



Airport Director's Report

Presented at the August 5, 2020
Airport Community Roundtable Meeting

Aircraft Noise Abatement Office
March 2020



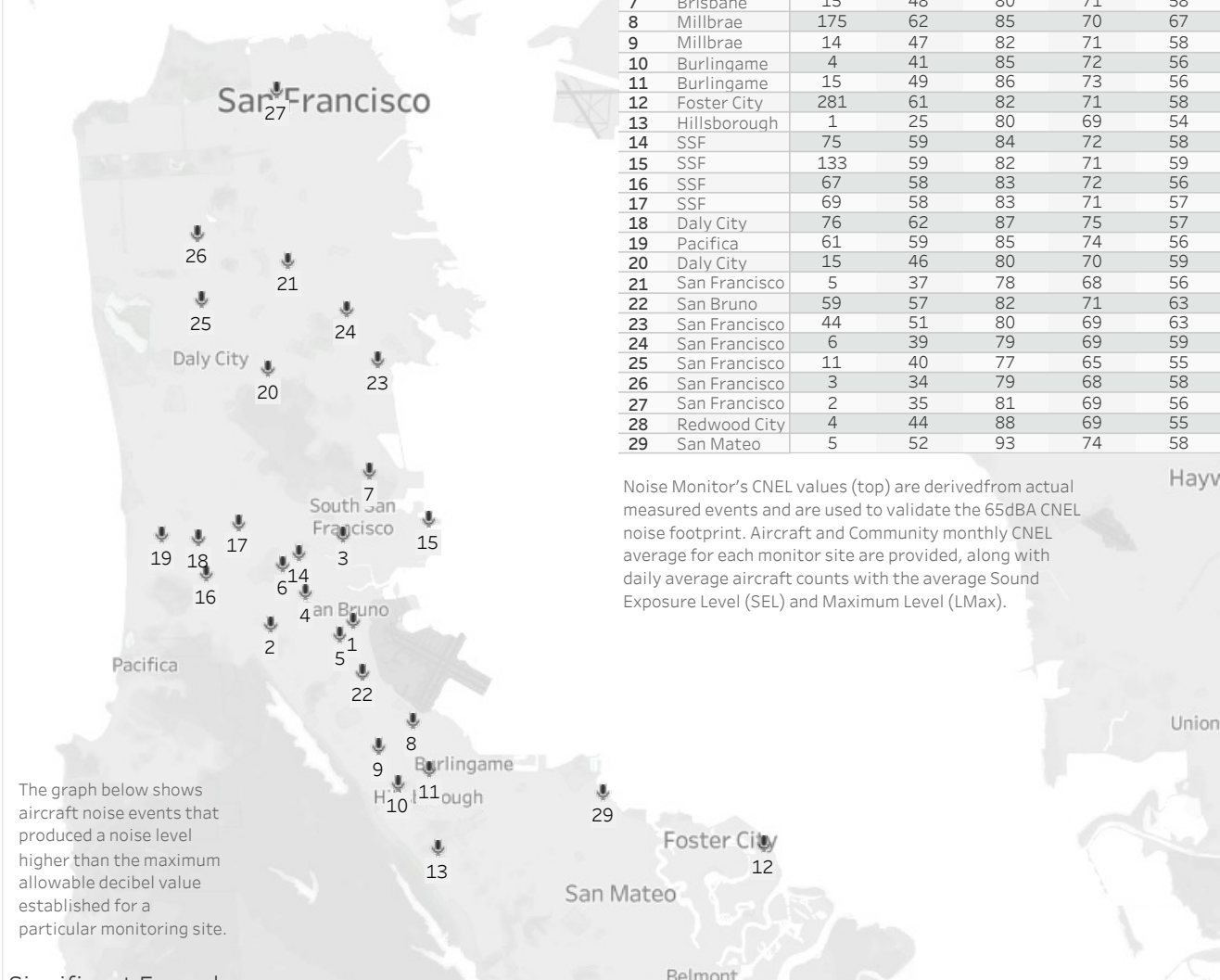
San Francisco
International
Airport

Aircraft Noise Levels

March 2020

The map shows 29 aircraft noise monitoring locations that keep track of noise levels in the communities around the airport. Image centered on SFO airport shows quarterly aircraft noise levels (dBA) exposure. The green zone marks 65dBA Community Noise Exposure Level (CNEL). The CNEL metric is used to assess and regulate aircraft noise exposure in communities surrounding the airport.

