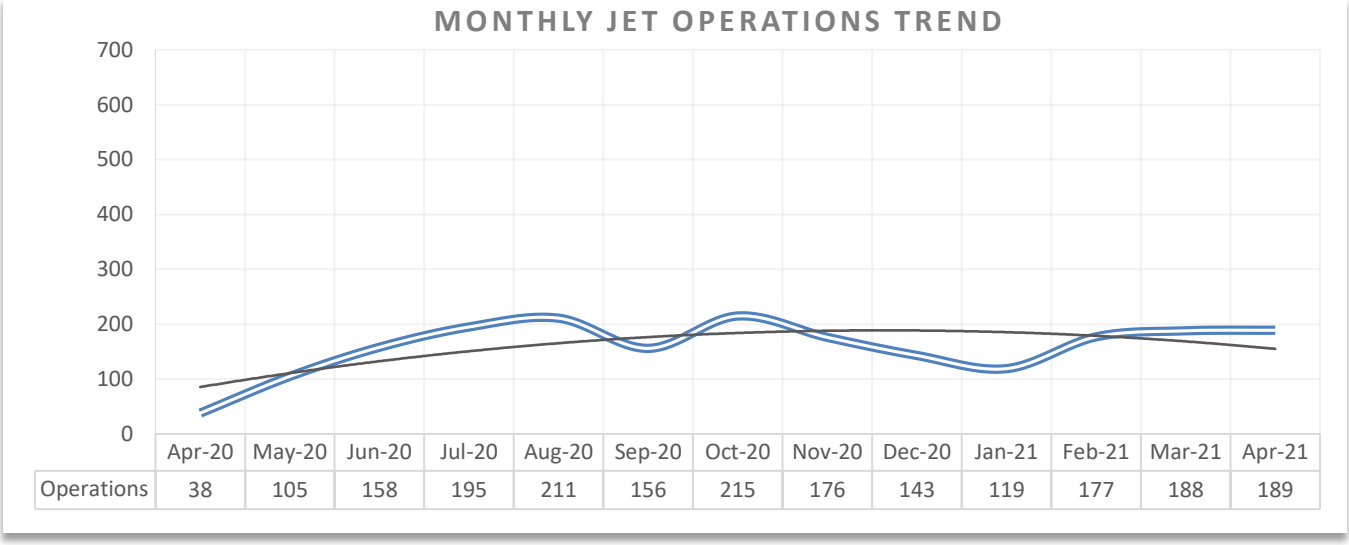
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Operations	77	92	180	164	171	124	165	157	137	116	115	110	167



