

Norman Y. Mineta
San Jose International Airport
2015 Annual Noise Report



NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT
SILICON VALLEY'S AIRPORT

Annual Noise Report for Norman Y. Mineta San José International Airport

Introduction and Purpose

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

Operational Restrictions and the Curfew

San Jose Municipal Code (SJMC) Chapter 25 details the local ordinances related to airport-related noise and the Airport curfew, including the definitions and details of the airport curfew. The curfew is defined 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 revisions to a noise-based curfew in 2003. The revisions also allowed for monetary fines for curfew violations and included the newer business jet aircraft.

The noise-based curfew restricts flight activity into and out of the Airport between the hours of 11:30 PM and 6:30 AM for aircraft operations by aircraft with FAA certified and published noise impacts greater than 89.0 dB.

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

Types of Curfew Violations

Any aircraft operation with a noise impact greater than 89 dB, and not on the grandfathered list of authorized aircraft, that utilize the Airport between the hours of 11:30 PM and 6:30 AM is defined as a non-compliant operation. A non-compliant operation is then further defined as being either an intrusion or a violation. An intrusion is defined as a non-compliant operation that was documented to occur during curfew hours due to circumstances outside of the aircraft operators' control (e.g. air traffic control delays or weather delays). A violation is defined as a non-compliant operation that did not have acceptable documentation justifying the operation to occur during curfew hours.

In order for a non-compliant operation to be categorized as an intrusion rather than a violation, the operator must communicate the extenuating circumstances to the Airport. If those circumstances are accepted by the Airport, the operation will be categorized as an intrusion and no fine will be levied. Fines for non-compliant violations are \$2,500 per occurrence.

In addition to take off and landing restrictions at the Airport, the Airport Operations staff also limit maintenance and engine run-ups during the curfew hours to help limit the noise generated during curfew hours. If an aircraft operator must perform engine maintenance run-ups to prepare for a 6:30 AM flight, Airport Operations will move the aircraft to the north end of the airfield and away from

surrounding residential uses at the southeast end of the airfield. Those engine maintenance run-ups can be performed as early as 2 hours before the scheduled departure, as published in SJMC.

Actions Taken by Airport Operations Department

Throughout the year, Airport Operations staff publishes the Monthly Noise Summary Charts on the Airport's website which includes the number of operations (both compliant and non-compliant) and the number of noise complaints received each month. Additionally, Airport Operations staff uses data from the Federal Aviation Administration (FAA), along with data from an airport noise monitoring system to compile a Quarterly Noise Report for concerned residents, as well as other City, County and State officials.

The noise monitoring system mentioned above was originally installed in November 1992, with updated hardware and software installed more recently. The system records and measures aircraft noise levels at strategic locations in noise-sensitive locations strategically located under the aircraft arrival and departure paths. The noise system also compiles flight track and flight identification information, noise complaints and complainants' addresses, noise events and operations in violation of curfew restrictions. The quarterly noise monitoring and reporting is conducted in compliance with State regulations.

Airport Operations staff continually investigate and respond to noise complaints, track flight activity, review curfew operations for compliance with the SJMC and assess fines as necessary. Airport Operations staff also participate in Airport Commission meetings to communicate the findings contained in the monthly noise summary chart and respond to questions from residents of neighboring communities.

Airport staff also review airline provided justification for curfew violations, and work with aircraft operators to minimize the need to fly during curfew hours or disturb the public. The Airport Operations staff strives to take a proactive approach to managing the noise generated by SJC. Staff meets regularly with airline representatives to discuss the curfew program at SJC and the need to be a good neighbor to the surrounding community.

