

# CALENDAR YEAR 2022 ANNUAL OPERATIONS REPORT

**Santa Monica Municipal Airport**

May 2023



City of  
**Santa  
Monica**





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## 1 INTRODUCTION

This report is prepared to inform the Airport Commission and the general public about Santa Monica Airport's operations and Noise Management Program. The report summarizes aircraft operations, curfew operations, noise violations, and the Santa Monica Noise Ordinance enforcement during Calendar Year 2022.

## 2 NOISE MANAGEMENT PROGRAM SUMMARY

In addition to responding to the community's noise concerns and enforcing the City's Aircraft Noise Abatement Code, which includes a maximum allowable noise limit, curfew hours, and aircraft operational limitations, Airport staff is involved in a variety of supplementary activities intended to mitigate the impact of aircraft operations to the maximum extent possible on the residential areas surrounding the Airport.

### 2.1 NOISE & OPERATIONAL PROCEDURES ENFORCED BY ORDINANCE

The following procedures and limitations are enforced through the Aircraft Noise Abatement Code, as stipulated in Chapter 10 of the Santa Monica Municipal Code. Violations may result in the imposition of fines and or exclusion from operating at the Santa Monica Airport.

#### **Maximum Noise Level**

A maximum noise level of 95.0 dBA Single Event Noise Exposure Level (SENEL), as measured at the two noise monitoring stations located 2,200 feet from each end of the runway. The ordinance is enforced 24 hours a day, seven days a week.

#### **Night Departure Curfew**

No take-offs or engine starts, including auxiliary power unit (APU), are permitted between 11 p.m. and 7 a.m. Monday through Friday or until 8 a.m. on weekends. Exceptions are only allowed for bona fide medical or public safety flights.

#### **Operational Limitations**

Training operations, such as touch-and-go, and stop-and-go, are prohibited on weekends, holidays, and weekdays from one-half hour after sunset until 7 a.m. the following day. This limitation does not apply to pattern flying, which is a standard arrival and departure procedure at airports. Simulated forced landings opposite to the direction of take-off are also forbidden.

### **Helicopter Training**

Helicopter training is prohibited by City Ordinance at Santa Monica Airport.

## **2.2 RECOMMENDED NOISE MANAGEMENT OPERATIONAL PROCEDURES**

In addition, the following voluntary procedures and limitations have been incorporated into the Airport's Fly Neighborly Program and included in the program's outreach materials:

### **Voluntary Arrival Curfew**

Although arrivals are permitted 24 hours a day, pilots are requested to avoid all operations between 11 p.m. and 7 a.m. Monday through Friday or until 8 a.m. on weekends. The voluntary arrival curfew follows the same timeframe as the mandatory departure curfew.

### **Visual Flight Rules (VFR) Departure Procedures**

Fixed-wing aircraft and helicopters departing to the west are requested to overfly the Penmar Golf Course and initiate northerly turns at the shoreline and southerly turns at Lincoln Boulevard. Runway 3 departures are requested to fly the runway heading until reaching the Interstate 405 freeway.

### **Reverse Thrust**

Because of the high noise generated by aircraft utilizing reverse thrust upon landing, particularly during the night hours, the Airport recommends the most minimal use of reverse thrust necessary for safety.

### **Instrument Flight Rules (IFR) Engine Start Procedures**

To minimize the holding time between engine start and departure, fixed-wing turbine aircraft are requested to coordinate the expected departure release time with Air Traffic Control and obtain an engine start clearance before taxi.

### **Auxiliary Power Unit (APU) Limitation**

Many jet aircraft utilize APUs to provide electricity to aircraft systems before or just after the flight. Pilots are requested to limit APU use to thirty minutes maximum for noise abatement purposes. The APU is also considered an engine, and its use is restricted, consistent with the mandatory departure and engine-start curfew hours.

### **Helicopter Arrival Procedures**

The Helicopter Letter of Agreement between the City of Santa Monica and the FAA was amended to reflect the Airport Working Group's recommendation to route helicopters approaching Santa Monica Airport at an altitude of 900 feet above sea level and perpendicular to the runway headings.

### **Formation Flying**

Formation take-offs and landings are prohibited. Formation flying within the FAA-designated Class D Airspace surrounding the Airport is highly discouraged unless necessary for an emergency. Typically, Class D airspace covers an airport with an operating control tower, has a radius of 5 miles, and extends from the surface up to 2,500 feet above airport elevation. Before entering Class D airspace, aircraft must make radio contact with the Air Traffic Control Tower.

## **2.3 COMMUNITY OUTREACH**

During 2022, transparency and public relations remained a central component of the Airport's noise management program. Our web-based application, Webtrak, allows the public to track and investigate aircraft overflying their area and report any aircraft to Airport staff for further investigation.

Airport staff has continued to dedicate a considerable amount of time to the essential tasks of investigating and following up on all inquiries from local residents and businesses. Every effort is made to ensure that each inquiry received is responded to within five days. Inquiries from the community are beneficial for staff to understand better the community's perspective on aircraft noise and to identify changes or trends in the adherence of aircraft to the Fly Neighborly Program.

## **2.4 PILOT OUTREACH & EDUCATION**

Throughout 2022, noise management staff continued an extensive pilot outreach program intended to educate pilots using the Santa Monica Airport on the Airport's Fly Neighborly Program. In addition to the direct day-to-day communication and education of aircraft operators, the program also includes the distribution of brochures that explain the Fly Neighborly Program, operational limitations, and noise abatement procedures. Brochures are also available at public locations throughout the Airport and on the Airport's Website.