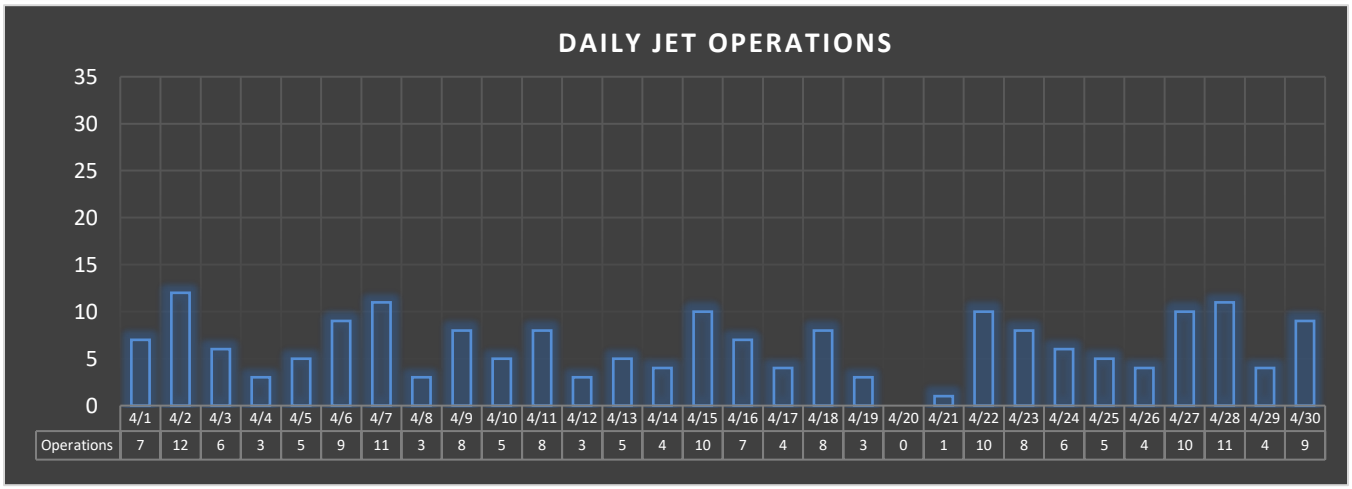
	2019	2020	2021
April	319	77	167

Jet Aircraft Operations

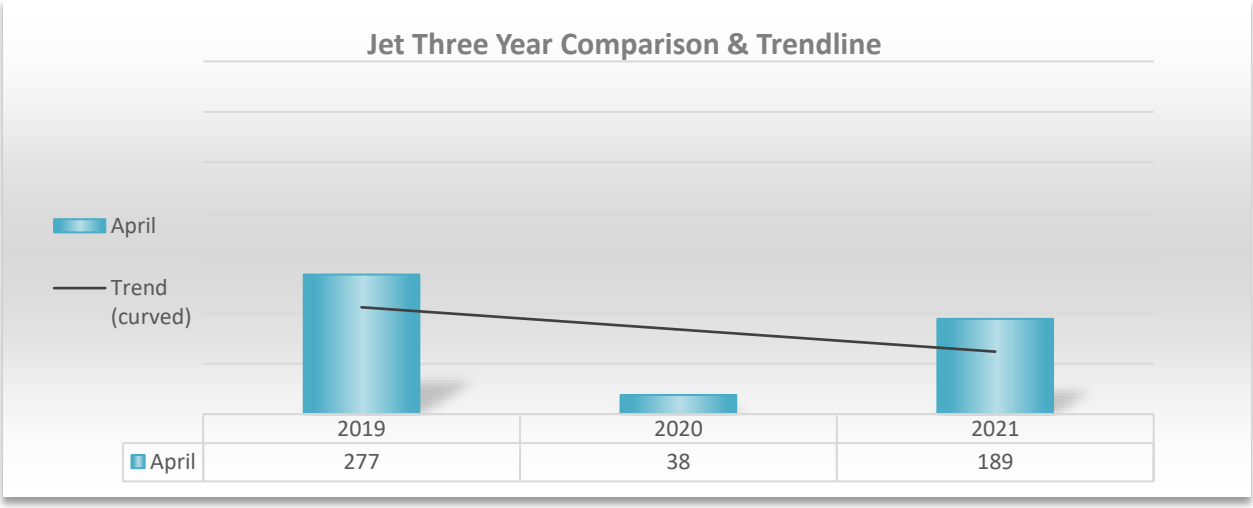
In April of 2021, there were approximately 189 jet operations, comprising approximately 3% of the total operations. Jet operations for April increased 397% from the 38 jet aircraft operations recorded during April 2020. Daily jet operations significantly vary day over day. During the month of April 2021, jet aircraft averaged 6 operations per day. The bar graph below represents the daily operations for jet engine driven aircraft for the month of April 2021.



	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Operations	38	105	158	195	211	156	215	176	143	119	177	188	189



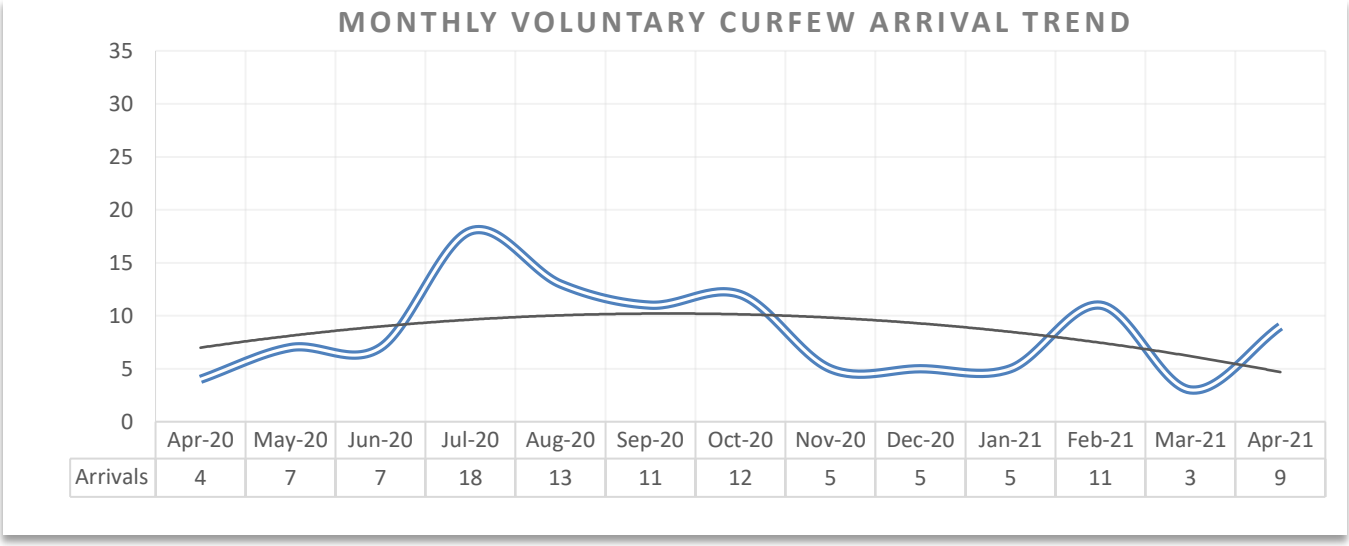
	4/1	4/2	4/3	4/4	4/5	4/6	4/7	4/8	4/9	4/10	4/11	4/12	4/13	4/14	4/15	4/16	4/17	4/18	4/19	4/20	4/21	4/22	4/23	4/24	4/25	4/26	4/27	4/28	4/29	4/30
Operations	7	12	6	3	5	9	11	3	8	5	8	3	5	4	10	7	4	8	3	0	1	10	8	6	5	4	10	11	4	9



