CASPER

# CITY OF SUNNYVALE 2025 ANNUAL FLIGHT OPERATIONS AND NOISE REPORT SUMMARY

CASPER AIRPORT SOLUTIONS, INC. | 1055 Westlakes Drive, Suite 300, Berwyn, PA 19312 | https://casper.aero

# DISCLAIMER

Casper Airport Solutions, Inc. provides the data in this report on behalf of the City of Sunnyvale for informational purposes only. It has no legal standing and is not recognized as an official source by either the State of California or the Federal Aviation Administration (FAA).

The City of Sunnyvale is not an airport authority. It has no statutory reporting obligation under Title 21 of the California Department of Transportation.

The sound level meters installed by Casper are certified by the manufacturer Larson Davis to meet all ANSI performance requirements for a Type 1 sound level meter.

The FAA System Wide Information Management (SWIM) flight track position data has a stated minimum accuracy of ± 150 feet and temporal accuracy of approximately 1 second.

# INTRODUCTION

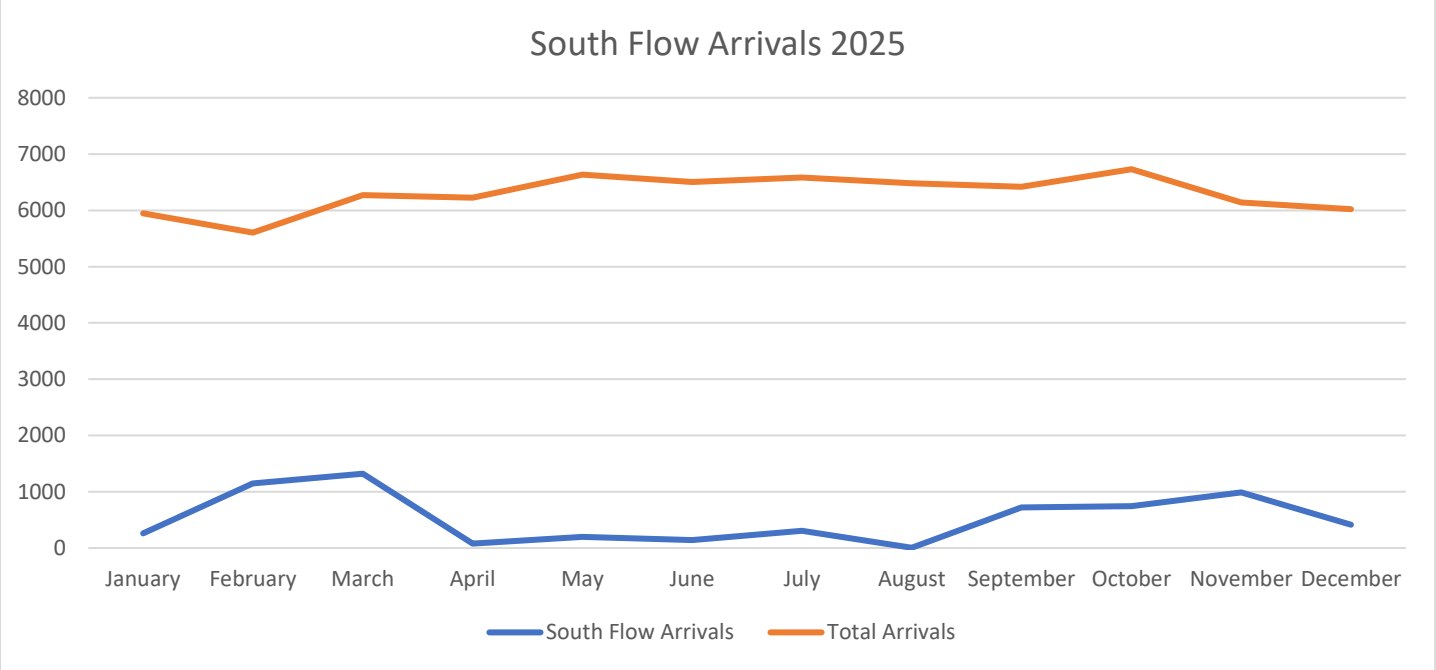
The City of Sunnyvale's primary goal in procuring a Noise and Operations Monitoring System (NOMS) is to monitor flight activity and the aircraft noise associated with overflights that affect residents living within the city limits. Secondly, to provide this data to interested parties in a transparent and unfiltered way.

The data contained in this report is a summary of the most relevant noise and operations data over the course of the previous calendar year. Each metric will be given a short explanation.

For a more detailed explanation of the various noise metrics, general aircraft operations, or ATC procedures discussed in this report, please refer to the Education section of the City of Sunnyvale's NoiseLab website (https://syv.noiselab.casper.aero). The website also contains interactive data browsers that allow interested parties to view detailed noise and flight operations statistics concerning areas around the City of Sunnyvale.