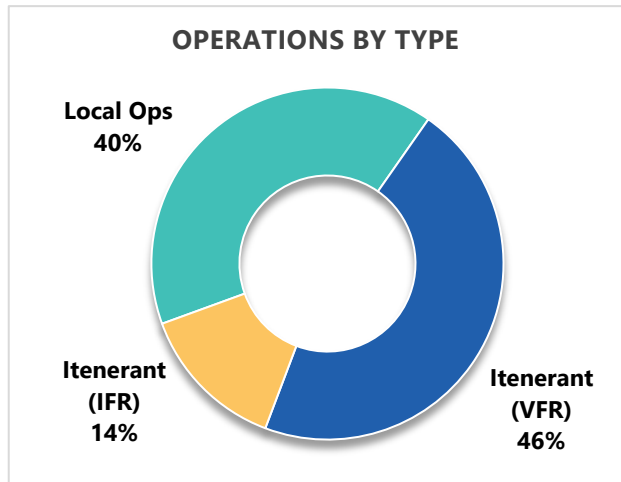
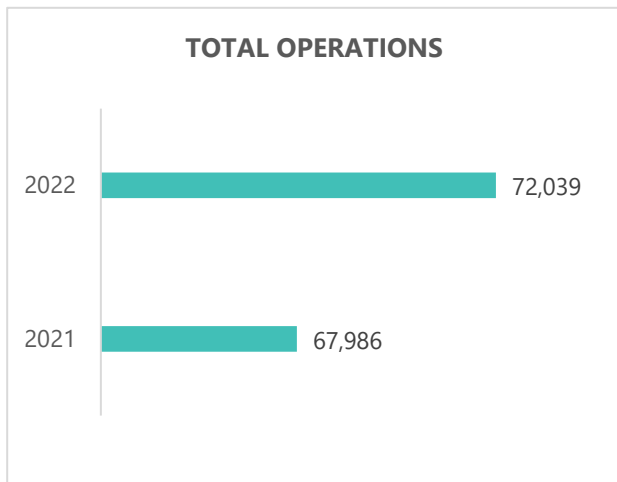
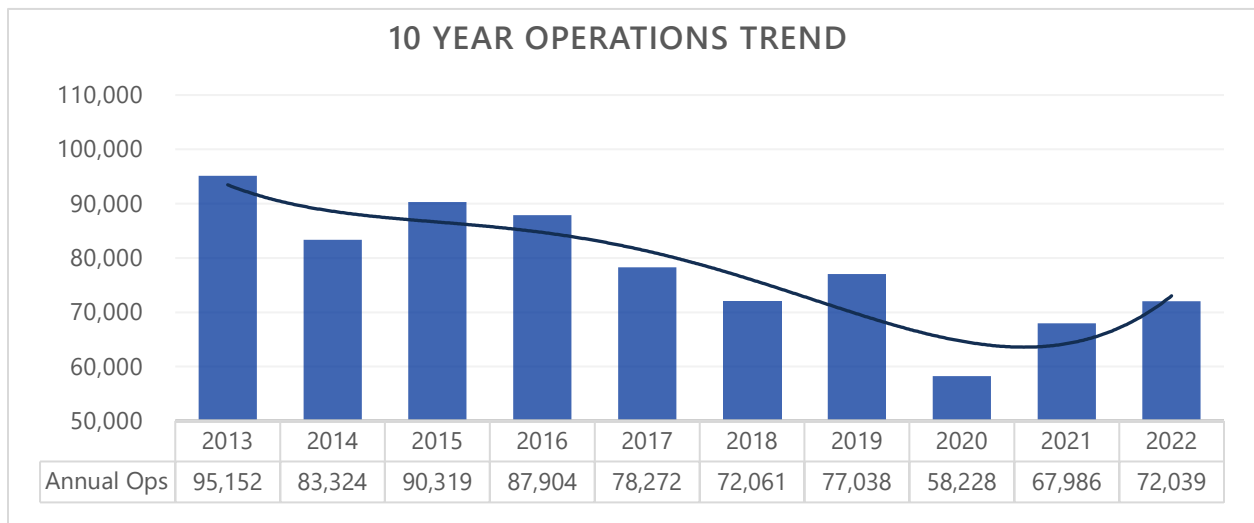
## **3 AIRCRAFT OPERATIONS DATA**

The data presented in this section of the report originates from several sources. The Federal Aviation Administration Air Traffic Control Tower provides the total monthly operations count. Data captured from the Airport's Landing Fee Program and the Airport Noise and Operations Management System is then used to analyze and categorize the operations.

### 3.1 TOTAL ANNUAL OPERATIONS

The total number of aircraft operations (an aircraft operation is defined as one take-off or one landing) recorded during the 2022 calendar year was 72,039. Total annual operations increased by approximately 6% from the 67,986 operations recorded in 2021.

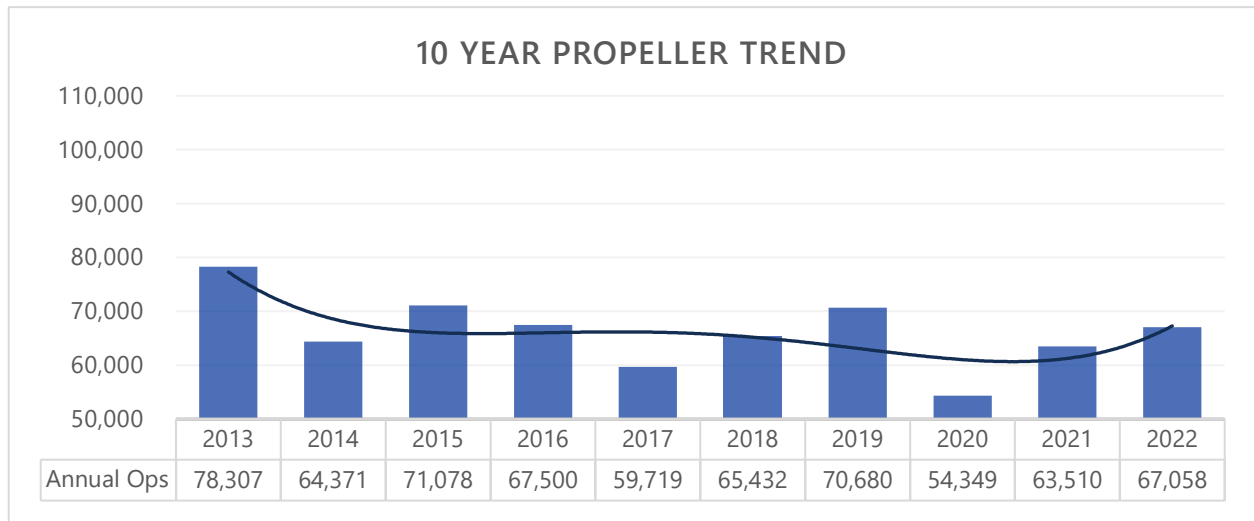
From the total annual operations, approximately 14% were aircraft on instrument flights (IFR itinerant), 40% were local flights (VFR local operations), and 46% were VFR itinerant flights. "Local operations" are defined as an aircraft operation that stays within the Airport's Class D controlled airspace, generally within five nautical miles of an airport, including aircraft flying the airport traffic pattern. "Itinerant or Transient Flights" are defined as flights arriving from or departing to another airport outside the Santa Monica Class D airspace.