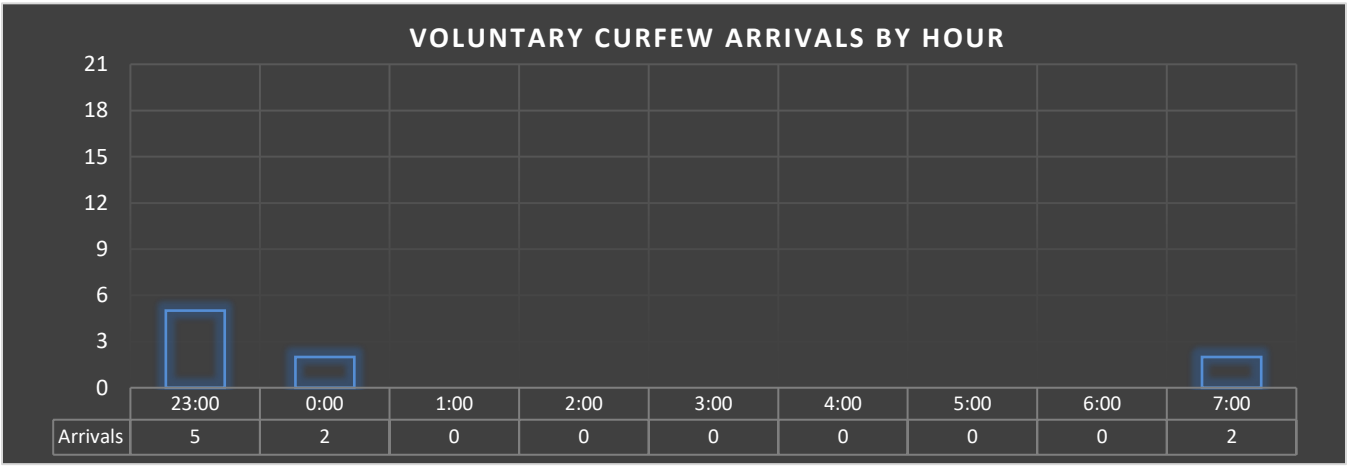
	2019	2020	2021
April	277	38	189

III. Voluntary Arrival Curfew

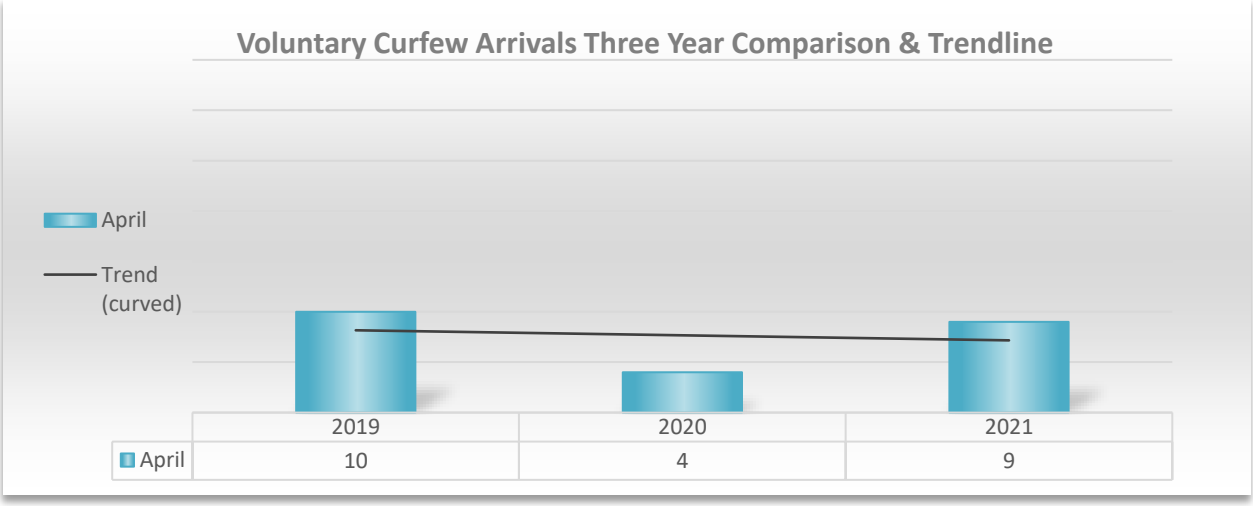
During the month of April 2021, Airport Staff logged a total of 9 aircraft arrivals during the Voluntary Arrival Curfew (VAC), which mirrors the mandatory departure curfew hours of 11:00 p.m. to 7:00 a.m. on weekdays, and 11:00 p.m. to 8:00 a.m. on weekends. The graph below depicts the number of arrivals for each VAC hour during the month of April 2021. For a listing of aircraft arrivals during the night hours, see Attachment B.



