



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Aitken

SUBJECT: 2023 ANNUAL NOISE REPORT

DATE: February 19, 2024

Approved

Date

2/20/22

INFORMATION

Attached for distribution is the San José Mineta International Airport 2023 Annual Noise Report outlining air carrier activities related to the noise-based curfew in place at the Airport between January 1, 2023 and December 31, 2023.

In addition to the information provided in the attached report, the Airport publishes Quarterly Noise reports including noise exposure maps and Monthly Noise Summary data on the Airport's [website](#) for further explanation of air carrier activities and noise impacts to the community.

/s/

JOHN AITKEN, A.A.E.
Director of Aviation

For questions, please contact Rosalyn Bond, Deputy Director Operations, at rbond@sjc.org or 408-392-3510.

Attachment:

San José Mineta International Airport 2023 Annual Noise Report

San José Mineta International Airport 2023 Annual Noise Report



SJC 
**SAN JOSE
MINETA
INTERNATIONAL
AIRPORT**

Introduction and Purpose

The purpose of this annual report is to communicate the efforts undertaken by the City of San José (City) and San José Mineta International Airport (SJC or Airport) to minimize the Airport's noise impact on the surrounding communities. This report contains an explanation of the curfew and violation process, as well as a summary of records for the 2023 calendar year detailing the number and type of curfew violations and community noise complaints received.

Operational Restrictions and the Curfew

Chapter 25 of the San José Municipal Code details the City ordinances regarding Airport-related noise as well as the Airport curfew. The San José Municipal Code defines the curfew as, "...a time use restriction that limits the hours in which the city will allow certain aircraft operations to be conducted and that prohibits the scheduling and operation of certain aircraft operations at the airport during curfew hours." The weight-based curfew for the Airport was originally formulated in 1984, with subsequent revision to a noise-based curfew in 2003.

The noise-based curfew restricts flight activity into and out of the Airport between the local hours of 11:30 p.m. and 6:30 a.m. for aircraft operations by jet aircraft with Federal Aviation Administration certified and published Effective Perceived Noise level in decibels above 89.0. Aircraft types grandfathered in to be exempt from this noise level requirement, as well as those that are compliant with the curfew are listed for easy reference on the Schedule of Authorized Aircraft. This document is regularly maintained and posted to the "[Curfew](#)" page on the Airport's website. Boeing's MAX 8 and MAX 9 variants were added to the schedule in 2022.

Responsibility for monitoring and managing the airport noise and curfew programs at SJC belongs to the City's Airport Operations Division.

Types of Curfew Violation

Any jet aircraft operation whose Effective Perceived Noise level in decibels is above 89.0, is not on the Schedule of Authorized Aircraft, and that departs from or arrives at the Airport between the local hours of 11:30 p.m. and 6:30 a.m. is defined as an intrusion. An intrusion is then further defined as being either exempt (from citation) or a violation. An exempt intrusion is one with documentation provided by the operator explaining why it occurred during curfew hours due to circumstances outside of the operator's control (e.g. air traffic control delays, weather delays, etc.) which are referred to in the San José Municipal Code as "Force Majeure" events. A violation is defined as an intrusion that did not have acceptable documentation provided justifying its occurrence during curfew hours. Fines for violations are \$2,500 each.

Actions Taken by Airport Operations Department

Throughout the year, Airport Operations staff publishes Monthly Noise Summary charts on the Airport's website that detail the total number of curfew-compliant and non-compliant operations as well as the number of noise complaints submitted. Additionally, Airport Operations staff use data from the Federal Aviation Administration along with data from an airport noise monitoring system to compile a Quarterly Noise Report and Noise Exposure Map for the public. These documents are posted to the "Noise Reports" page on the Airport's [website](#). The noise monitoring system mentioned above was originally installed in November of 1992, with updated hardware and software installed more recently. The system records and measures aircraft noise levels at strategic locations in noise-sensitive locations under the aircraft arrival and departure paths. In 2020, the Noise Office upgraded the modems used by these monitors to ensure their continued operation and improve reliable connectivity into the future.