# **SJC AIRPORT** SOUTH FLOW DATA FOR 2025

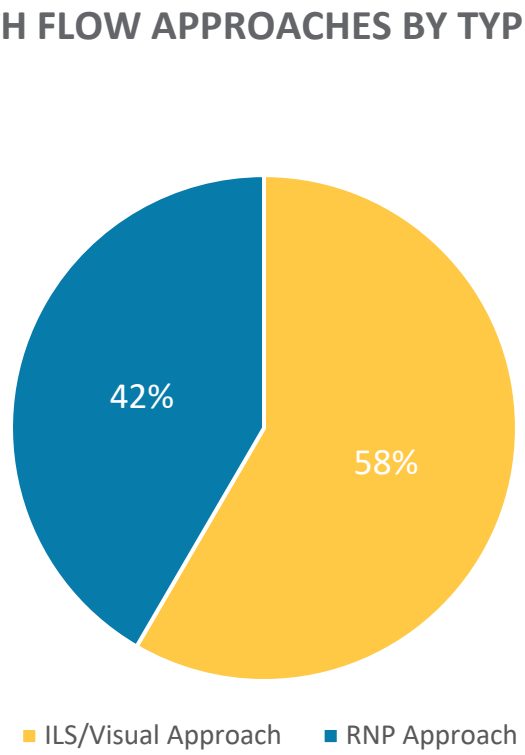
One of the City of Sunnyvale's primary objectives in installing a Noise and Operations Monitoring System (NOMS) was to monitor and report on South Flow arrivals that overfly the City on their approach to land to Norman Y. Mineta San Jose International Airport (SJC). To glean any seasonal trends in South Flow usage, or long term increases or decreases, an annual summary has been included below.




There are two types of approaches flown by airplanes landing in South Flow at SJC Airport. The ILS/Visual approach, which is more dispersed, and the more concentrated RNP approach.

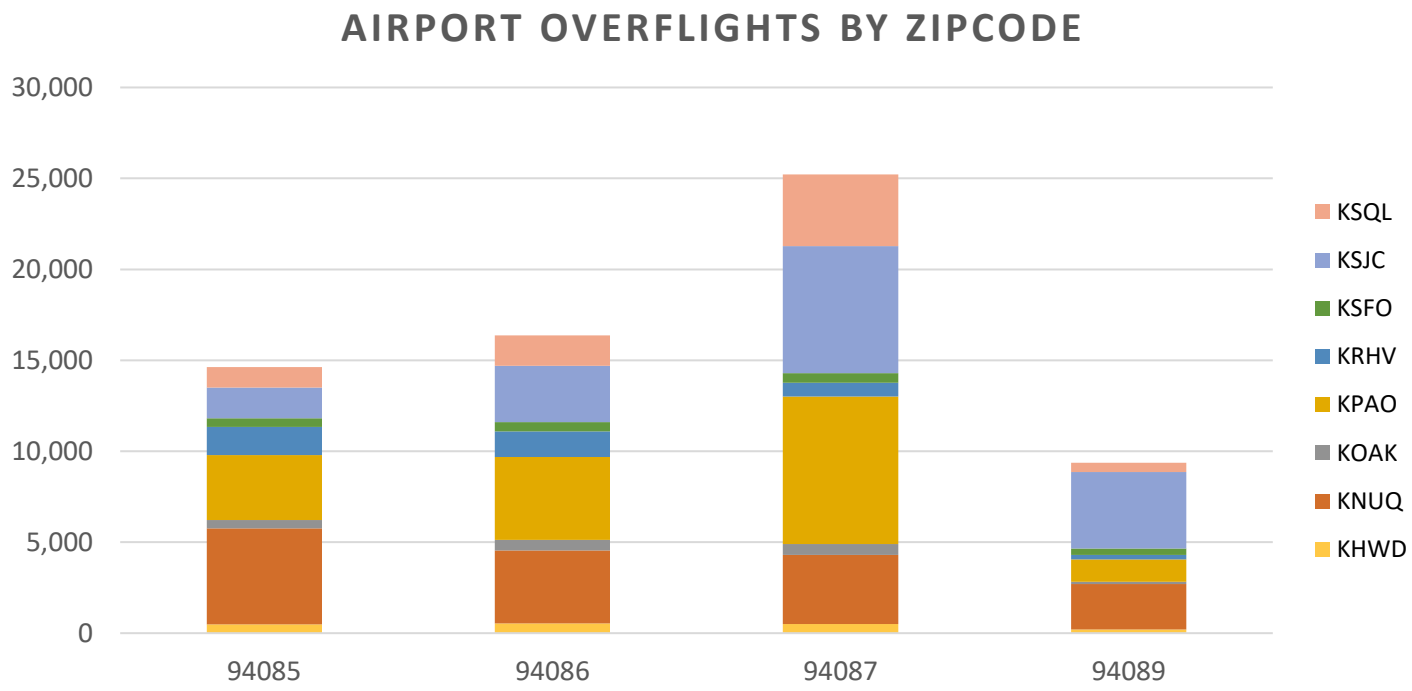
The ILS/Visual approach has a wide lateral footprint because the pilots are flying vectors (headings) under ATC's direction. The controller determines their turn onto the final approach. By contrast, the RNP approach is a precision instrument procedure that utilizes fixed GPS waypoints that must be precisely overflown and have very small lateral error tolerances.