	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Arrivals	4	7	7	18	13	11	12	5	5	5	11	3	9



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



	2019	2020	2021
April	10	4	9

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 April 2021, 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 April 2021 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.

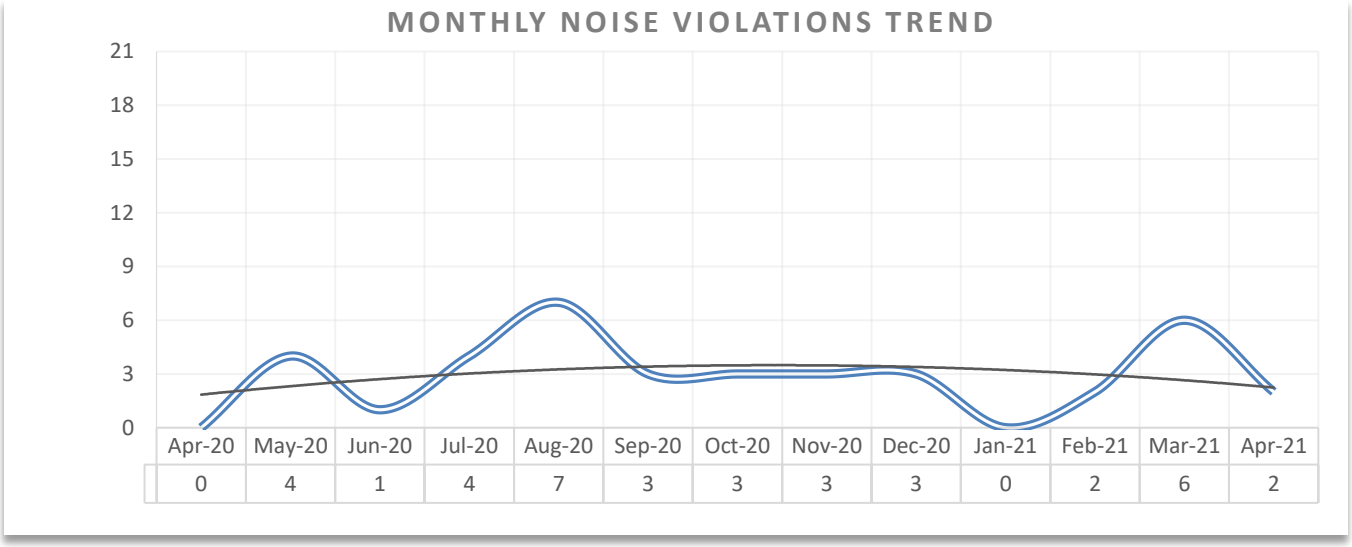
VII. Noise Violations

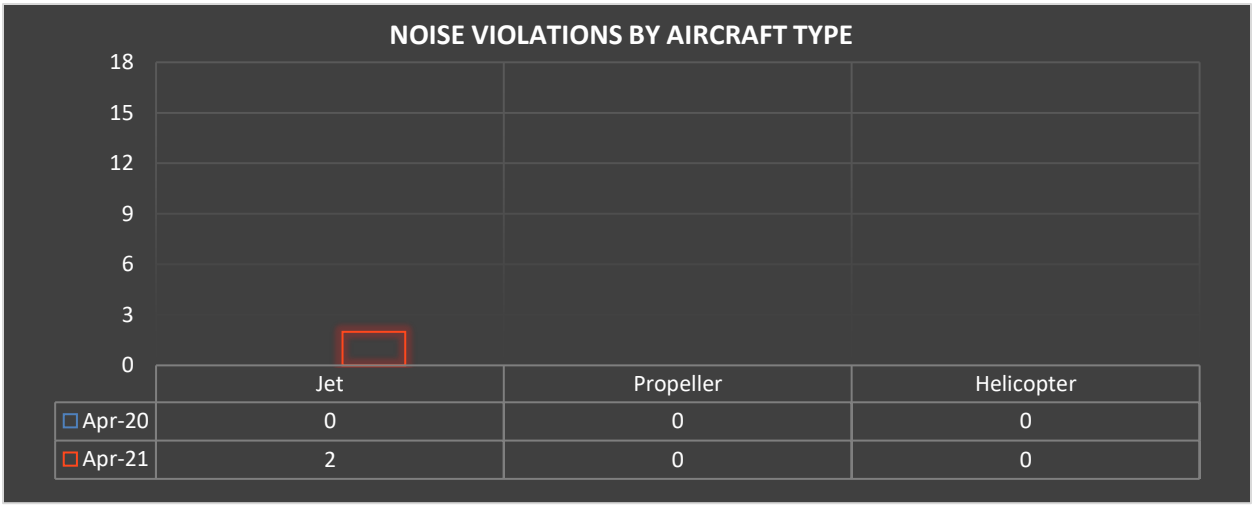
Santa Monica Airport enforces a maximum noise limit as approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states that "No aircraft shall exceed a Single Event Noise Exposure Level (SENEL) of 95.0 dBA as measured at the Airport Noise Measuring Stations existing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