The noise system also compiles flight track and flight identification information, noise complaints and complainants' addresses, and noise events. The quarterly noise monitoring and reporting is conducted in compliance with state regulations.

Additionally, as of early 2021, server components of the noise monitoring system have transitioned to being vendor-hosted versus on-site at the Airport. This should improve overall system reliability and allow for quicker implementation of new features to manage and respond to complaints, and better analyze aircraft operations more efficiently.

Airport Operations staff continually investigate and respond to noise complaints, track flight activity, review curfew operations for compliance with the San José Municipal Code and assess fines as necessary. Airport Operations staff also participate in Airport Commission meetings to communicate the findings contained in the Monthly Noise Summary Charts and to respond to questions from residents of surrounding communities.

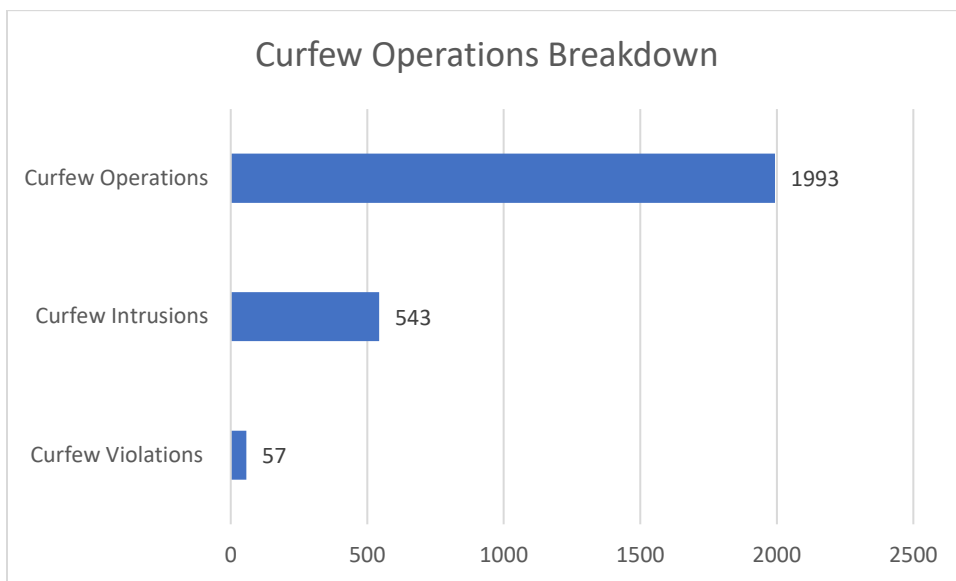
In 2020, a new noise abatement page geared towards General Aviation pilots was added to the Airport website with the goal of educating that community on best practices and procedures to minimize their noise impact to the surrounding residents.

Airport staff review airline-provided justification for curfew violations, and work with aircraft operators to minimize the number of non-compliant operations during curfew hours, thereby reducing the disturbance to the public. The Airport Operations staff strives to take a proactive approach to managing the noise associated with SJC and the need to be respectful neighbors to the surrounding residential communities.

2023 Operations During Curfew

In calendar year 2023, there were 1993 commercial or cargo jet operations during curfew hours out of the 158,457 total operations for the Airport (approximately 1.26%). For comparison, calendar year 2022 had 1661 curfew operations out of the 158,974 total operations for the Airport (approximately .73%). Of the 1993 curfew operations in 2023, 543 were found to be intrusions, which represent approximately .34% of all operations at SJC. Of those 543 intrusions, 57 were found to be violations and were cited; these violations represent approximately .04% of all operations at SJC which results in a curfew compliance rate of over 99.96%.