### 3.2 PROPELLER AIRCRAFT OPERATIONS

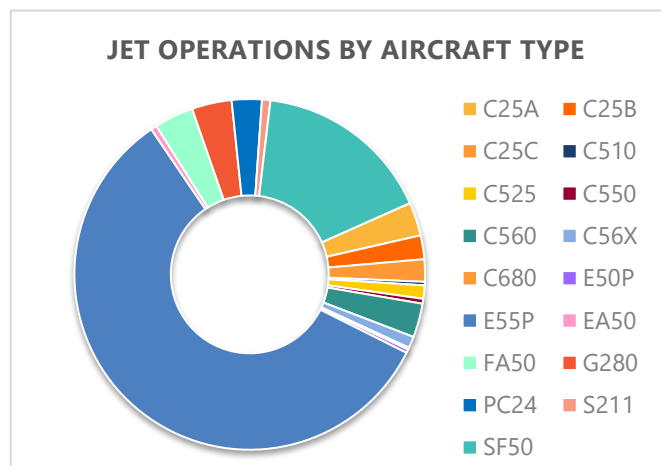
Approximately 93% or 67,058 of the total aircraft operations in 2022 consisted of propeller aircraft. Annual propeller aircraft operations (single-engine piston, multi-engine piston, and turboprop) increased by 6% compared to the 63,510 operations recorded in 2021. Of the total propeller operations recorded, approximately 6% consisted of turboprop aircraft.

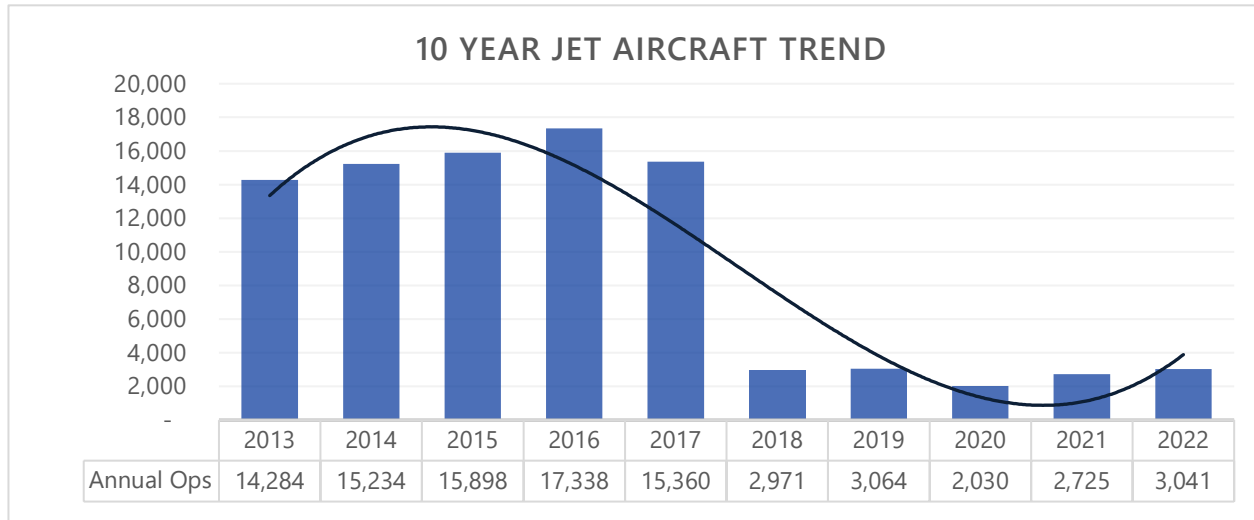


### 3.3 JET AIRCRAFT OPERATIONS

Jet aircraft recorded 3,041 operations, an increase of 12% compared to the 2,725 jet operations recorded in the previous year. Jet aircraft represented approximately 4% of the total annual operations in 2022.

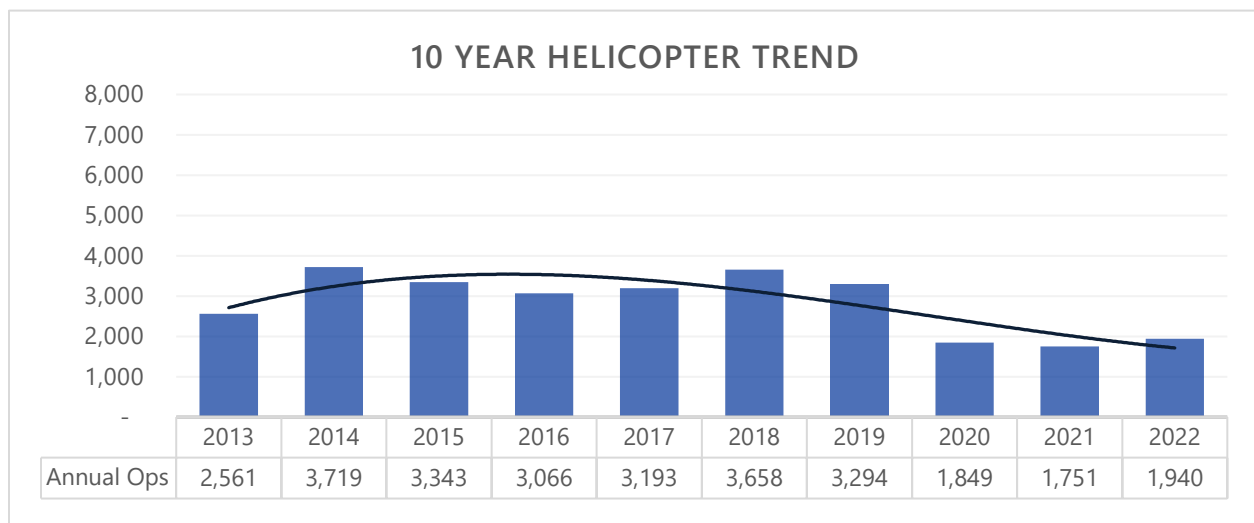
At the end of December 2017, the City completed an airport reconfiguration project to reduce the runway length to 3,500 feet. As a result, jet aircraft that require longer landing or take-off distances no longer operate at Santa Monica Airport, which caused a reduction in jet operations in subsequent years. The adjacent chart depicts the jet fleet mix operating at the Airport in 2022.