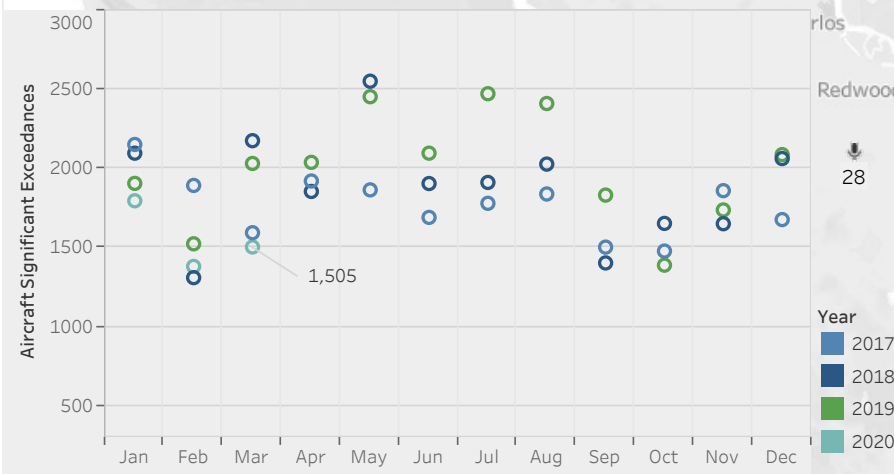
Site	City	Noise Events (AVG Day)	Aircraft		Community	
			CNEL (dBA)	SEL (dBA)	LMax (dBA)	CNEL (dBA)
1	San Bruno	121	70	93	80	67
2	San Bruno	24	51	81	71	63
3	SSF	24	51	82	70	61
4	SSF	88	66	90	78	59
5	San Bruno	97	64	88	76	62
6	SSF	79	63	88	76	56
7	Brisbane	15	48	80	71	58
8	Millbrae	175	62	85	70	67
9	Millbrae	14	47	82	71	58
10	Burlingame	4	41	85	72	56
11	Burlingame	15	49	86	73	56
12	Foster City	281	61	82	71	58
13	Hillsborough	1	25	80	69	54
14	SSF	75	59	84	72	58
15	SSF	133	59	82	71	59
16	SSF	67	58	83	72	56
17	SSF	69	58	83	71	57
18	Daly City	76	62	87	75	57
19	Pacifica	61	59	85	74	56
20	Daly City	15	46	80	70	59
21	San Francisco	5	37	78	68	56
22	San Bruno	59	57	82	71	63
23	San Francisco	44	51	80	69	63
24	San Francisco	6	39	79	69	59
25	San Francisco	11	40	77	65	55
26	San Francisco	3	34	79	68	58
27	San Francisco	2	35	81	69	56
28	Redwood City	4	44	88	69	55
29	San Mateo	5	52	93	74	58



Noise Monitor's CNEL values (top) are derived from actual measured events and are used to validate the 65dBA CNEL noise footprint. Aircraft and Community monthly CNEL average for each monitor site are provided, along with daily average aircraft counts with the average Sound Exposure Level (SEL) and Maximum Level (LMax).

The graph below shows aircraft noise events that produced a noise level higher than the maximum allowable decibel value established for a particular monitoring site.