2015 Air Carrier Operations during Curfew

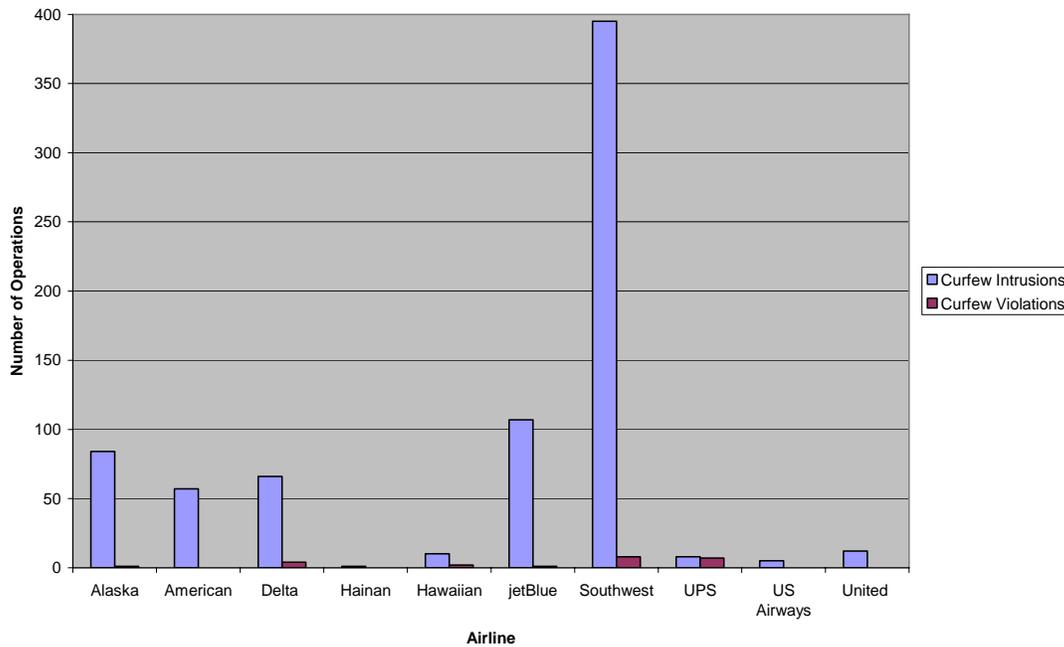
In calendar year 2015, 2,450 operations out of the total 134,969 operations occurred during the curfew hours of 11:30 PM to 6:30 AM (approximately 2%). For comparison, calendar year 2014 had 2,264 curfew operations out of the total 134,891 operations (approximately 2%)

In 2015, the Airport had 11 commercial air carrier tenants and 2 cargo air carrier tenants. Of those 13 operators, All Nippon Airways, Federal Express and Volaris Airlines each had zero curfew intrusions and violations.

In 2015, Southwest Airlines and jetBlue Airways were responsible for the majority (66%) of curfew violations. The majority of these violations are attributed to Southwest Airlines' scheduled arrivals during the 10:00 PM to 11:00 PM hour and jetBlue Airways' daily scheduled departure at 11:00 PM.

The figure and table below depict the commercial and air cargo carrier's annual violations and intrusions for the calendar year of 2015.

Curfew Intrusions vs. Non-Compliant Violations, CY 2015



Airline	Intrusions	Violations	Airline	Intrusions	Violations
Alaska	84	1	jetBlue	107	1
All Nippon	0	0	Southwest	395	8
American	57	0	UPS	8	7
Delta	66	4	US Airways	5	0
FedEx	0	0	United	12	0
Hainan	1	0	Volaris	0	0
Hawaiian	10	2			

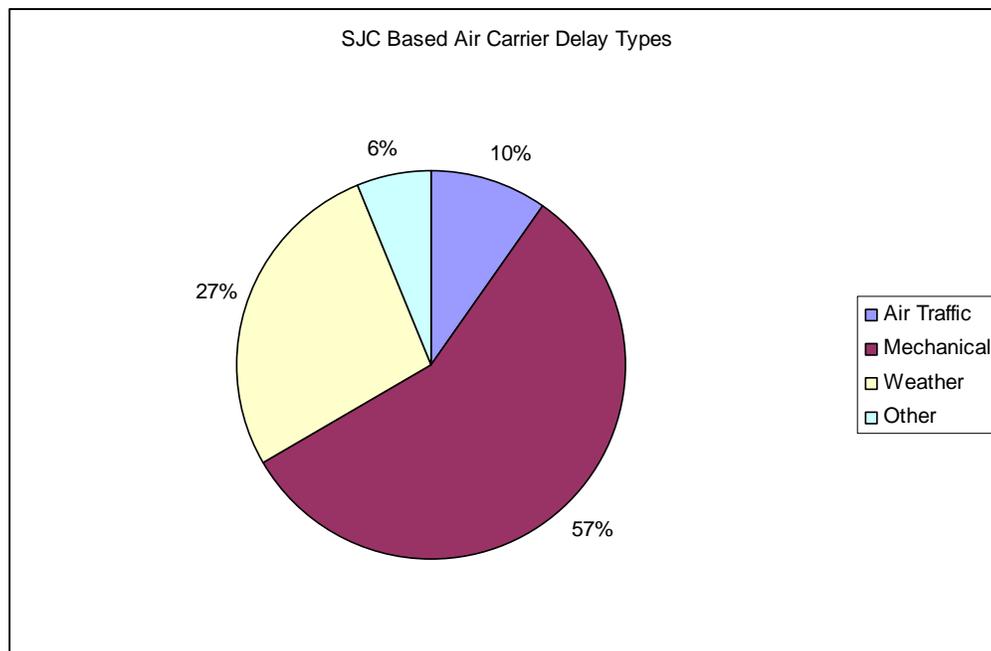
During 2015, approximately 3% of the curfew intrusions were deemed violations by Airport staff and incurred the monetary fine of \$2,500, receiving the violation paperwork.