### 3.4 HELICOPTER OPERATIONS

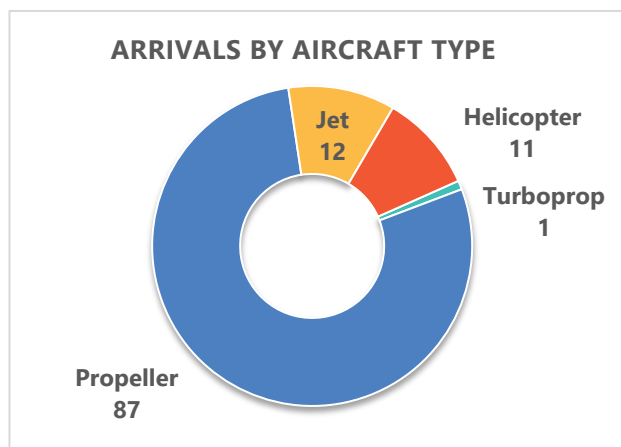
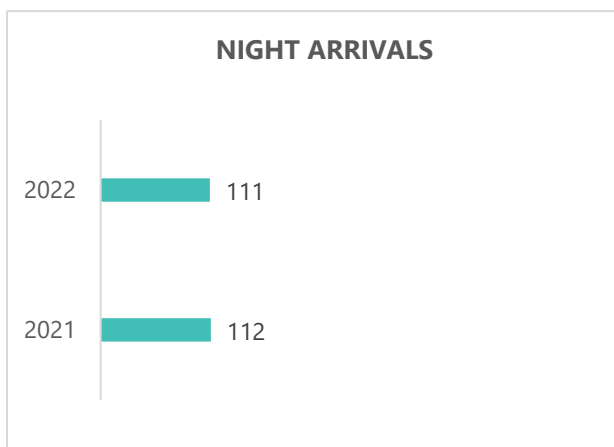
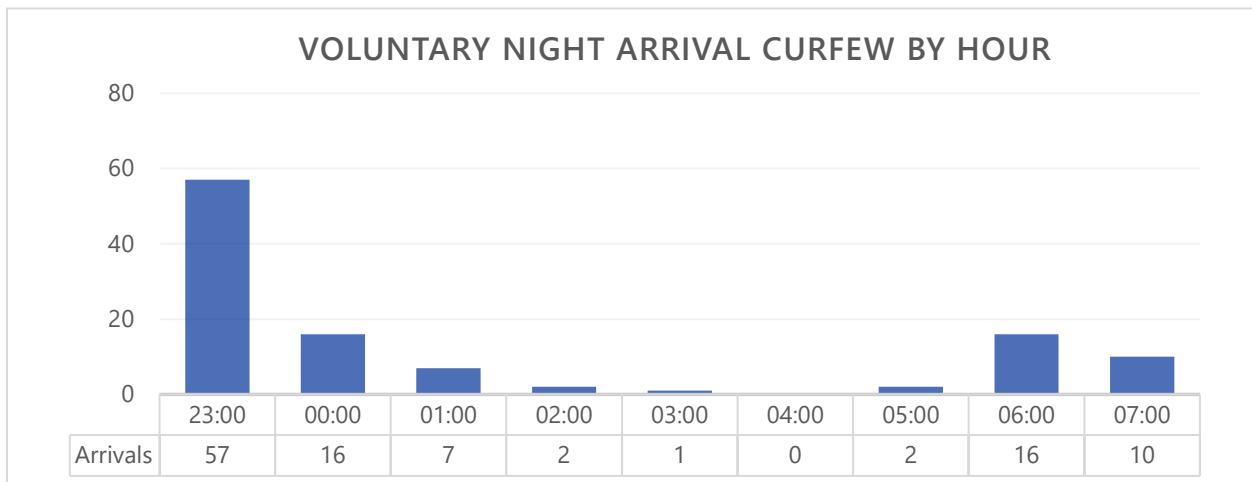
Santa Monica Municipal Code (SMMC) section 10.04.04.100 (b) prohibits helicopter flight training operations at Santa Monica Airport. Thus, the great majority of helicopter operations consist of itinerant flights. In 2022, helicopters recorded approximately 1,940 operations, representing 3 % of the total annual operations. Helicopter operations increased by about 11% in 2022 compared to the 1,751 operations recorded in 2021.



## 4 VOLUNTARY NIGHT ARRIVAL CURFEW

Although arrivals are permitted 24 hours a day, pilots are requested to comply with the Airport’s Voluntary Night Arrival Curfew and avoid arriving between 11:00 p.m. and 7:00 a.m. on weekdays, and 11:00 p.m. to 8:00 a.m. on weekends. In an effort to improve compliance with the Airport’s voluntary night arrival curfew, all of the operators that arrive during these hours are contacted by airport staff to request compliance with the Voluntary Arrival Curfew in the future. Most arrivals during the Voluntary Night Arrival Curfew were by propeller aircraft (single-engine and turboprop).

During 2022, Airport Staff logged 111 arrivals during the Voluntary Night Curfew hours, a decrease of less than 1% compared to the 112 arrivals recorded in 2021. The graph below depicts the number of Voluntary Arrival Curfew arrivals by hour during 2022. The majority of arrivals (75%) occurred during the first or last hour of the Voluntary Arrival Curfew.



## 5 CURFEW VIOLATIONS

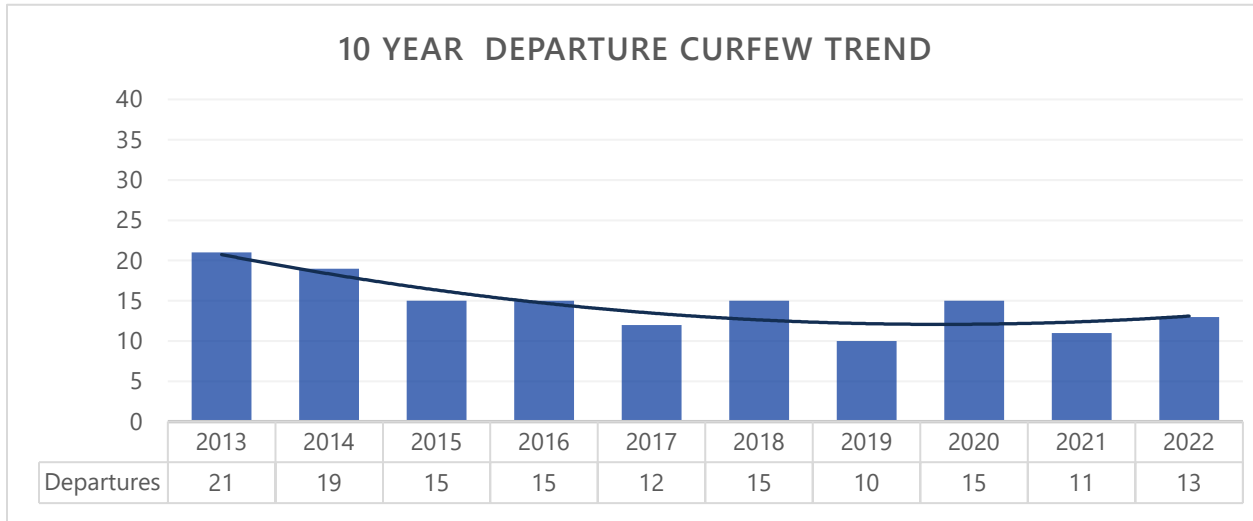
Santa Monica Airport enforces a departure curfew prohibiting engine start-ups and departures during nighttime hours. The Santa Monica Municipal Code (SMMC) Section 10.04.04.080(b) states:

No aircraft shall be started, run up, or depart the Airport between the hours of 11:00 p.m. and 7:00 a.m. Mondays through Fridays, nor between 11:00 p.m. and 8:00 a.m. Saturdays and Sundays, except in case of bona fide medical or public safety emergency, with the consent of the Airport Director or, in their absence, the Watch Commander of the Police Department.

Certain operations are exempt from Santa Monica Airport's curfew restrictions per California Public Utilities Code §21662.4. It exempts emergency aircraft flights for medical purposes, law enforcement, firefighting, military, or for persons who provide emergency flights for medical purposes from local ordinances adopted by a city, county, or local entity, whether general law or chartered, that restrict flight departures and arrivals to particular hours of the day or night. In 2011 this Section of the PUC added language to exempt aircraft or equipment used during a medical emergency or emergency personnel and first responders involved in treating the medical emergency to returning to its base of operation.

Most of the curfew departures were by medical or law enforcement aircraft. The term "Lifeguard" is used to identify air ambulance flights operating on missions of an urgent medical nature (first call to an accident scene, carrying patients, organ donors, organs, or other urgently needed lifesaving medical material) to receive priority routing by the Air Traffic Control.

In 2022, Airport Staff logged a total of 13 curfew departures, an increase of 18% from the 11 curfew departures logged in 2021. Although most departures were categorically exempt under the lifeguard or law enforcement provision, the Airport's Noise Office issued one departure curfew violation to an aircraft that disregarded the mandatory curfew.



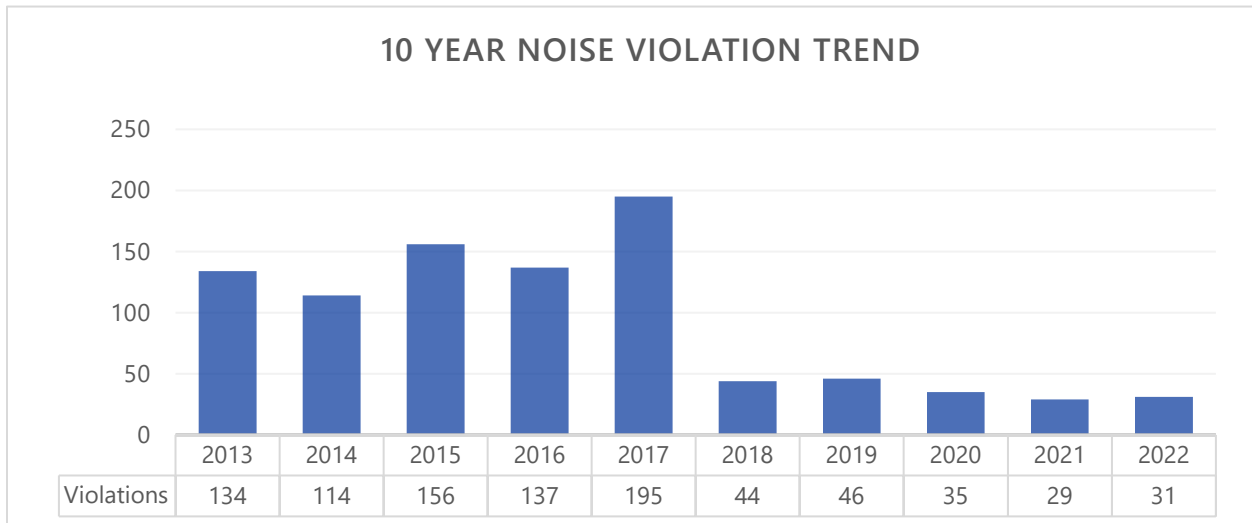
## 6 NOISE VIOLATIONS

Santa Monica Airport also enforces a maximum noise limit approved by City Ordinance adopted in 1985. The Santa Monica Municipal Code section 10.04.04.060 states:

*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 January 1, 1985.*

The only Remote Monitoring Stations (RMS) that can be used for the enforcement of the noise limit are RMS 1 and RMS 2. These monitors are located 2,200 feet from each end of the runway. (See Attachment A for the RMS locations and Attachment B for the definition of SENEL).

During 2022, staff logged 31 noise violations, a 7% increase from the 29 noise violations recorded in 2021. Of the 72,039 aircraft operations recorded during 2022, 99.9% were compliant with Santa Monica Airport’s Noise Ordinance. The noise violations listed in the graph below were assessed at RMS sites 1 or 2 and do not include exempted law enforcement or medical emergency operations.



## 7 NOISE ORDINANCE & ENFORCEMENT PROCEDURES

Consistent with the Santa Monica Municipal Code, noise management staff establishes contact with each aircraft's owner, operator, or pilot exceeding the 95.0 dBA SENEL noise limit. Most first-time offenders are unaware that their aircraft can exceed the 95-decibel limit. As part of the investigation of the initial violation investigation, staff provides technical noise abatement information to pilots to allow them to implement compatible flight procedures to meet the strict noise requirements of the Airport's noise ordinance. The Airport promotes the utilization of safe, consistent, and effective noise abatement procedures and informs all operators of the penalties imposed for repeated or willful violations.

Most aircraft operating at Santa Monica Airport can fly under the 95-decibel SENEL limit with changes in pilot technique or aircraft operating weight. The Santa Monica Airport's noise management program aims to communicate methods or techniques that will lower aircraft noise levels, thus minimizing the impact of aircraft operations on the surrounding community.