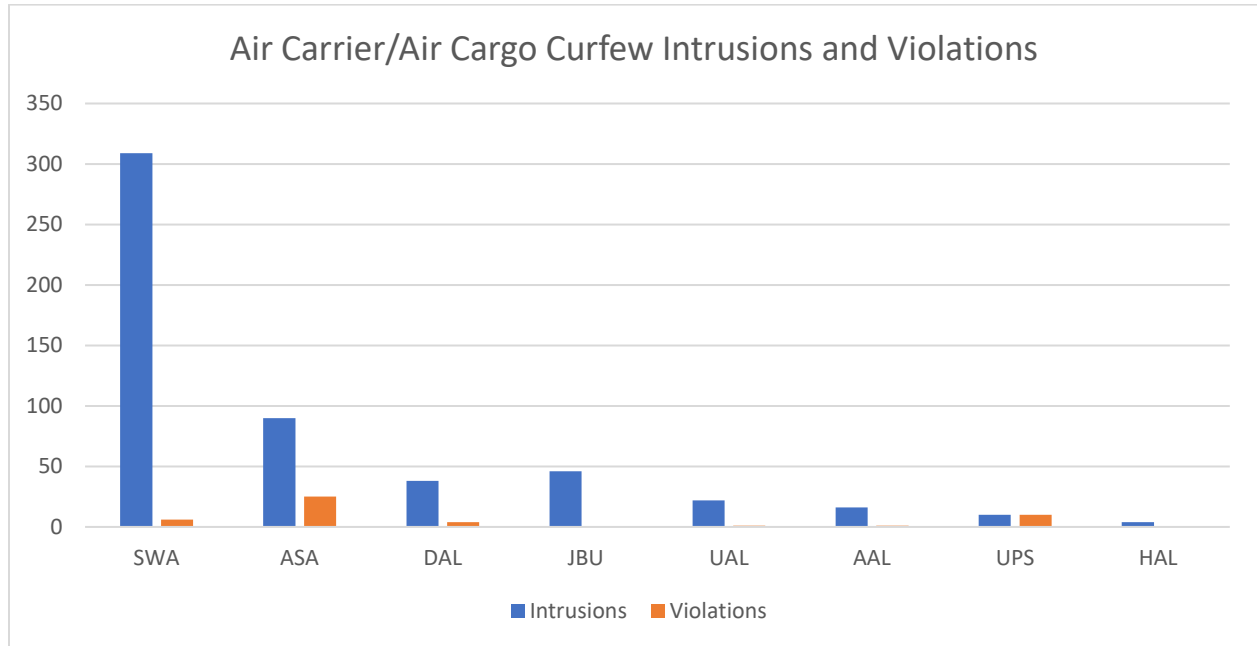
The graph below shows the curfew operations breakdown for 2023.



In 2023, the Airport hosted 11 commercial air carrier tenants and two air cargo tenants. Of those 13 total operators, FedEx, Volaris, British Airways, Spirit and ZIPAIR committed zero curfew intrusions.

In 2023, Southwest Airlines (SWA), Alaska Airlines (ASA), jetBlue Airways (JBU), United Airlines (UAL) and Delta Air Lines (DAL) were responsible for the majority (92% combined) of curfew intrusions. The following chart and table depict the commercial and air cargo carriers’ annual intrusions and related violations for the calendar year 2023.

The graph below shows the air carrier and air cargo intrusions and violations for 2023.



The table below shows the air carrier and air cargo intrusions and violations for 2023.

SJC Air Carrier/Cargo Curfew Data		
Operator	Intrusions	Violations
Southwest Airlines	302	6
Alaska Airlines	90	25
Delta Air Lines	38	4
JetBlue Airways	46	0
United Airlines	22	1
American Airlines	16	1
United Parcel Service	10	10
Hawaiian Airlines	4	0
TOTAL	528	47

American Airlines and Alaska Airlines incurred violations for early departures. The flights were scheduled to depart around the end of the nightly curfew (6:30 a.m.) but took off prior to that time. Management of all airlines is aware of and has made efforts to educate their employees on the curfew program to prevent future occurrences. While not formally obligated to enforce the restrictions of the curfew program, Air Traffic Control has historically reminded pilots about the curfew and has been asked to continue doing so when feasible.