Significant Exceedances



Note: Site 2 online starting 11/20/2019

Operations

March 2020

Monthly Ops AVG Daily Ops 12 Month AVG YOY Growth

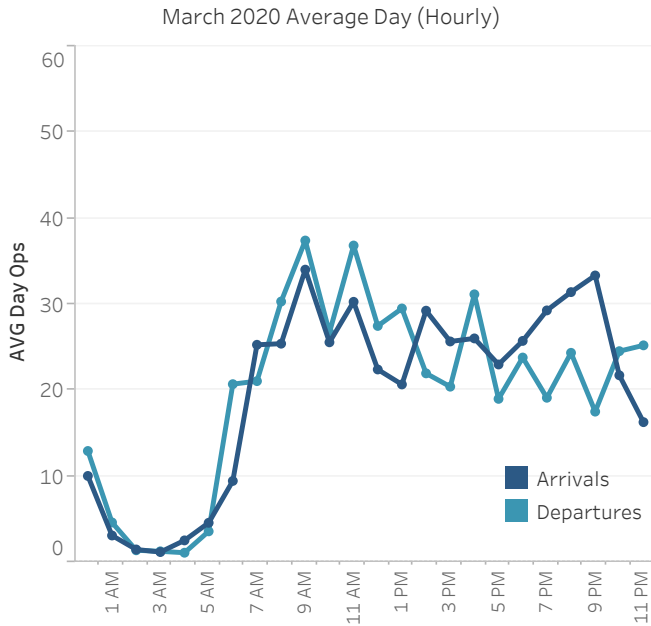
29,674	957	34,898	-391%
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Major Arrival and Departure Routes (West Flow)



West Flow is depicted in the above image and is a predominate flow at SFO.

West Flow
100%



Top Destinations

Seattle	Los Angeles
4%	8%

Down the Bay vs Peninsula

1.1 BDEGA East	26%
1.2 BDEGA West	74%

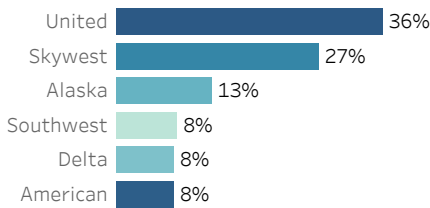
Arrival Route

- BDEGA
- DYAMD
- SERFR
- PIRAT

Departure Route

A. GAP	18%
B. SSTIK	32%
C. NIITE	10%
D. TRUKN RWY 01	36%
D. TRUKN RWY 28	5%

Airlines with the Most Operations



Non Airline

6%



Narrow Body

80%

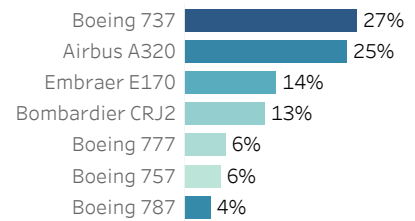


Wide Body

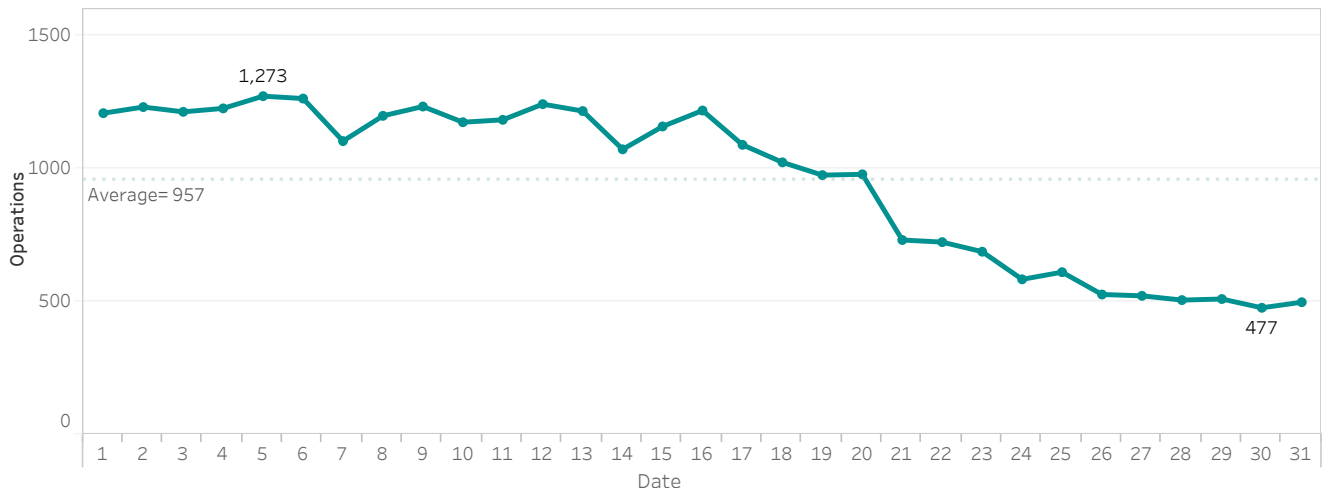
14%



Most Utilized Aircraft Types



Daily Aircraft Operations



Runway Usage and Nighttime Operations

Monthly Runway usage is shown for arrivals and departures, further categorized by all hours and nighttime hours. Graph at the bottom of the page shows hourly nighttime operations for each day. Power Runup locations are depicted on the airport map with airlines nighttime power runup counts shown below. Percent [%] is rounded to the nearest whole number.