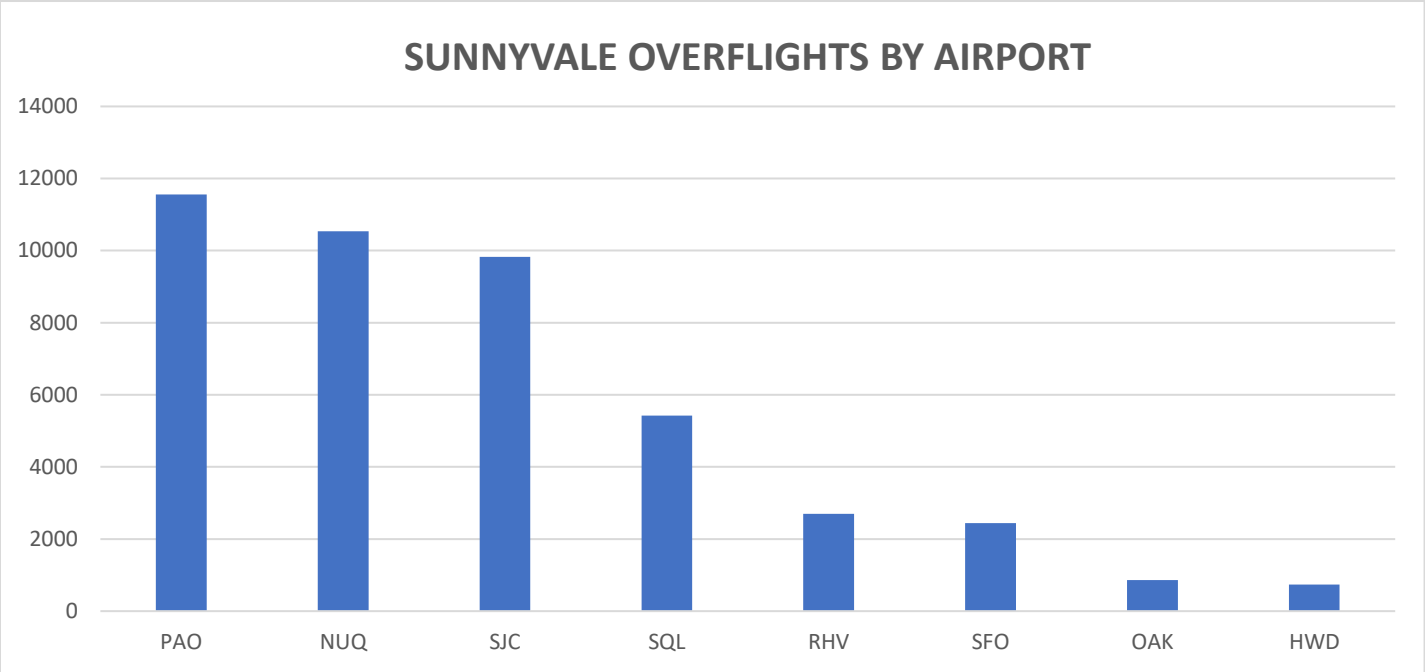
Because of the wide dispersion caused by the ILS/Visual approach, there is a measurable decrease in the intensity of noise events. However, the concentrated nature of the RNP approach means noise events are typically higher.




# **SUNNYVALE** OVERFLIGHT DATA FOR 2025

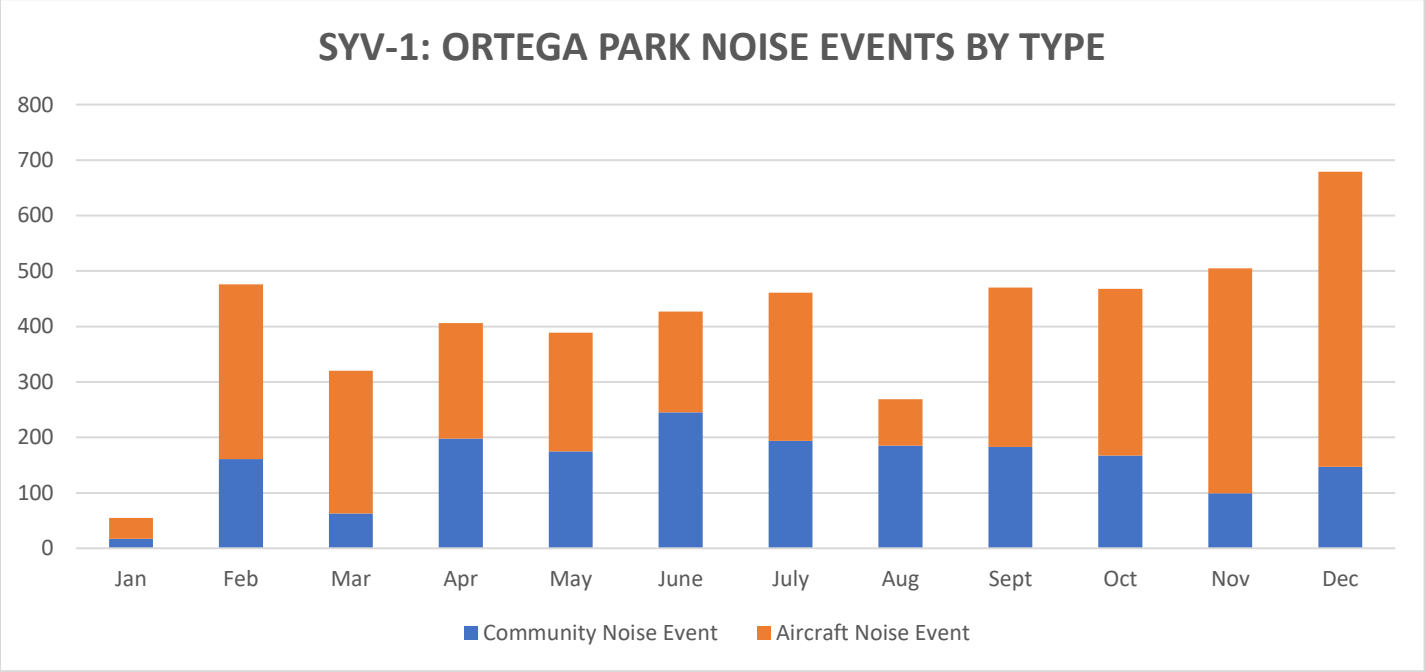
The data in this section quantifies overflights associated with each of the four zip codes that fall within the City limits, as well as the breakdown of airport of origin/destination. This is to discern trends over time.