United Parcel Service informed Airport Operations staff that due to the annual increase in holiday-related packages through the Bay Area, as in 2021 and 2022, it would be adding additional arrivals during the curfew hours between 4:00 a.m. and 5:00 a.m. Airport Operations staff reminded United Parcel Service of the Airport’s curfew and commitment to minimizing its noise impact on the surrounding communities. This year, United Parcel Service again chose to hold most departures until the curfew time expired, but still committed ten violations, for which it was cited.

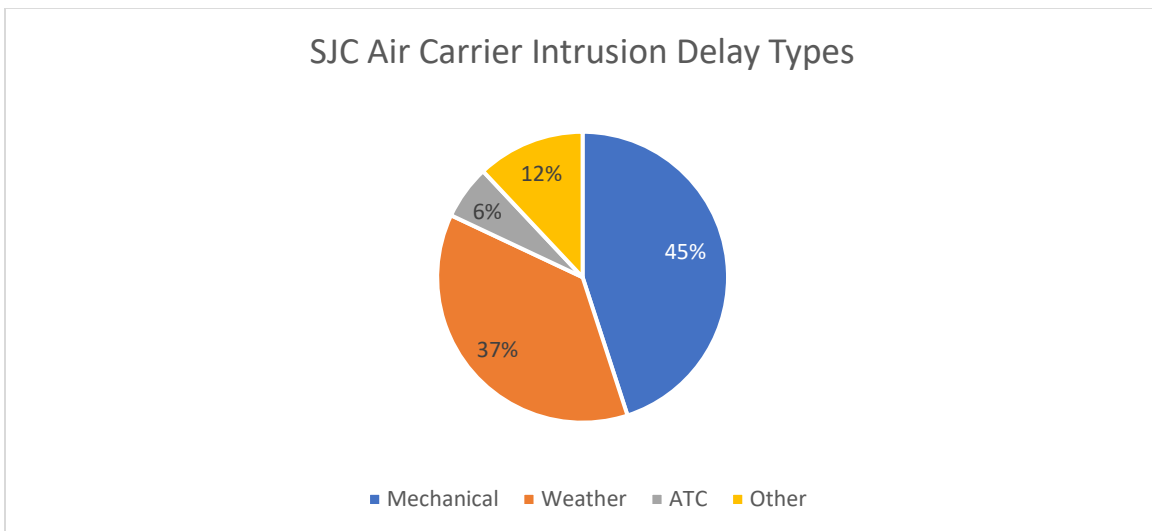
The table below shows the various charter operators who committed curfew intrusions for 2023.

Charter Operator	Intrusions	Violations
Swift Air/ iAero Airways	7	7
Atlas Air	1	1
Sands Aviation	1	1
Sun Country	2	2

In general, the plurality of the delays are due to poor weather, Air Traffic Control congestion or mechanical issues that are experienced by the specific aircraft flying throughout the day on its given route. Oftentimes, the original aircraft scheduled to operate a flight will be taken out of service for maintenance and another will be substituted. Occasionally there are also delays for specific incidents, such as required security sweeps, power outages, or when a crew member becomes unavailable.

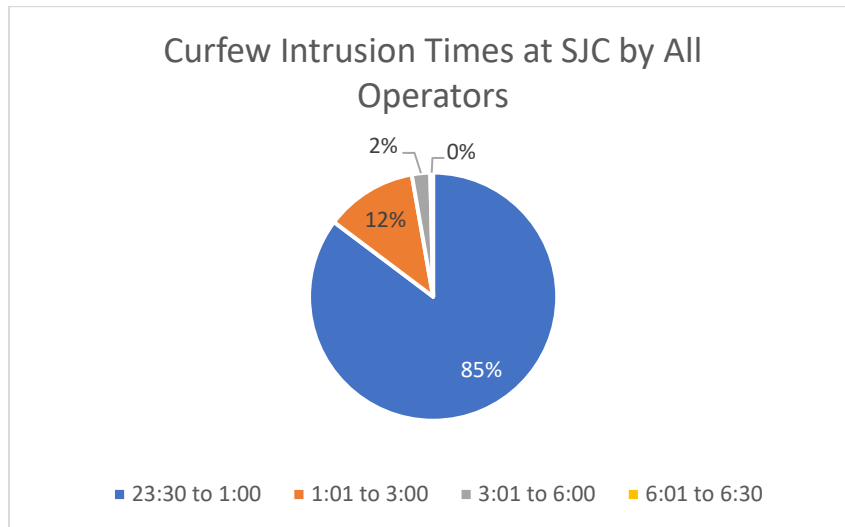
The next chart illustrates the breakdown of the proportion of flights affected by weather, mechanical, air traffic control, or other delays. Some intrusions were not caused by a delay, and they are noted as “None” and included in the Other category. Not every intrusion notice sent by the Airport was responded to. In these instances, citations were automatically generated.