### 7.1 NOISE VIOLATIONS BY AIRCRAFT TYPE

Historically, jet aircraft have comprised most of the noise violations. Staff focuses their efforts on working with manufacturers and operators of jet aircraft to develop and implement safe and compliant procedures. In addition, staff has also worked extensively with operators of non-jet

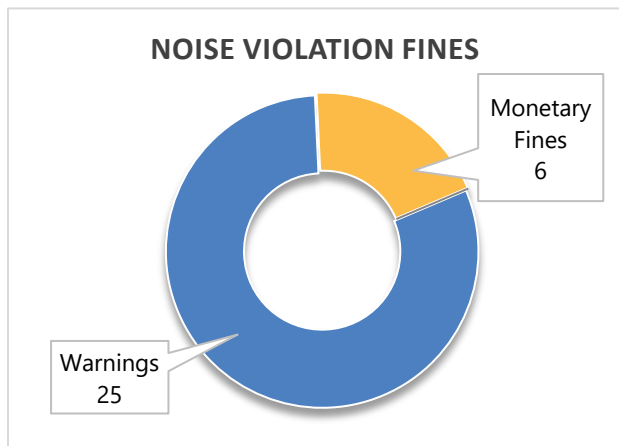
aircraft, particularly those prone to higher noise levels, to reduce noise violations further and increase compatibility with the surrounding residential areas.

## 7.2 NOISE LIMIT STRUCTURE (FINES & BANS)

Extensive routine outreach and counseling by Airport staff with pilots can result in compliance with the maximum noise level of 95.0 dBA SENEL. Multiple violations without progressive attempts at compliance, and after considering all relevant factors, including the willfulness, severity, and not caused by extraneous factors beyond the pilot’s control such as loss of power, avoiding other aircraft, or unusual weather conditions, aircraft can be fined, and excluded from operating at Santa Monica Airport.

Additionally, Noise Management staff maintains a list of aircraft that are unable to meet the maximum noise level of 95.0 dBA SENEL. These “Listed Aircraft” shall be permanently excluded from operating at Santa Monica Airport after one violation of the noise limit. “Listed Aircraft” mainly include several ex-military turbine and piston aircraft as well as some older Stage II business jets, including the Lear 20 series, the Gulfstream II & III series, and the early Sabreliner series.

Of the 31 noise violations issued during calendar year 2022, 6 aircraft were issued monetary fines. There were no operations or violations recorded from “listed aircraft.” The adjacent graph depicts the breakdown of aircraft that were fined and restricted from Santa Monica Airport. In 2022, 81% of the 31 noise violations were first-time violations.



As of December 14, 2003, the following prescribed amendments to the Santa Monica Municipal Code SMMC sections 10.04.04.040, 10.04.04.050, and 10.04.04.055 are being enforced as approved by the Santa Monica City Council on October 23, 2003:

1. Civil penalties for violations of the Noise Code may be imposed on each pilot, aircraft owner, and operator.
2. Initial penalty for a repeat or willful violation shall be two thousand dollars (\$2,000).

3. The penalty for a violation following the initial civil penalty shall be five thousand dollars (\$5,000).
4. The penalty for a violation following the second civil penalty shall be ten thousand dollars (\$10,000).
5. After the imposition of the maximum fine of \$10,000, subsequent violations shall, after a hearing, result in a suspension of Airport privileges for six months and, following that, revocation of privileges or permits.

## 8 AIRCRAFT DEVIATIONS

The Santa Monica Airport recommends that fixed-wing aircraft and helicopters arriving and departing under Visual Flight Rules (VFR) follow established flight paths designed to reduce the overall impact on the surrounding communities.

Westerly departing fixed-wing aircraft are requested to make a 10-degree turn at the end of the Airport and overfly the Penmar Golf Course, followed by a right turn at the shoreline if traveling north. Aircraft returning to the Airport after departure are requested to turn left at Lincoln Boulevard and fly at the prescribed pattern altitude of 1,370 feet Mean Sea Level (MSL). Aircraft departing easterly (Runway 3) are requested to fly the runway heading until the 405 interstate freeway is reached.

Helicopters are requested to adhere to the same departure paths as fixed-wing aircraft. However, arriving helicopters are asked to avoid the flow of other arriving fixed-wing aircraft and enter mid-field at or above 900 feet MSL and execute a 270° descending turn to the runway. The descent should be made over the Airport or business park to the runway when possible.

It is important to note that there are certain situations when aircraft deviate from the requested flight path procedures, and they are as follows:

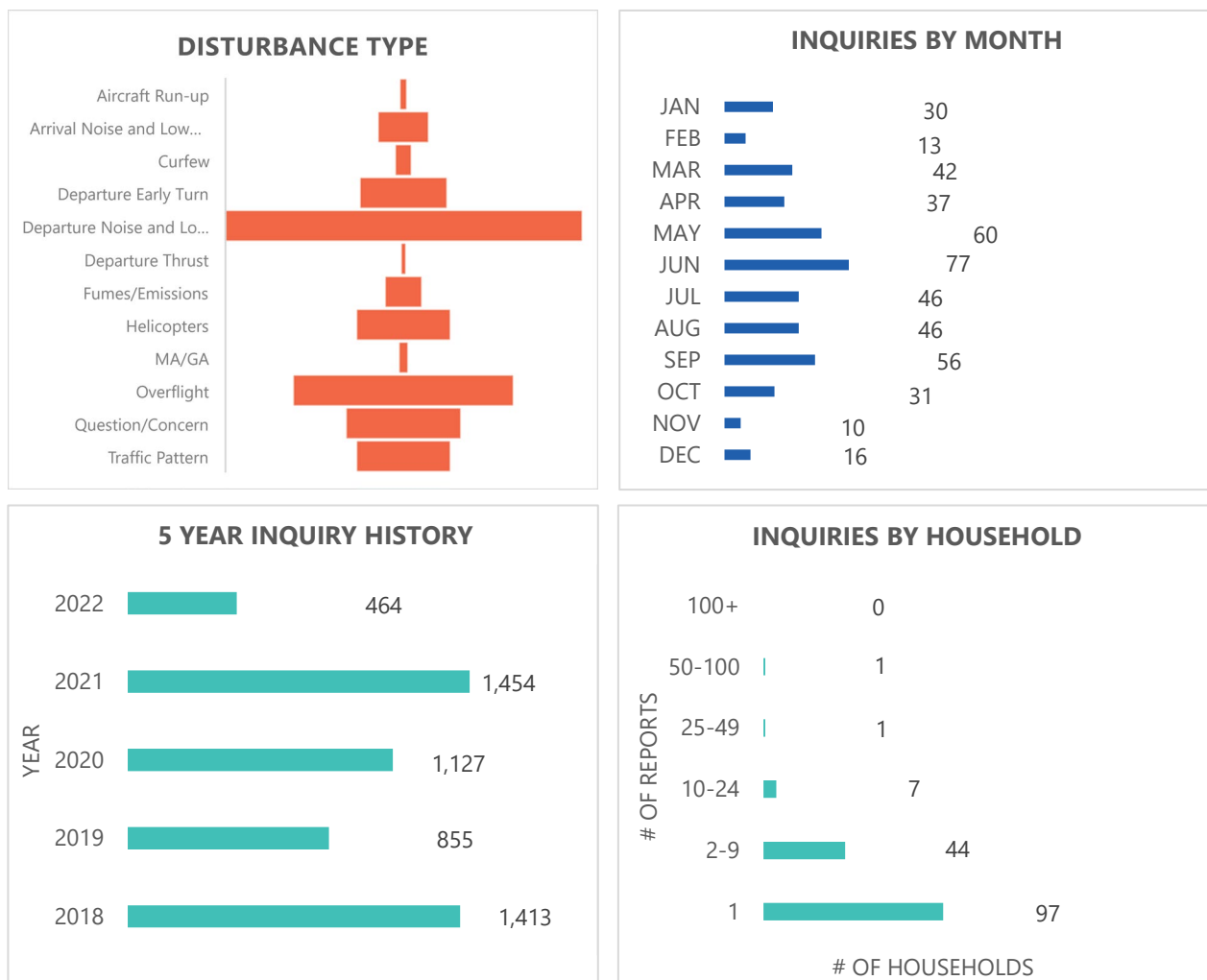
1. All instrument (IFR) departures must fly a defined track controlled by the Federal Aviation Administration (FAA). Instrument departures generally fly the runway heading and do not offset to overfly the Penmar Golf Course.
2. The FAA Air Traffic Control Tower may issue instructions to maintain proper aircraft separation. For example, departing aircraft may occasionally be instructed to turn early to clear the area for faster departing IFR traffic behind.
3. Meteorological conditions may require a pilot to deviate from the procedures in order to comply with Federal Aviation Administration Regulations that, for example, require that pilots remain clear of clouds.

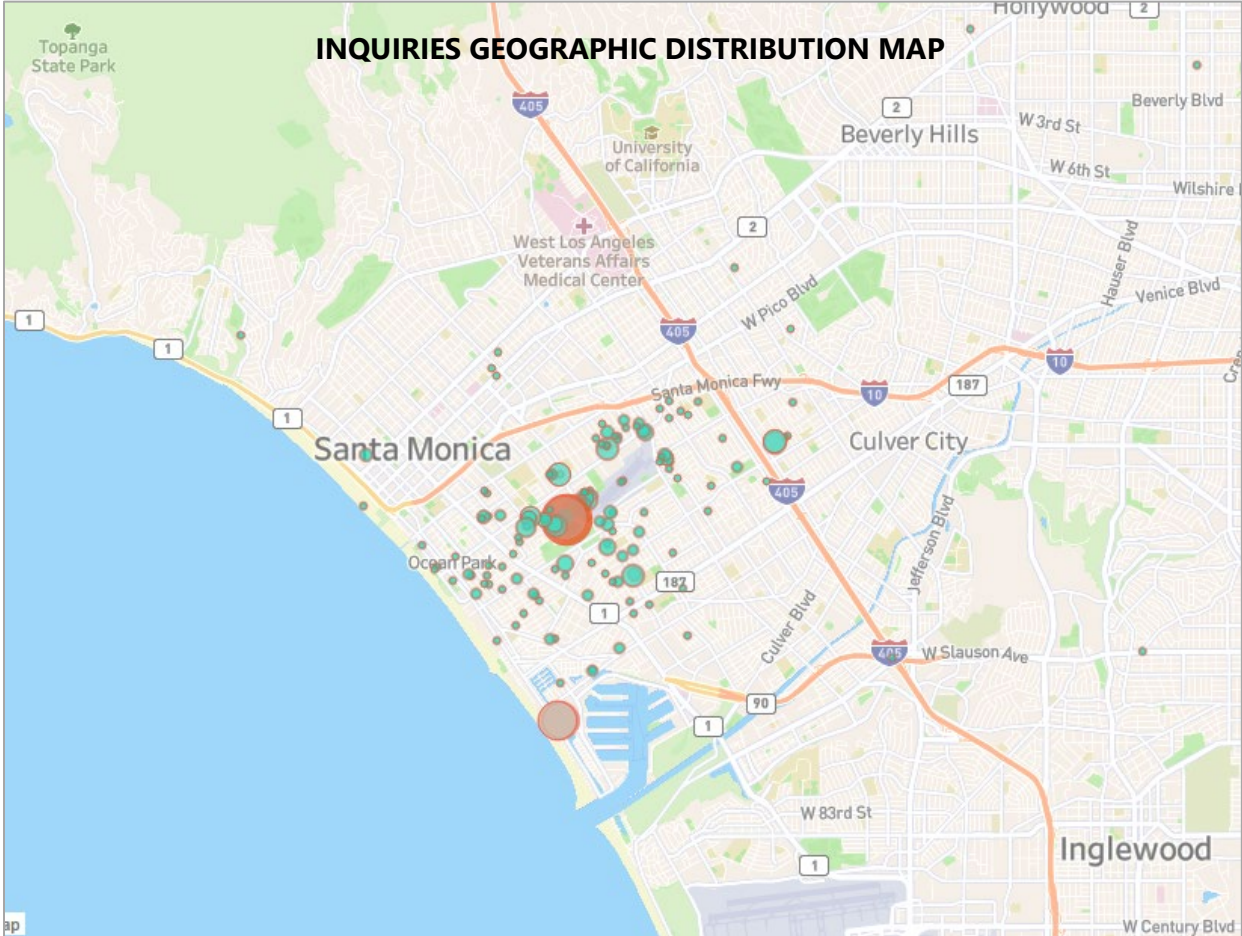


Throughout 2022, Airport staff spent many hours monitoring aircraft operations to ensure compliance with the requested noise management procedures. Airport staff made every effort to contact aircraft operators identified as deviating from the requested flight paths and educated the pilots about the proper noise management procedures. Additionally, airport staff sent correspondence to all operators that came close to exceeding the maximum noise limit of 95 dBA SENEL.