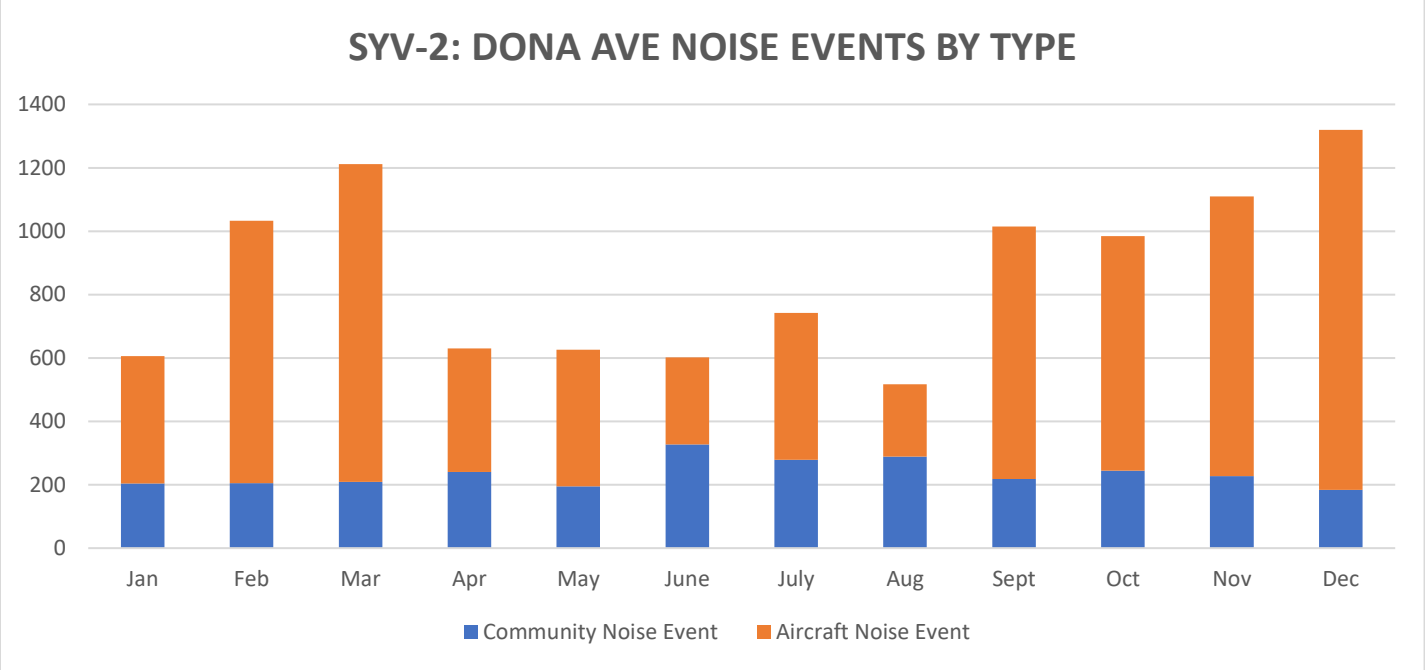


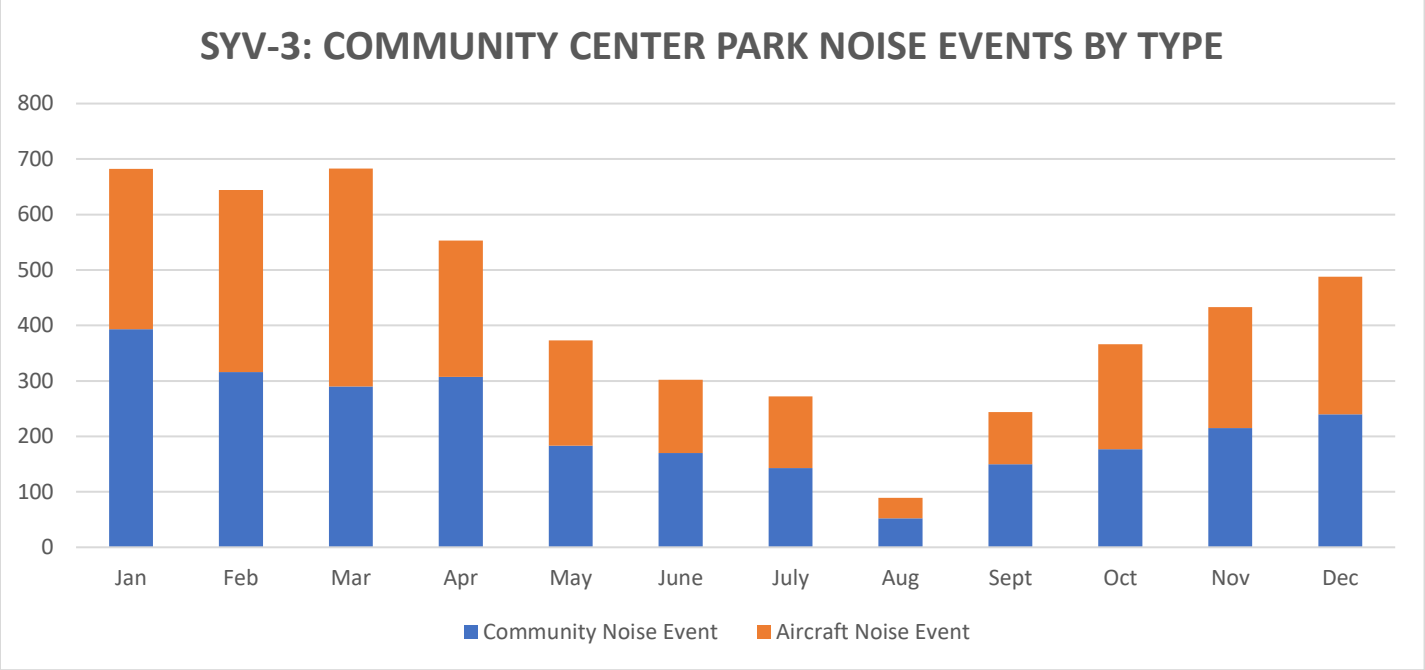

# **NOISE DATA** PER MONITOR FOR 2025

Noise monitors differentiate between noise events created by aircraft and non-aircraft (or community) sources. The first charts in this section shows the breakdown of these two types of noise events by month for each monitor. The second shows the total number of noise events for each monitor for each year since their construction.