The chart below shows the air carrier intrusion delay types breakdown for 2023.



Most curfew intrusions occur during the first 90 minutes of its onset, with a dramatic fall off after 1:00 a.m. This indicates that aircraft operators are attempting to serve their passengers while also creating as minimal of a noise impact as possible by adhering to the curfew restriction period. Intrusions occurring between 6:00 and 6:30 a.m. tend to be early departures.

The chart below shows the intrusion times breakdown for 2023.



Engine Runs

In addition to takeoff and landing restrictions at the Airport, Airport Operations staff also limit maintenance and engine run-ups during the curfew hours to help minimize the noise generated during curfew hours. If an aircraft operator must perform an engine maintenance run-up to prepare for a ~06:30 a.m. flight, Airport Operations will direct the aircraft to the north end of the airfield to avoid generating noise towards the surrounding residential areas at the southeast end of the airfield. Those engine maintenance run-ups can be performed as early as two hours before the scheduled departure time, as published in the San José Municipal Code.

Airport Operations staff record the number of high (>90%) or full-power engine run-up maintenance checks performed during curfew hours. In 2023, one high or full-power engine maintenance run-ups were performed during curfew hours.

Airport Noise Complaints

Like many other airports in noise sensitive communities, the Airport collects noise complaints from residents of the City well as the surrounding municipalities through the “WebTrak” [webpage](#), phone messages, e-mails, and a dedicated complaint form hosted on the Airport’s [website](#). Webtrak allows residents to monitor a slightly delayed live feed of aircraft operations in the south Bay Area. Community members regularly use this tool to investigate deeper into noise disturbances and report them to the Airport’s Noise Management Office.

Airport staff responds to curfew-related complaints whenever possible by including the reason the flight in question operated during curfew hours, an explanation of the approach or departure procedures to the Airport, and acknowledgement of whether a late-night operation was a curfew violation (and therefore cited). Additionally, responses from Airport staff may include whether a flight was operating at another airport in the area, or its status as an emergency response, police, or military aircraft.