For **Southwest Airlines**, the majority of curfew violation operations occurred due to departures from SJC occurring prior to the end of the curfew restrictions. Two fines were levied due to customer service boarding delays at other airports or holding the flight departure time for connecting passengers.

For **United Parcel Service (UPS)**, the carrier informed Airport Operations staff that due to a forecasted increase in holiday packages outbound from the Bay Area, the carrier would be adding early morning service scheduled to depart before 6:30 AM. The Airport staff communicated the concerns of the community with UPS staff both locally and at their headquarters. A written letter was sent from the SJC Director of Aviation concerning the scheduled times of the increased service. Although UPS ultimately revised their schedule to include fewer operations than originally scheduled, there were still 7 operations cited as violations.

For **Delta Airlines**, the carrier introduced new service with a non-compliant aircraft for an early morning departure. Despite constant reminders to the local airline management team, the flight crews were departing from the 555 Airport prior to the end of the curfew restrictions and therefore were subject to curfew violations.

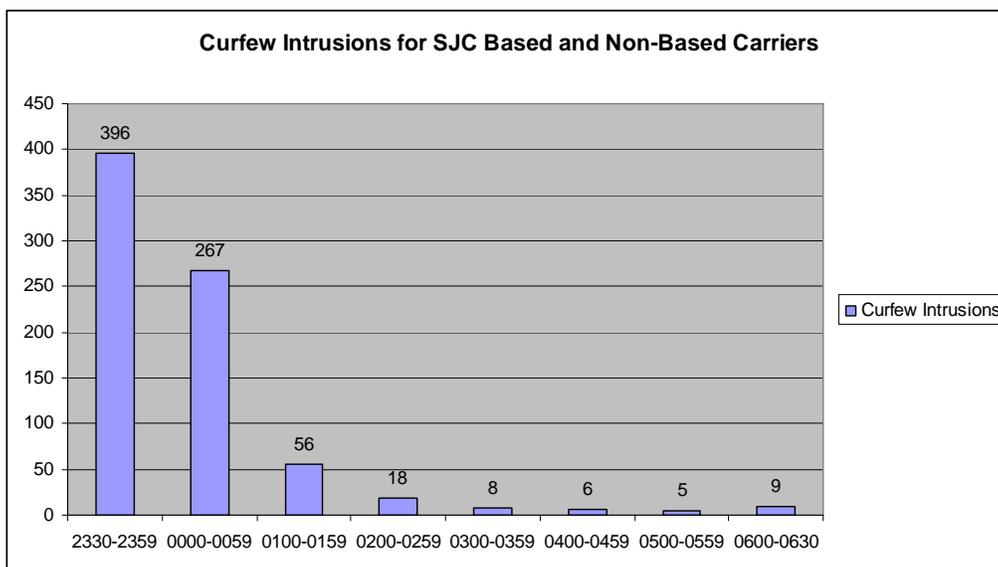
For the SJC-based air carriers, a majority of the curfew intrusions occurred due to weather or mechanical delays at their point of origin. The following chart illustrated the breakdown of how many flights were affected by weather, mechanical delays, air traffic delays or other.



The table below shows that all of the charter operations which occurred during curfew hours incurred the monetary fine and received violation paperwork from the Airport staff, with the exception of the two unscheduled diversions to San Jose due to weather in San Francisco (Air Canada) and one NHL charter departing late due to a medical emergency.

Airline	Intrusions	Violations
Air Canada	2	0
Diversions from SFO		
Atlas Air	2	2
NHL Charter		
NCAA Charter		
Detroit Red Wings	1	1
NHL Charter		
Eastern Airlines	1	1
NHL Charter		
Jet Aviation	1	1
Private Flight		
Kaiser Air	6	6
NHL Charters		
Miami Int'l	1	0
NHL Charter		
Swift Air	3	3
NHL Charters		
Soccer Team		

Of all curfew intrusions, a majority of the intrusions occur during the first 90 minutes of curfew (see table below). This demonstrates that the air carriers are attempting to balance serving their customers with minimizing impacts to the communities surrounding SJC.



Engine Runs

Airport Operations staff record the number of engine maintenance checks performed during curfew hours which require a full engine run-up. In 2015, SJC did not have any operators perform a maintenance full engine run-up during curfew hours.