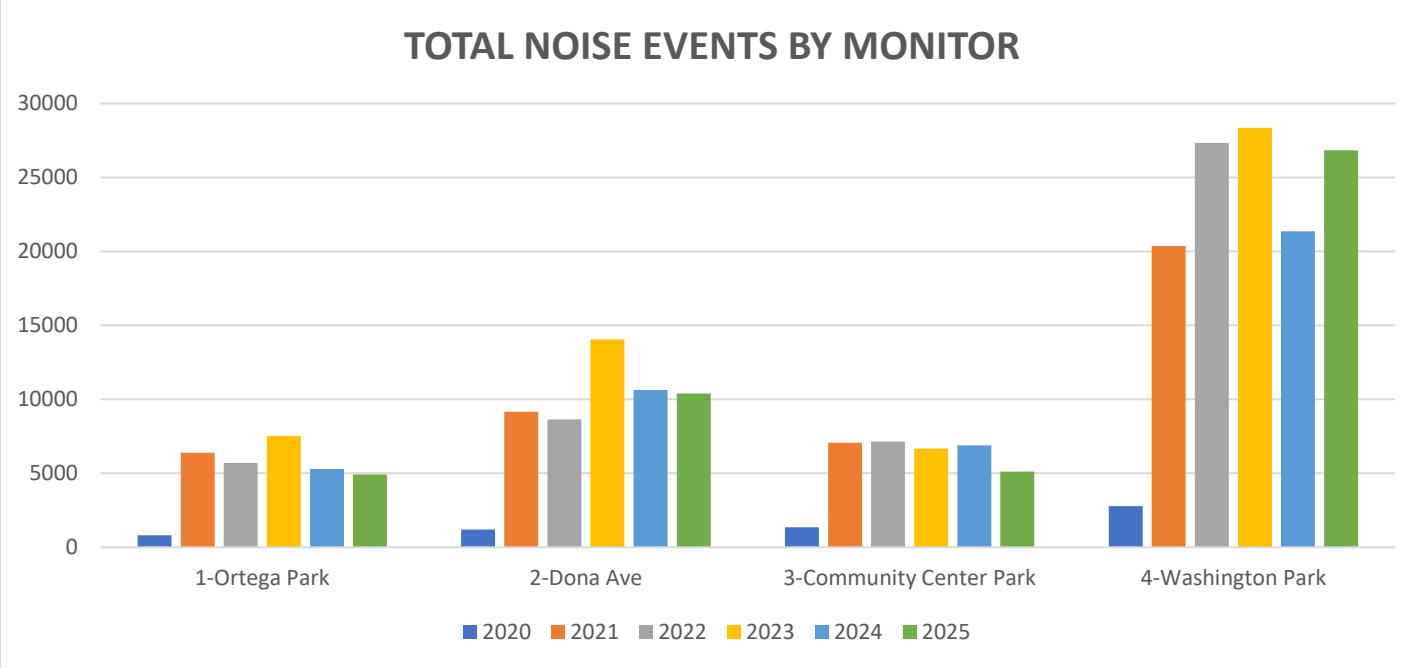



**Note:** The Ortega Park noise monitor was offline from January 1 to January 29, then again from February 28 to March 19. Noise events were not collected during this time.