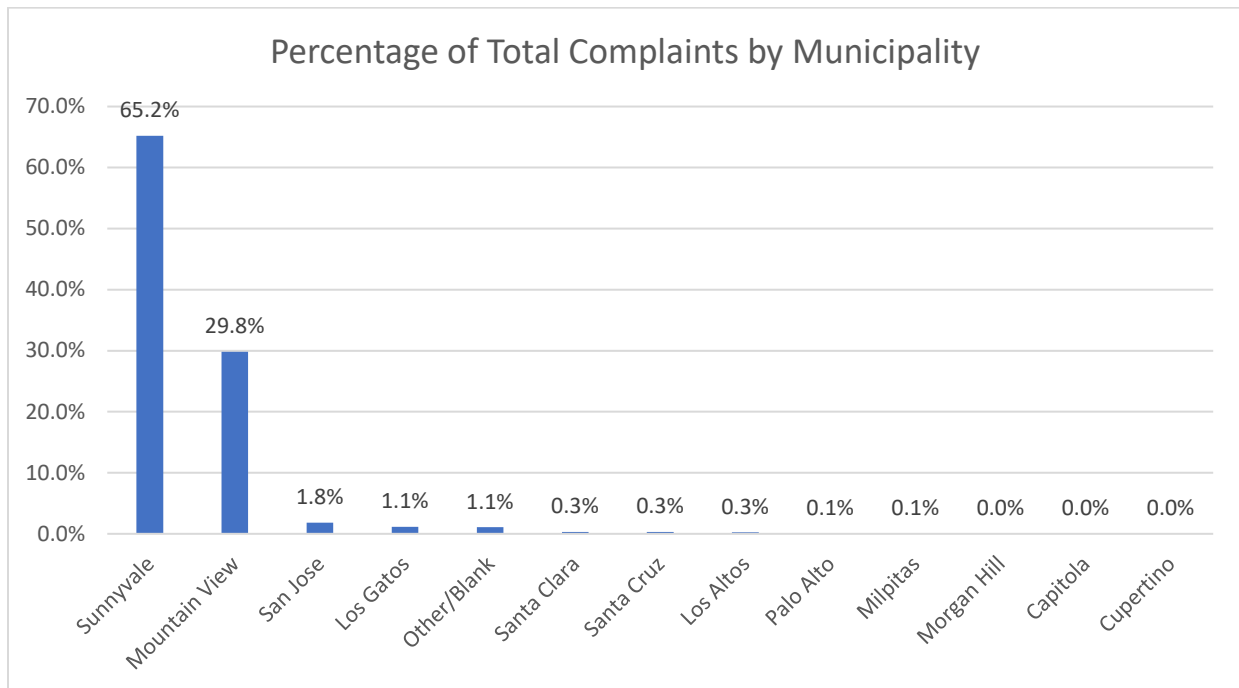
In 2023 there were a total of 16,581 complaints submitted by 267 individual residents throughout the area. This group of 267 submitters represents approximately .0274% of the total San José population (971,233).

This compares to a total of 11,357 complaints made by 260 individual residents in 2022. Of the 2023 complaints, just over 68.5% (11,699) were submitted by five individuals, which means most complaints were from only 1.9% of the total submitters. The top reporter (a Mountain View resident) submitted 4,916 complaints in 2023.

The table below shows the complaints received by the top submitters for 2023.

Submitters	Proportion of Complaints Submitted
Top 5	70%
Top 10	82%
Top 20	91%
Top 30	94%

The graph below shows the complaints received by municipalities for 2023.