## 9 COMMUNITY INQUIRIES

During 2022, Airport Noise Management staff received a total of 464 aircraft-related reports from 150 individual households. All inquiries were investigated, and proper actions were taken in accordance with the Municipal Code and the Airport’s “Fly Neighborly Program.” The following charts provide a breakdown of the outcomes of the reports investigated during 2022.

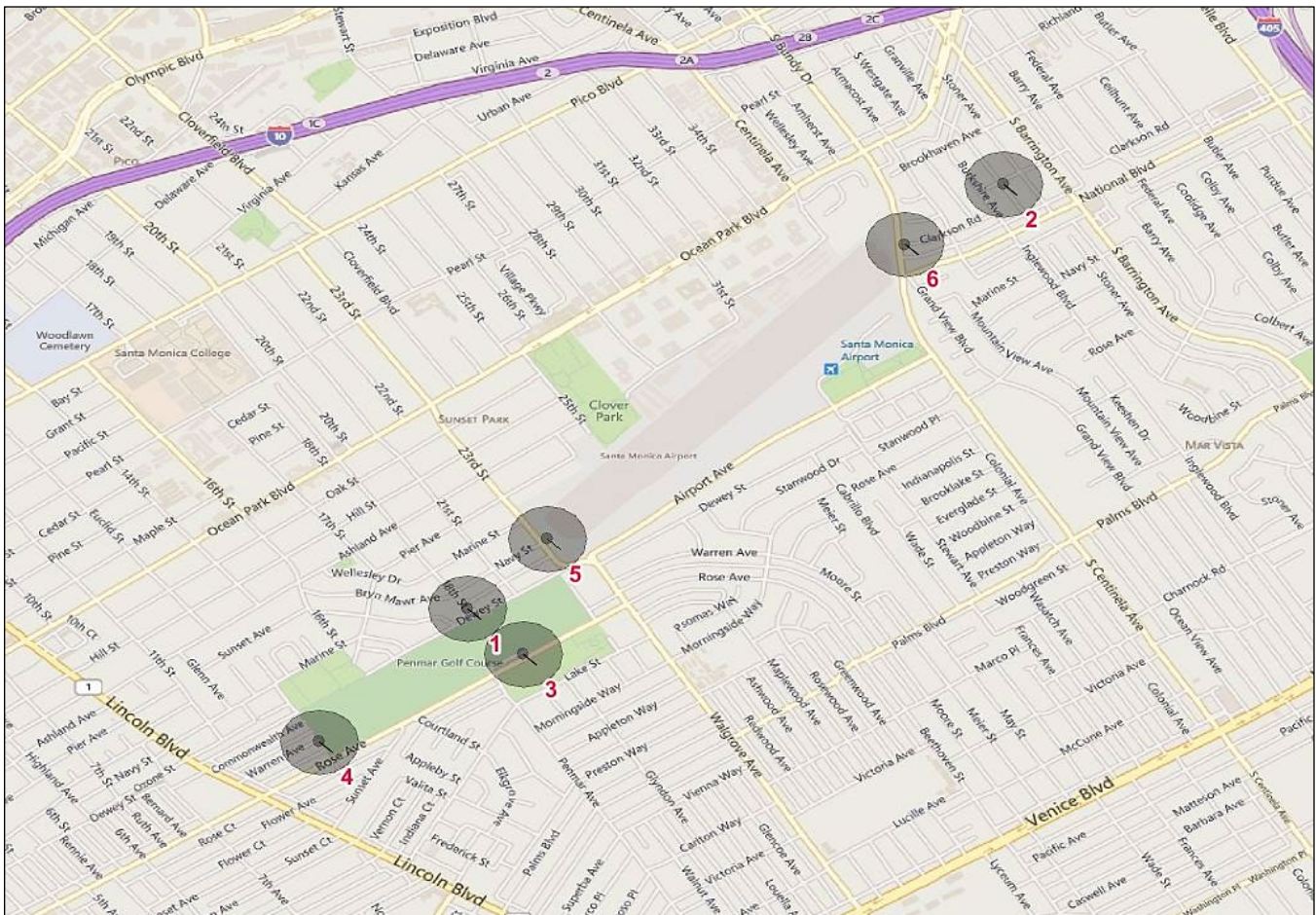




**ATTACHMENT A**

**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.

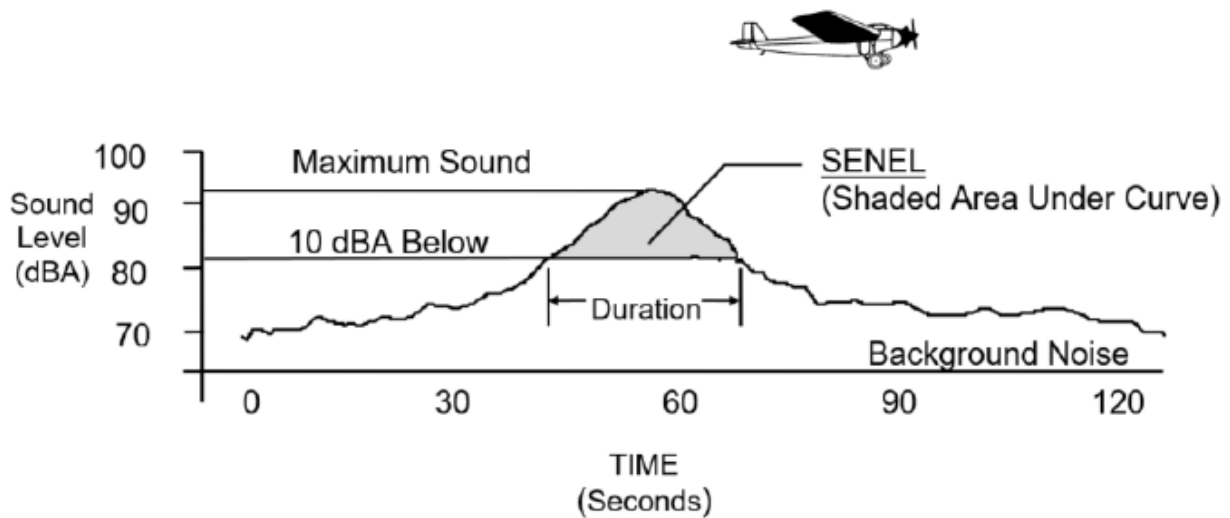
**ATTACHMENT B**

**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.