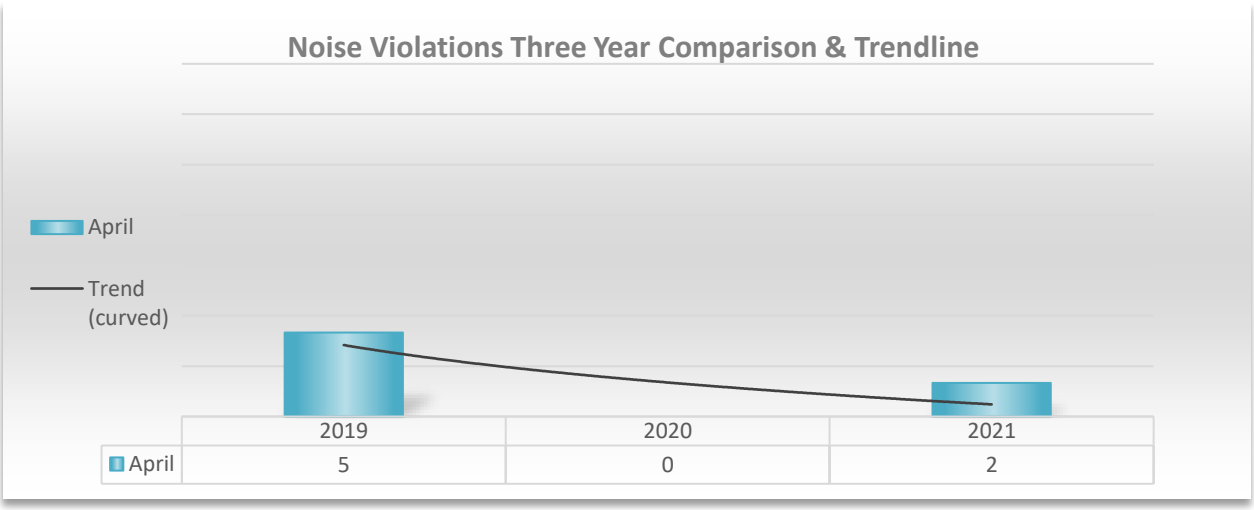
A violation occurs when an aircraft exceeds 95.0 dBA SENEL. During the month of April 2021, there were 2 noise violations recorded which represent an increase from the 0 noise violations recorded during April 2020. A summary of noise violations for April 2021 is listed on attachment D. Of the 6,221 aircraft operations recorded during the month of April 2021, 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

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**	
%	**50%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**		**100%**


MONTHLY NOISE VIOLATIONS TREND
21
18
15
12
9
6
3
0
Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Apr-21
0 4 1 4 7 3 3 3 3 0 2 6 2

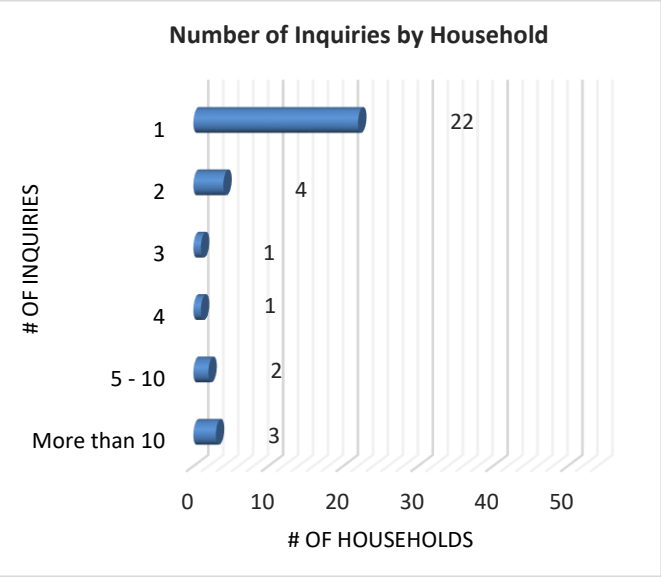

NOISE VIOLATIONS BY AIRCRAFT TYPE
18
15
12
9
6
3
0
Jet Propeller Helicopter
Apr-20 0 0 0
Apr-21 2 0 0

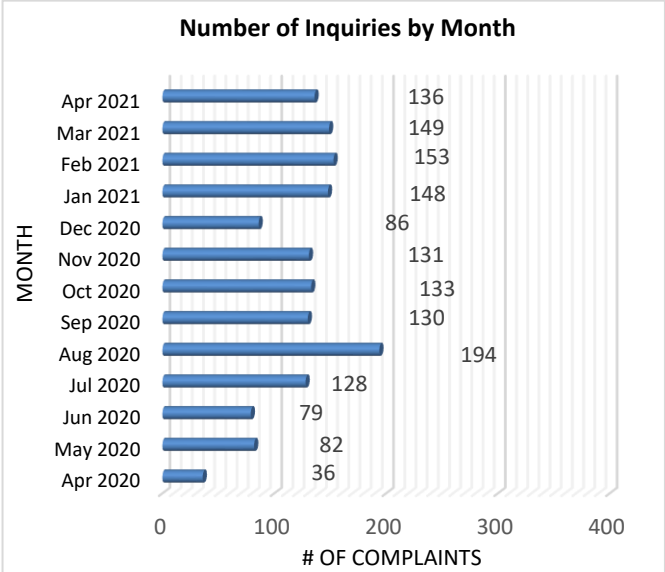

Noise Violations Three Year Comparison & Trendline
April
Trend (curved)
2019 2020 2021
April 5 0 2