Runway Utilization

	Arrivals	Departures
01 L/R		79% 11,192
10 L/R		0% 2
28 L/R	100% 14,100	21% 2,892

Late Night Preferential Runway Use (1 am - 6 am)

	Departures
01 L/R	49% 127
28 L/R	51% 134

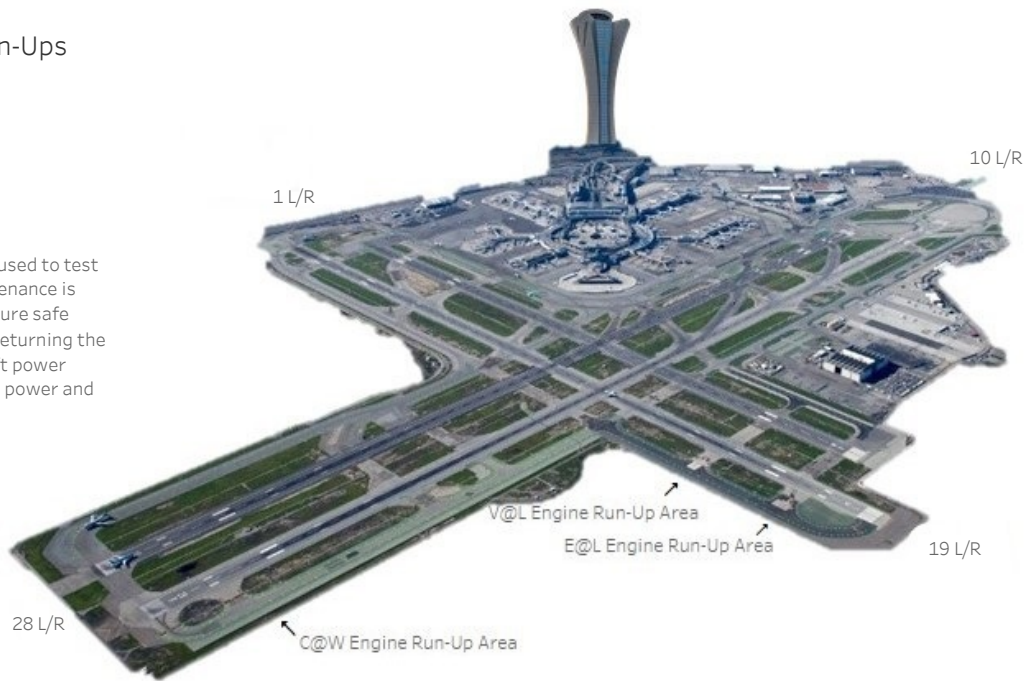
Runway Utilization

Arrivals	
28L	28R
44%	56%
Night (10pm-7am)	
27%	73%

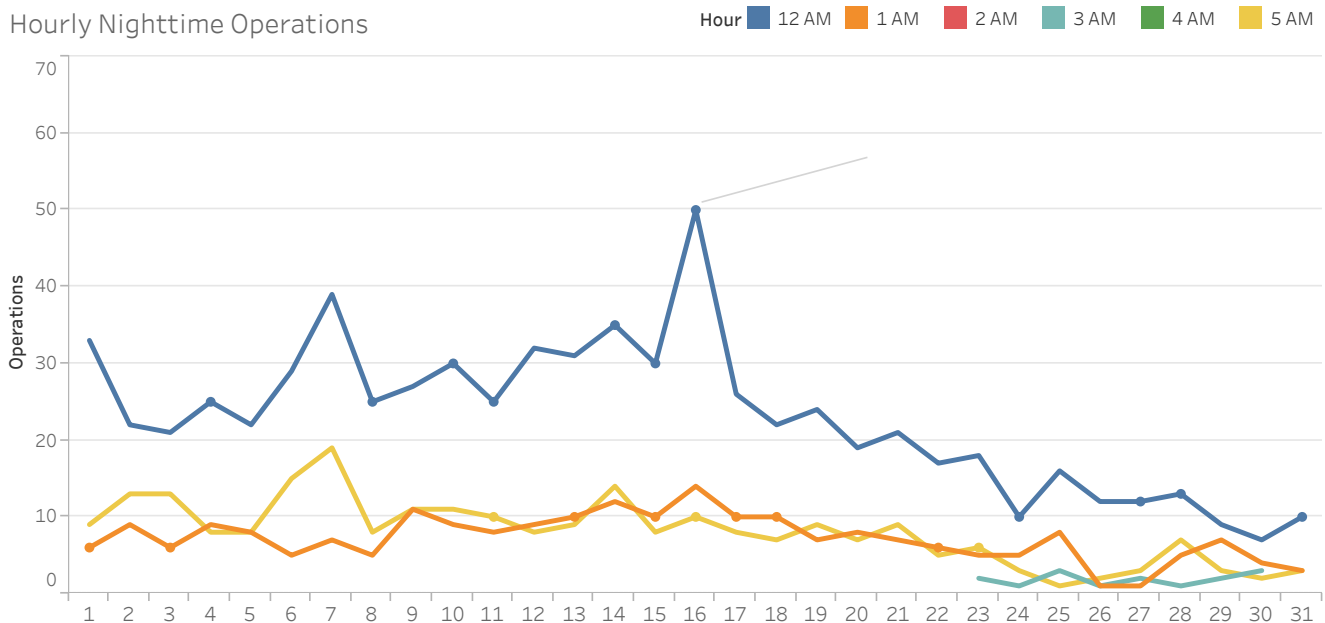
Nighttime Power Run-Ups

10pm-7am

A power runup is a procedure used to test an aircraft engine after maintenance is completed. This is done to ensure safe operating standards prior to returning the aircraft to service. The Aircraft power settings range from idle to full power and may vary in duration.