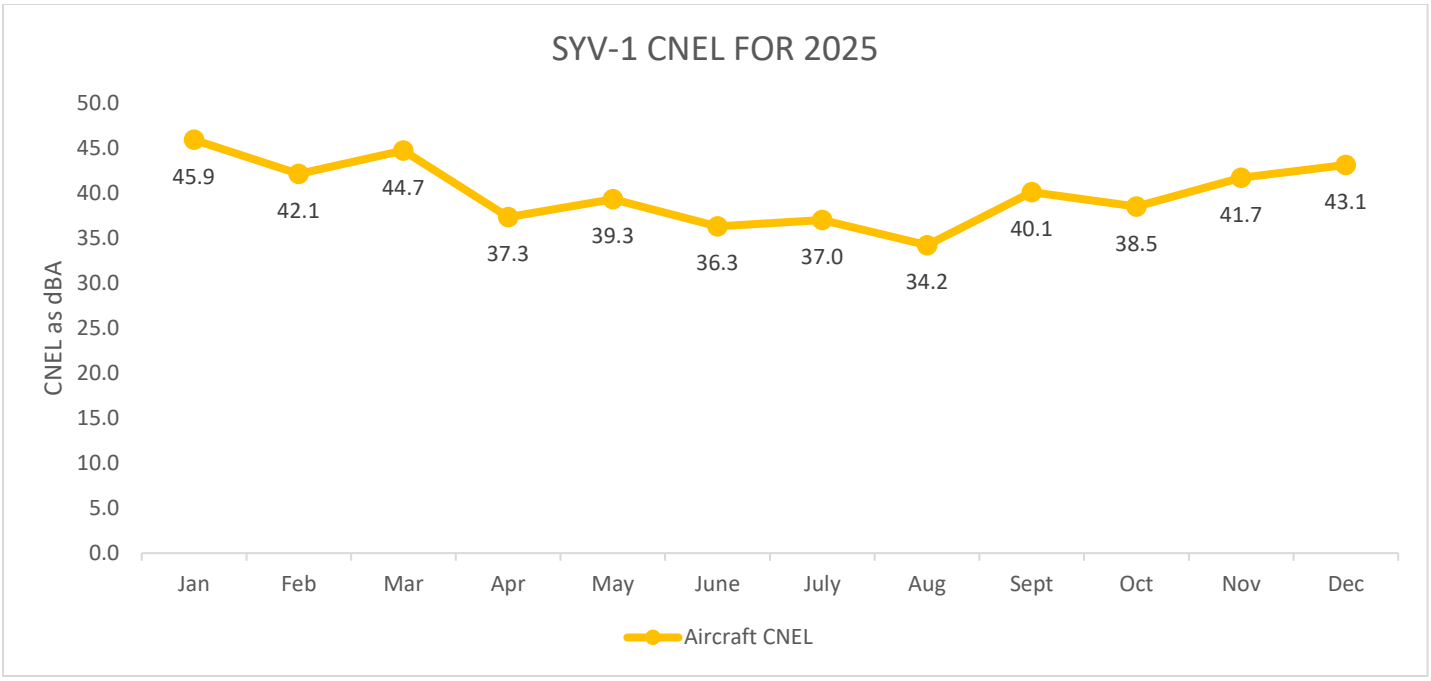


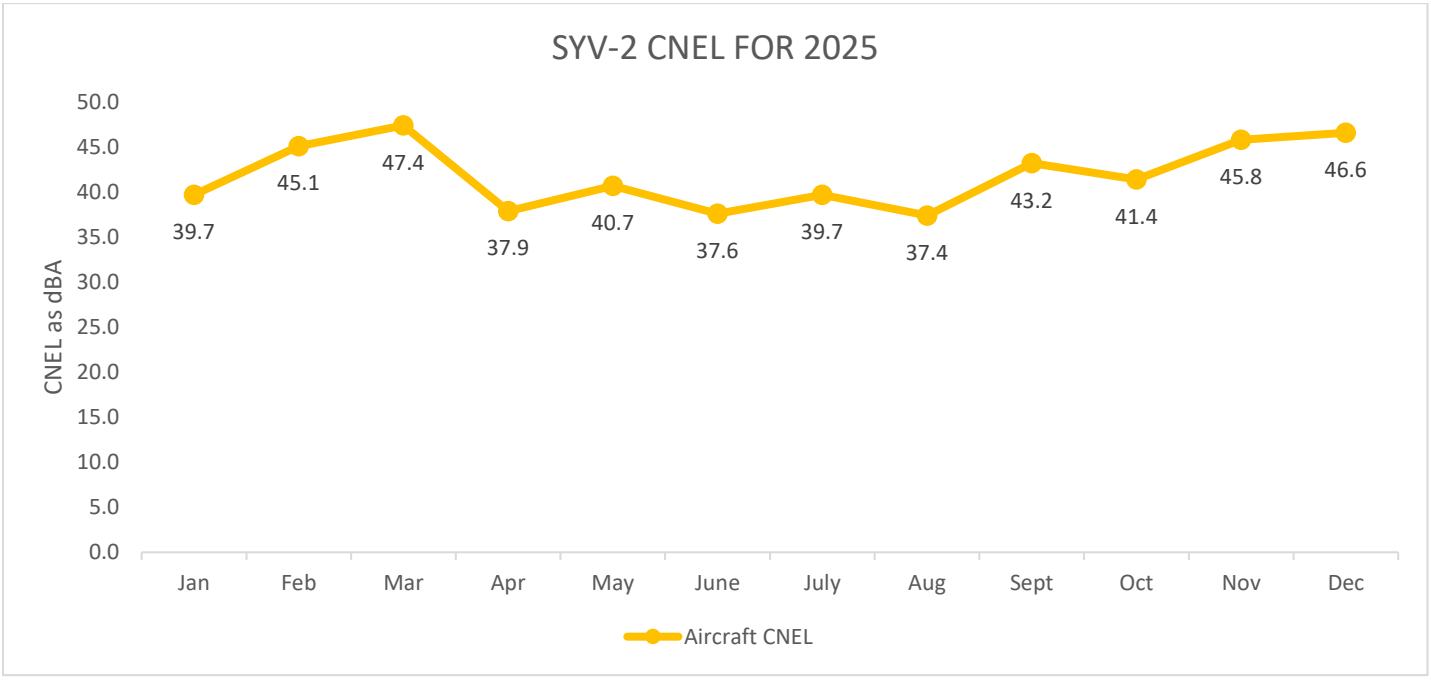



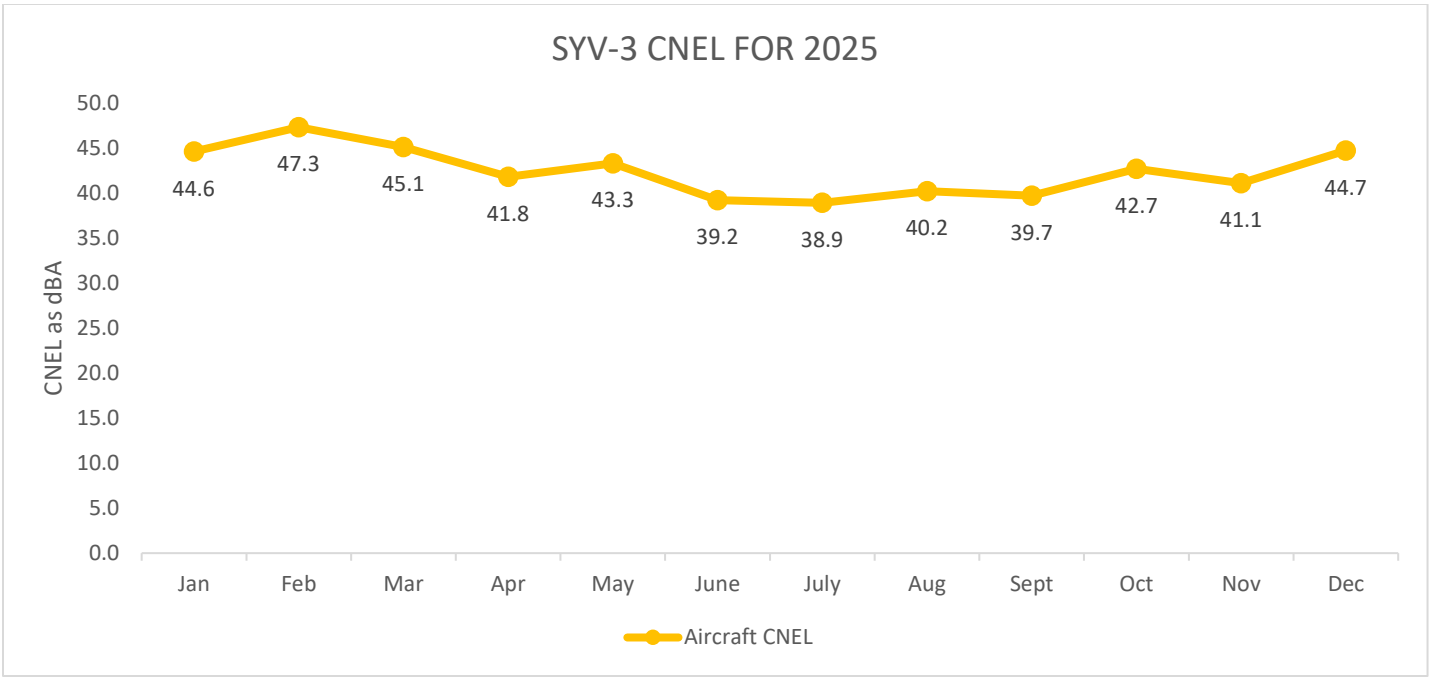

**Note:** The Community Center Park noise monitor was undergoing maintenance from July 31 to August 22. Noise events are incomplete during this time.