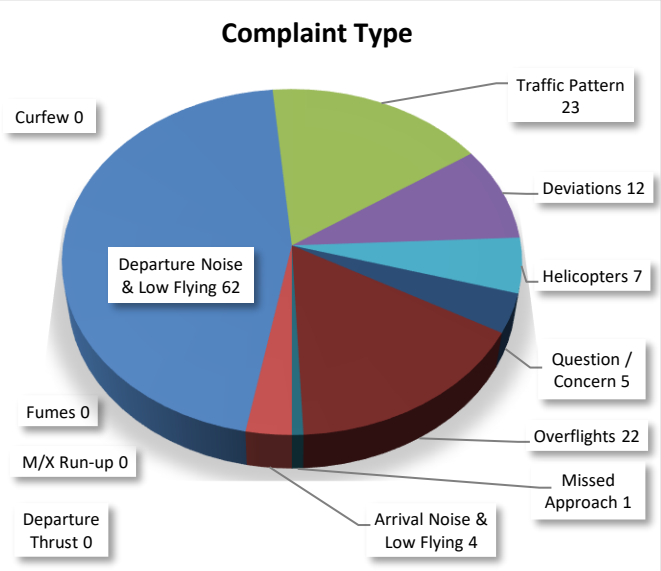
VIII. Aircraft Related Complaints

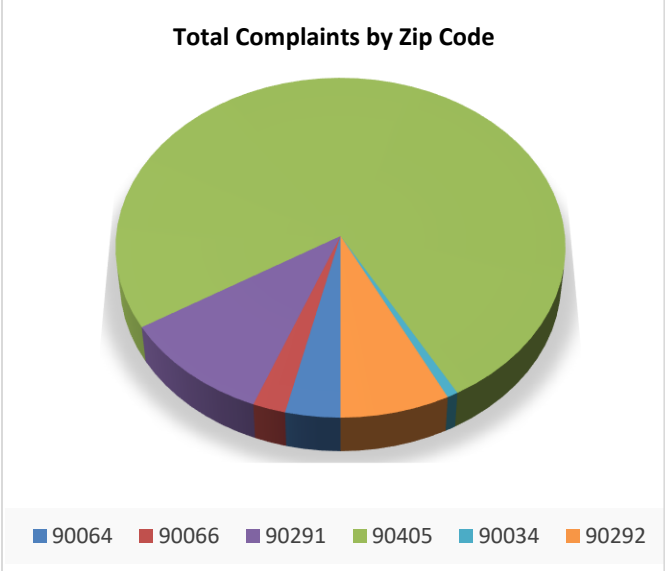
During the month of April of 2021, 33 individual households logged a total of 136 reports pertaining to aircraft operations. These inquiries were investigated, and proper actions were taken in accordance with the Airport's "Fly Neighborly Program" and the City of Santa Monica's "Noise Code". The following charts provide a breakdown of the inquiries noise management staff investigated during the month of April 2021.

At the request of the Airport Commission, staff began tracking inquiries caused by the Airbus A320 aircraft series. From the 22 overflight reports recorded during April of 2021, zero A320 overflights were attributed to these reports.









ATTACHMENT A

AIRPORT TRAFFIC RECORD	FACILITY NAME	LOCATION	(1-2) (3-4)	SMO (5-9)
Mail ORIGINAL of this form to Washington Office, APO-110, thru Regional Air Traffic Division.	Santa Monica ATCT	Santa Monica , California	MO. YR.	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	4	121	0	125	45	0	45	170	170
2	0	18	132	0	150		0	0	150	320
3	0	15	108	0	123	2	0	2	125	445
4	0	13	103	0	116	18	0	18	134	579
5	0	8	94	0	102	103	0	103	205	784
6	0	18	103	0	121	81	0	81	202	986
7	0	12	117	0	129	80	0	80	209	1195
8	0	12	104	0	116	62	0	62	178	1373
9	0	12	131	0	143	55	0	55	198	1571
10	0	3	141	0	144	37	0	37	181	1752
11	0	7	124	0	131	35	0	35	166	1918
12	0	5	81	0	86	116	0	116	202	2120
13	0	6	58	0	64	37	0	37	101	2221
14	0	2	103	0	105	254	0	254	359	2580
15	0	14	126	3	143	81	0	81	224	2804
16	0	9	184	0	193	77	0	77	270	3074
17	0	17	143	0	160	75	0	75	235	3309
18	0	5	89	0	94	23	0	23	117	3426
19	0	4	110	0	114	133	0	133	247	3673
20	0	0	75	0	75	124	0	124	199	3872
21	0	4	73	0	77	208	0	208	285	4157
22	0	8	94	0	102	112	0	112	214	4371
23	0	8	122	0	130	234	0	234	364	4735
24	0	4	109	0	113	51	0	51	164	4899
25	0	8	114	0	122	89	0	89	211	5110
26	0	7	85	0	92	83	0	83	175	5285
27	0	16	139	0	155	112	0	112	267	5552
28	0	9	116	0	125	89	0	89	214	5766
29	0	7	120	0	127	71	0	71	198	5964
30	0	7	147	0	154	103	0	103	257	6221
31	0	0	0	0	0	0	0	0	0	6221
TOTAL	0	262	3366	3	3631	2590	0	2590	6221	