Hourly Nighttime Operations



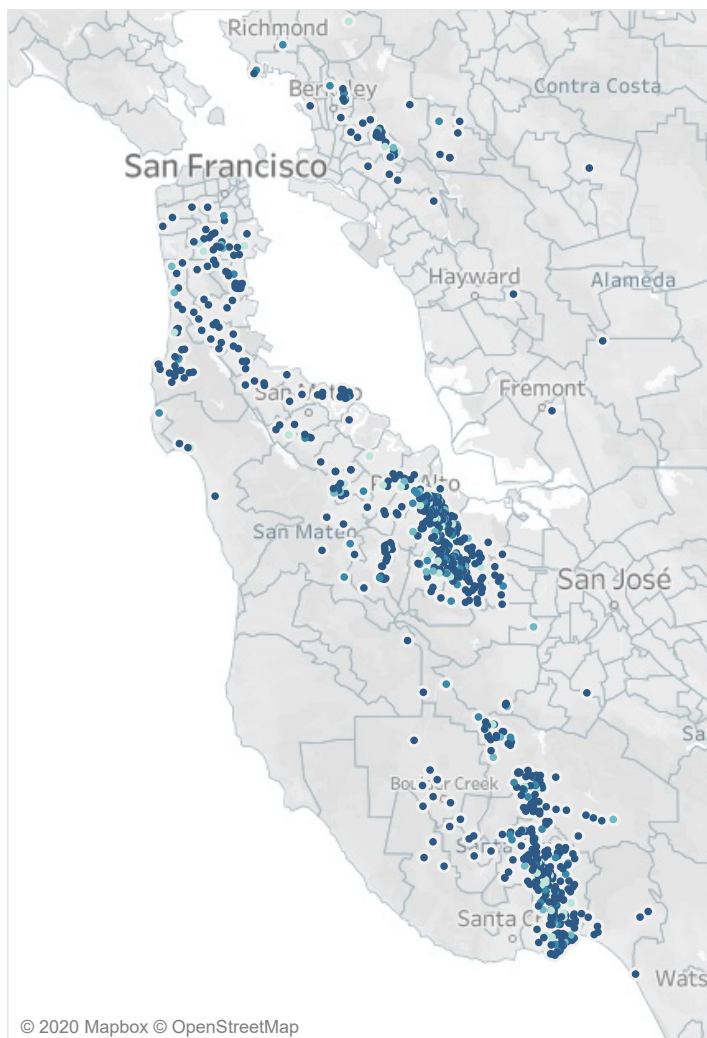
Noise Reports

Noise Reporters / Noise Reports

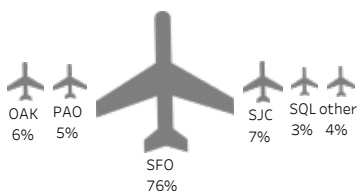
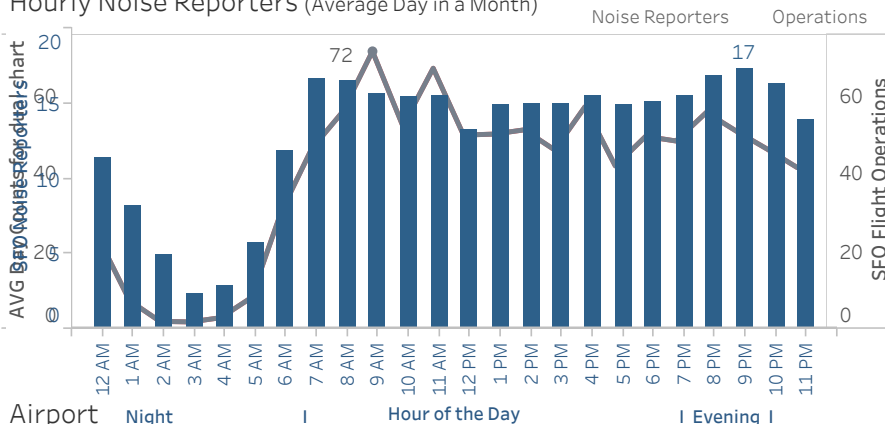
	Reporters	Noise Reports
Roundtable		
Atherton	5	1,960
Belmont	4	302
Brisbane	19	918
Burlingame	4	54
Daly City	9	1,337
El Granada	2	1,098
Foster City	11	447
Half Moon Bay	2	6
Hillsborough	2	2
Menlo Park	17	2,825
Millbrae	4	60
Montara	1	477
Pacifica	24	2,792
Portola Valley	31	19,100
Redwood City	11	2,164
San Bruno	7	338
San Carlos	1	140
San Francisco	27	6,664
San Mateo	9	1,273
South San Francisco	8	87
Woodside	8	1,486
Other		
Aptos	6	222
Ben Lomond	4	71
Berkeley	12	2,483
Bonny Doon	2	36
Boulder Creek	6	131
Brookdale	1	1
Capitola	15	1,875
Carmel Valley	2	102
Cupertino	1	637
Danville	1	1
East Palo Alto	1	1
Emerald Hills	8	3,831
Felton	7	721
Fremont	1	47
Hayward	1	148
La Honda	1	1
La Selva Beach	1	4
Lafayette	1	1
Los Altos	99	17,544
Los Altos Hills	19	9,886
Los Gatos	84	14,873
Moraga	5	1,001
Morgan Hill	2	7
Mountain View	27	4,187
Oakland	23	6,708
Orinda	1	66
Palo Alto	157	37,442
Penngrove	1	27
Richmond	5	3,561
Santa Cruz	101	22,680
Saratoga	4	693
Scotts Valley	61	9,567
Sonoma	1	1
Soquel	58	9,347
Stanford	3	867
Sunnyvale	8	451
Sunol	1	1
Watsonville	1	231
Grand Total	938	192,983

Reporters Annual AVG	1,077
Reports Annual AVG	178,432
New Reporters	19
New Reporters Top City	Menlo Park Redwood City San Bruno Sunnyvale
Furthest Report	88 miles
Reports per SFO Operation	7
Top Aircraft Types	B737 A320 E75L
Top Flight Numbers	KAL214 AAL892 UAL820

Noise Reporters Location Map



Hourly Noise Reporters (Average Day in a Month)



99% of noise reports correlate to a flight origin/destination airport.

Notes: Address validation Relies on USPS-provided ZIP Code look up table and USPS-specified default city values.

Source: SFO Intl Airport Noise Monitoring System