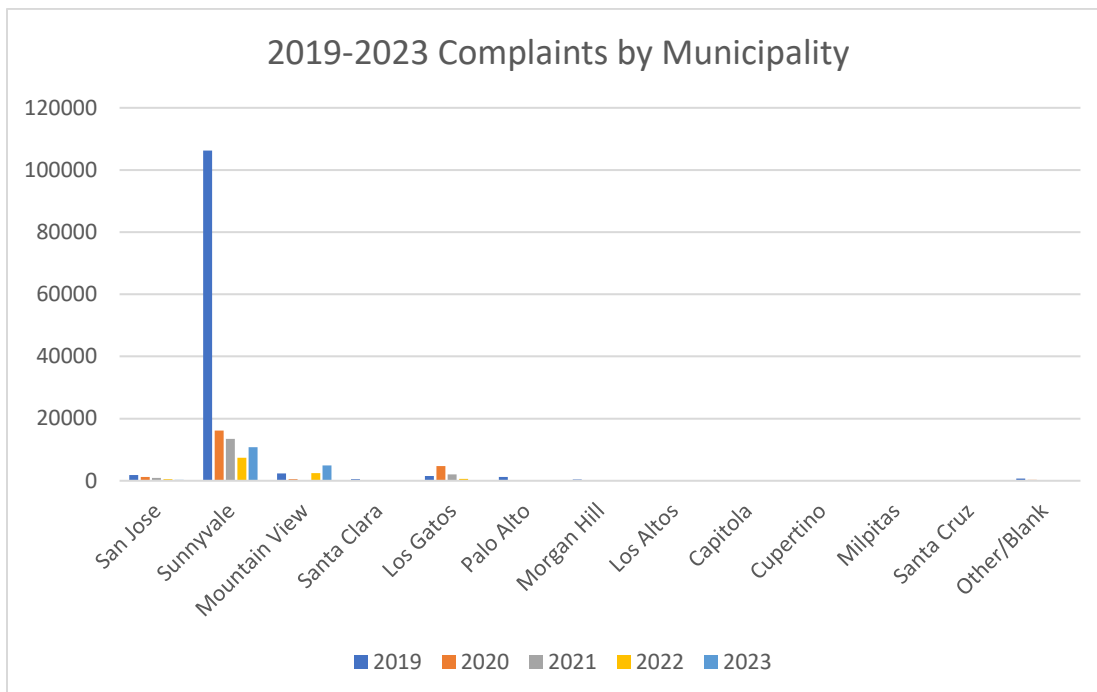


Sunnyvale residents continued to submit a significantly higher amount of noise complaints than other neighboring cities. In 2023, there were 10,808 complaints submitted by Sunnyvale residents, which represents an 45% increase over 2022, in which they submitted 7,403 complaints. Complaints from San José residents continue to represent a small proportion (1.8%) of the overall total.

The table below shows the complaints by Municipalities between 2019 and 2023.

2019 - 2023 Complaints by Municipality					
	2019	2020	2021	2022	2023
San Jose	1808	1252	896	546	304
Sunnyvale	106211	16149	13481	7403	10808
Mountain View	2346	533	227	2442	4943
Santa Clara	517	87	208	139	52
Los Gatos	1550	4740	2085	565	186
Palo Alto	1235	243	90	10	44
Morgan Hill	391	0	3	0	0
Los Altos	165	98	151	51	47
Capitola	122	40	68	22	0
Cupertino	53	5	20	36	0
Milpitas	51	6	16	14	13
Santa Cruz	43	18	17	10	50
Other/Blank	749	336	140	155	181
TOTAL	115241	23507	17402	11393	16581

The graph below shows the complaints received by municipalities between 2019 and 2023.



South Flow Operations

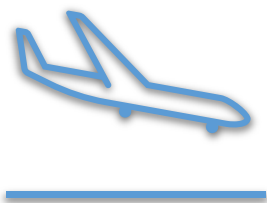
Commonly during times of poor weather, arriving flights at SJC will land from the north on Runways 12R or 12L instead of approaching the airfield from the south and landing on Runways 30L or 30R. When the Airport operates in “South Flow” conditions, the communities in Sunnyvale, Santa Clara, Cupertino, Mountain View, and Palo Alto become more impacted by SJC arrivals than they are under normal “prevailing weather” operating conditions. Similarly, residents of San José living south of the Airport are impacted due to the change in departures direction and resulting increase in noise levels from those aircraft (compared to quieter noise levels from arriving aircraft). In 2023, the Federal Aviation Administration utilized south flow operations for approximately 17% of all operations throughout the year, compared to 2022, when 7% of traffic operated in south flow.

The table below shows the south flow summary data between 2019 and 2023.

2019 - 2023 South Flow Summary					
	Operations	Days*	South Flow Days*	South Flow Operations	Avg SF Days/Month*
2019	18%	32%	115	34515	9.58
2020	9%	21%	78	10101	6.5
2021	12%	25%	91	14715	7.6
2022	7%	29%	105	10504	8.75
2023	17%	59%	215	27434	17.92

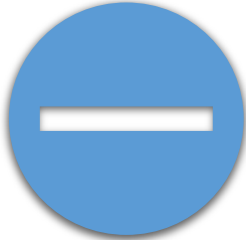
*At least 10+ Runway 12L/12R operations on that day

San José Mineta International Airport 2023 Annual Noise Report Summary



Total Operations
158,457 (-0.33%*)

Curfew Intrusions
543 (-11.42%*)



Curfew Violations
57 (+46.15%*)

Complaints
16,581 (+46%*)



*Year over Year