Airport Noise Complaints

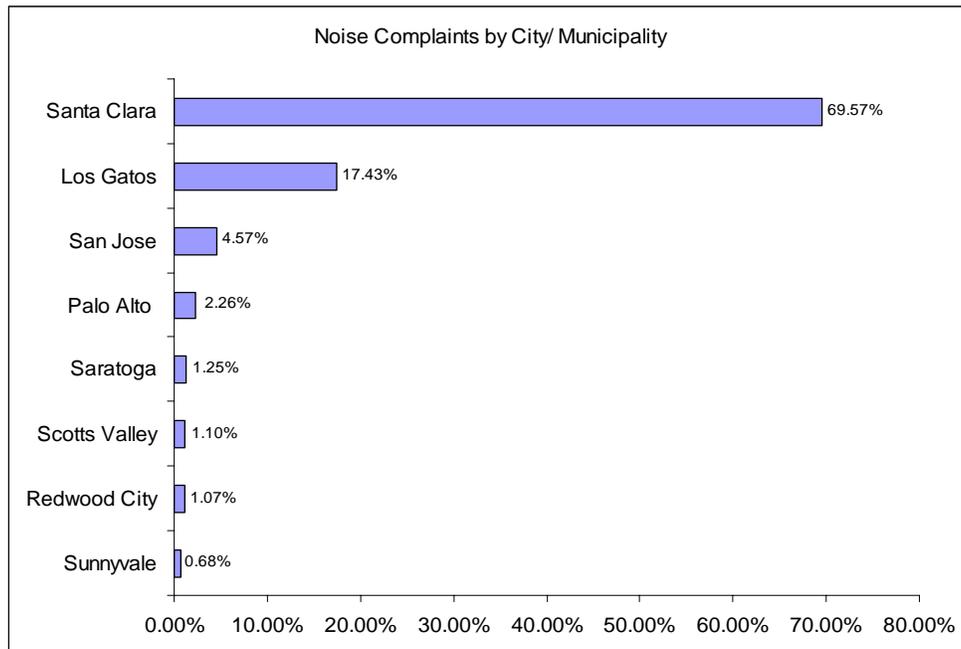
Like many other airports in noise sensitive communities, the Airport collects noise complaints from residents of the City of San Jose as well as surrounding municipalities through a WebTrak system. This system allows for a concerned resident to load a slightly-delayed map of air traffic in the south bay area, research which aircraft could be causing the disturbance, and submit a noise complaint to Airport staff.

Airport staff also receives noise complaints or questions through email.

Typically, Airport staff responds to these complaints by including the reason the aircraft in question passed overhead or nearby, an explanation of approach or departure procedures to the airport, and acknowledgement of whether or not a late night operation was a curfew violation. Additionally, responses from Airport staff may include whether a flight was flying to or from another area airport, whether the flight was an air ambulance flight or law enforcement agency.

There were a total of 5,351 complaints submitted by 405 individual residents throughout the area. This is a 73% increase over 2014 complaints (2,963 complaints). These complaints are based on aircraft operations that are associated with SJC, but also operations to and from San Francisco International Airport, Palo Alto Airport, San Carlos, Moffett and Reid-Hillview Airport.

The chart below shows where the majority of the noise complaints and concerns are originating from.



Runway 12 Operations (South Flow)

Occasionally, due to weather or regional traffic flow requirements, SJC arrivals will land from the north on Runway 12R or 12L instead of approaching the airfield from the south and landing on Runway 30L or 30R. In 2015, the Airport traffic operated in south flow conditions 9.07% of the year.

When the airport does operate in south flow conditions, the communities in Santa Clara, Cupertino, Mountain View and Palo Alto become more impacted by the SJC arrivals than they are under normal operating conditions. Residents who live in the downtown area are also impacted by south flow departures scheduled between 6:30 AM and 7:00 AM.

Future Efforts in Airport Noise

Airport Operations staff will continue to communicate and work with commercial air carrier and cargo air carrier management regarding flight schedules and will continue striving to minimize noise impacts on the communities surrounding the airport. The air carriers continue to remain a critical partner in this effort by scheduling flights outside of the curfew hours, and investing in updated, modern aircraft fleets which have less of a noise impact on neighboring communities.

Airport Operations staff foresees the arrival routes over the Santa Cruz Mountains to remain a highly discussed issue. Residents and elected officials from those municipalities effected are now involved in the Select Committee on South Bay Arrivals which allows for open communication between elected officials, community members and the FAA.

Due to the level of media and banner-towing activities surrounding games or events at Levi's Stadium, the area directly off the approach end of 12L/R will continue to be an area of close scrutiny.