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* →	04/21 (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	15	0	(16-19)	18	
2	0	11	26	0	(20-23)	37	
3	0	7	37	0	(24-27)	44	
4	0	6	14	0	(28-31)	20	
5	0	8	13	0	(32-35)	21	
6	0	9	22	0	(36-39)	31	
7	0	8	15	0	(40-43)	23	
8	0	10	8	0	(44-47)	18	
9	0	10	12	0	(48-51)	22	
10	0	3	15	0	(52-55)	18	
11	0	5	40	0	(56-59)	45	
12	0	1	30	0	(60-63)	31	
13	0	5	43	0	(64-67)	48	
14	0	2	22	0	(68-71)	24	
15	0	11	23	1	(72-75)	35	
16	0	8	25	0	(76-79)	33	
						(14-2)	
17	0	9	24	0	(16-19)	33	
18	0	5	11	0	(20-23)	16	
19	0	4	14	0	(24-27)	18	
20	0	0	14	0	(28-31)	14	
21	0	1	33	0	(32-35)	34	
22	0	8	47	0	(36-39)	55	
23	0	5	58	0	(40-43)	63	
24	0	4	38	0	(44-47)	42	
25	0	6	34	0	(48-51)	40	
26	0	5	13	0	(52-55)	18	
27	0	9	19	0	(56-59)	28	
28	0	7	17	0	(60-63)	24	
29	0	4	16	0	(64-67)	20	
30	0	7	9	0	(68-71)	16	
31	0	0	0	0	(72-75)	0	
TOTAL	0	181	707	1		889	
	(17-21)	(22-26)	(27-31)	(32-36)			
FACILITY USE							

ATTACHMENT B
Registered Noise Levels for Night Arrivals
11 pm and 7 am Weekdays
11 pm and 8 am Weekends

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ENGINE
4/5/21	23:30	N315HP	SR22	21	78.7	2	N315HP LLC	P
4/10/21	23:26	N796SP	C172	21	68.3	2	OPENSKY AIRWAYS LLC	P
4/13/21	23:13	N882AB	SR20	21	71.2	2	WEST WINGS AVIATION LLC	P
4/17/21	23:50	N7534D	R44	21	83.4	2	FLYING M AIR LLC	H
4/20/21	0:46	UNKN	SR22	21	77.1	2	UNKNOWN	P
4/21/21	0:49	N796SP	C172	21	DNR	2	OPENSKY AIRWAYS LLC	P
4/23/21	23:19	N882AB	SR20	21	70.7	2	WEST WINGS AVIATION LLC	P
4/24/21	7:47	N304QS	E55P	21	88.5	2	NETJETS INC	J
4/25/21	7:55	N160WW	PC12	21	91.4	2	ODYSSEY AIR LLC	T

ATTACHMENT C
(Authorized Departures & Curfew Violations)

Authorized Curfew Departures

NONE

Curfew Violations

NONE

ATTACHMENT D
(Aircraft Noise Violations)