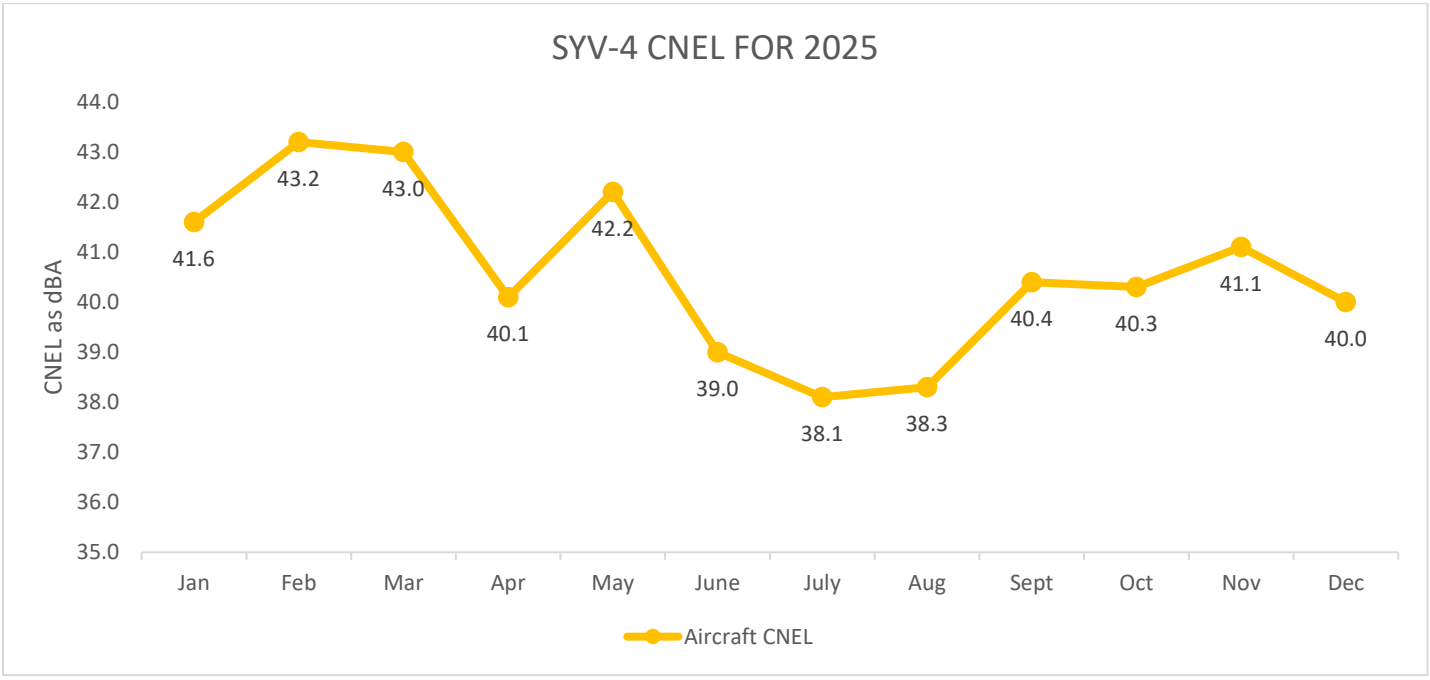




Community Noise Equivalent Level (CNEL) is the California state standard for airport noise land use compatibility. In addition to the penalty for the 10pm to 7am timeframe that DNL uses, CNEL adds a five (5) decibel penalty for the evening hours of 7pm to 10pm. For most airports, the contour of significance is the 65 CNEL contour. The below chart shows the CNEL per month for each monitor in 2025.


SYV-1 CNEL FOR 2025
CNEL as dBA
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
45.9
42.1
44.7
37.3
39.3
36.3
37.0
34.2
40.1
38.5
41.7
43.1
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
Aircraft CNEL


SYV-2 CNEL FOR 2025
CNEL as dBA
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
39.7
45.1
47.4
37.9
40.7
37.6
39.7
37.4
43.2
41.4
45.8
46.6
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
Aircraft CNEL


SYV-3 CNEL FOR 2025
CNEL as dBA
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
44.6
47.3
45.1
41.8
43.3
39.2
38.9
40.2
39.7
42.7
41.1
44.7
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
Aircraft CNEL


SYV-4 CNEL FOR 2025
CNEL as dBA
44.0
43.0
42.0
41.0
40.0
39.0
38.0
37.0
36.0
35.0
41.6
43.2
43.0
40.1
42.2
39.0
38.1
38.3
40.4
40.3
41.1
40.0
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
Aircraft CNEL