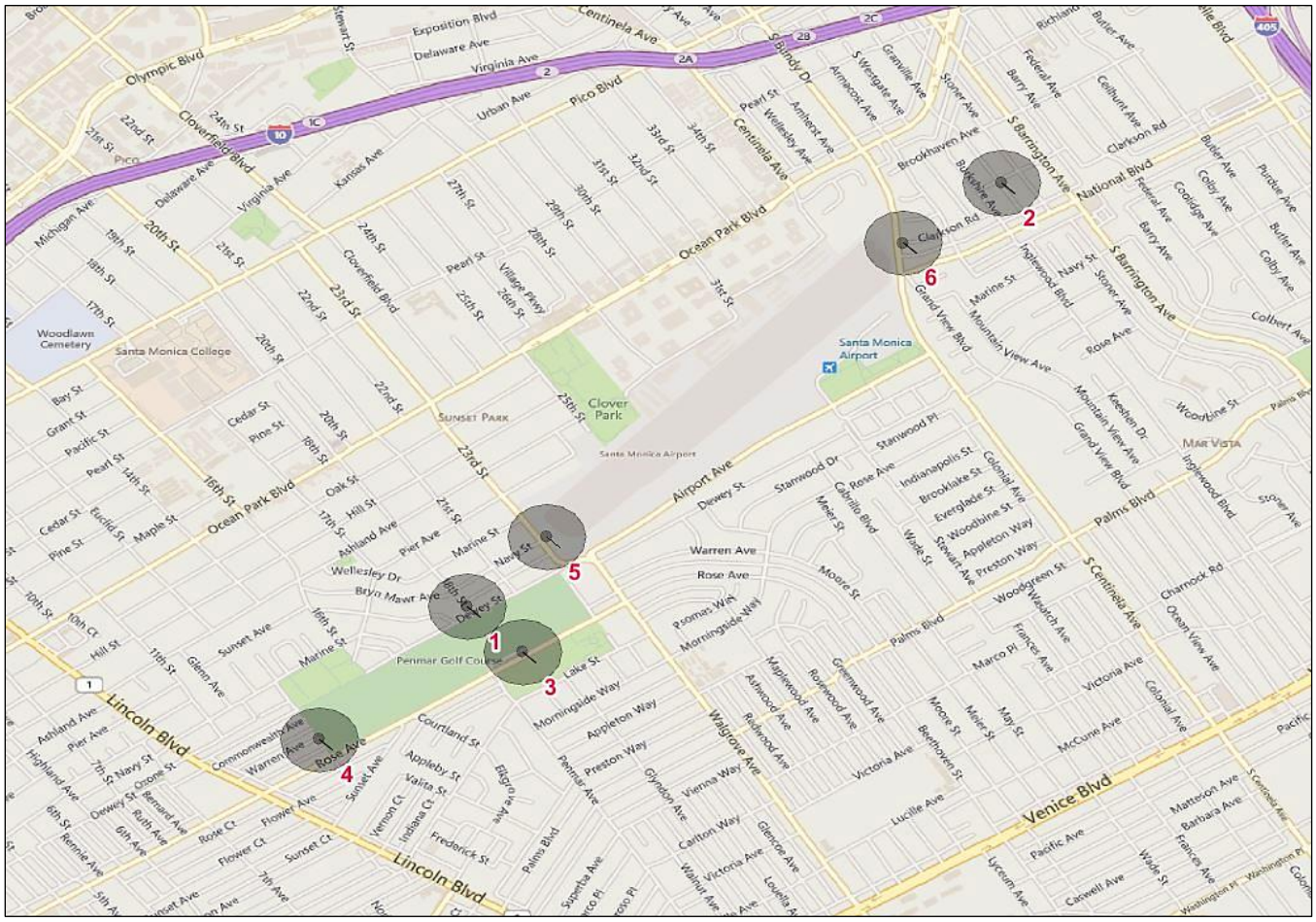
AIRCRAFT ENGINE CATEGORY LEGEND

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

DATE	TIME	NUMBER	TYPE	RWY	SENEL	RMS	COMPANY NAME	ACTION	ENGINE
4/11/21	14:18	N10TD	C560	21	97.0	1	SBM MANAGEMENT SERVICES LLC	WARNING	J
4/13/21	08:33	N479HY	C525	21	95.6	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.

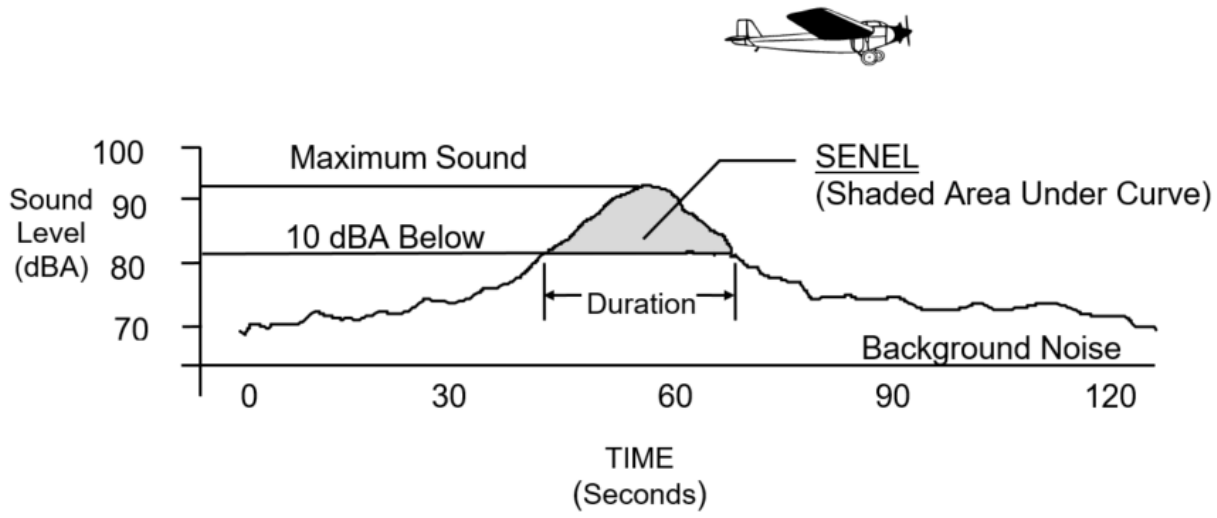
ATTACHMENT F
(Single Event Noise Exposure Level)

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.