

# NOISE FORUM SUMMARY

North/South Field Working Groups



**NOISE ABATEMENT REPORT**

**FIRST QUARTER 2023**

# Disclaimer

The Port of Oakland's Airport Noise and Operations Monitoring System (ANOMS) is the source of the data used in this report. Although ANOMS is a very sophisticated computer program that provides a state-of-the-art solution for collecting aircraft noise complaints. The number of aircraft noise complaints in the report are for informational purposes. Airport staff carefully reviews the data for accuracy and will make corrections whenever possible.

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Compliance Monitoring Quarterly Summary Comparison First Quarter 2023				
	2022Q1		2023Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	93%	7%	94%	6%
Total Airport-wide Corporate Jet Departures	2,454	175	2,400	156
Runway 10R/L Jet Landing Compliance	85%	15%	84%	16%
Total Southeast Plan Corporate Jet Landings	92	16	566	107
North Field VFR Departure Compliance	91%	9%	92%	8%
Total Runways 28R/L & 33 Departures	224	21	172	15
North Field Quiet Hours Compliance	76%	24%	85%	15%
Total North Field Quiet Hours Departures	103	33	150	26
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	15,423	7	12,497	7
Night Time Departure Compliance	100%	0%	99%	1%
Total Runway 30 Night Turbojet Departures	2,431	12	2,366	19
Runway 12 Night Departure Compliance	100%	0%	94%	6%
Total Runway 12 Night Turbojet Departures	55	0	769	52
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	3,757	0	2,759	2
100 Degree Radial Turbojet Landing Compliance	99%	0%	98%	2%
Total 100 Degree Radial Turbojet Landings	817	6	737	18
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	5	0	8	0
Note: N/C means non-compliant. Percentage values are rounded out.				



Operation Details  
Beacon Code: 3373  
AC Type: H25C  
Operation Type: Departure  
Runway: 28L  
Date/Time: 12/13/2016 8:26:14 AM

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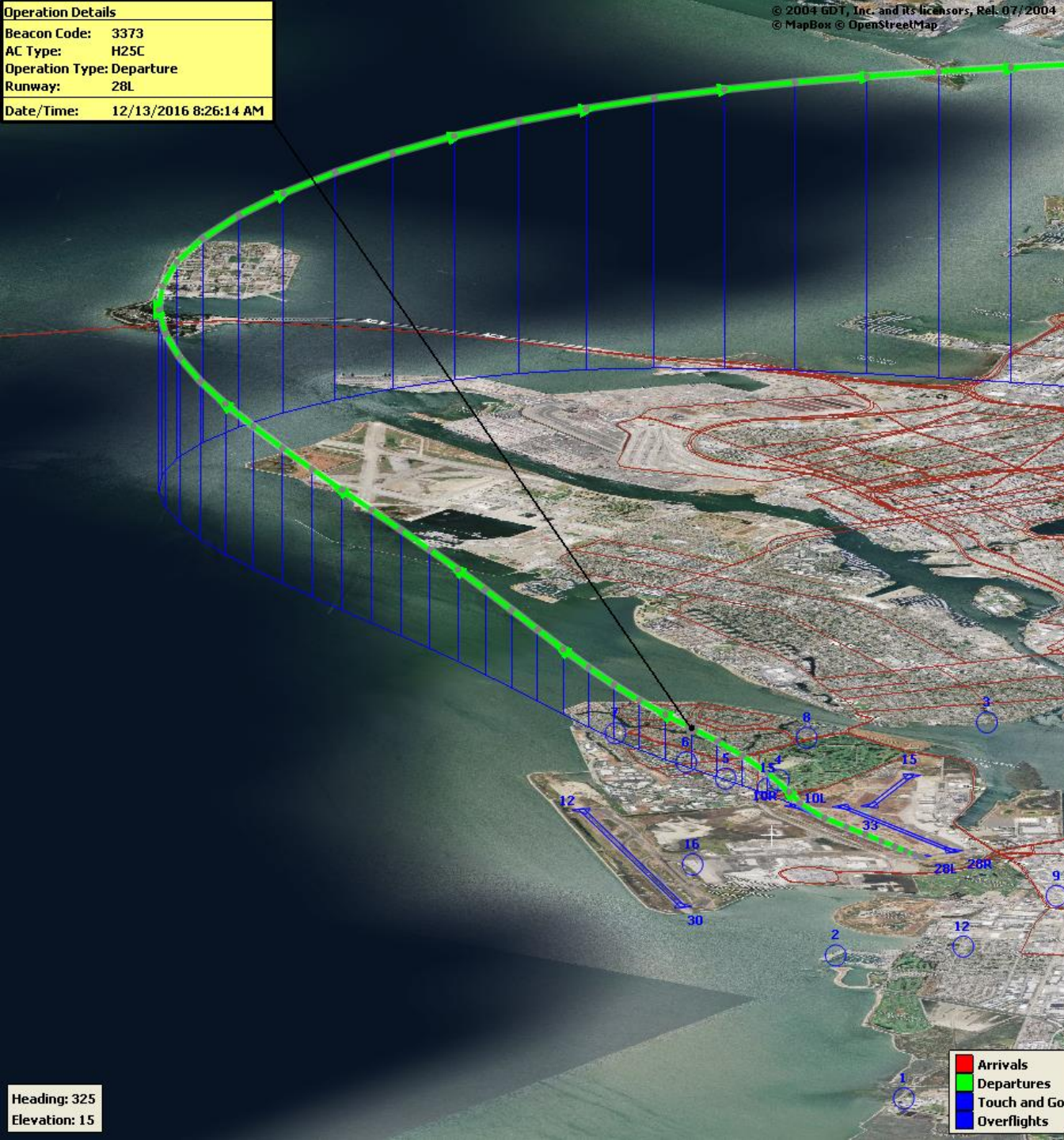
## Runway 28R/L Jet Departure NAP

**2023Q1**  
**94% Compliance**  
**(2,556 total departures)**  
**(156 non-compliant)**

**2022Q1**  
**93% Compliance**  
**(2,629 total departures)**  
**(175 non-compliant)**

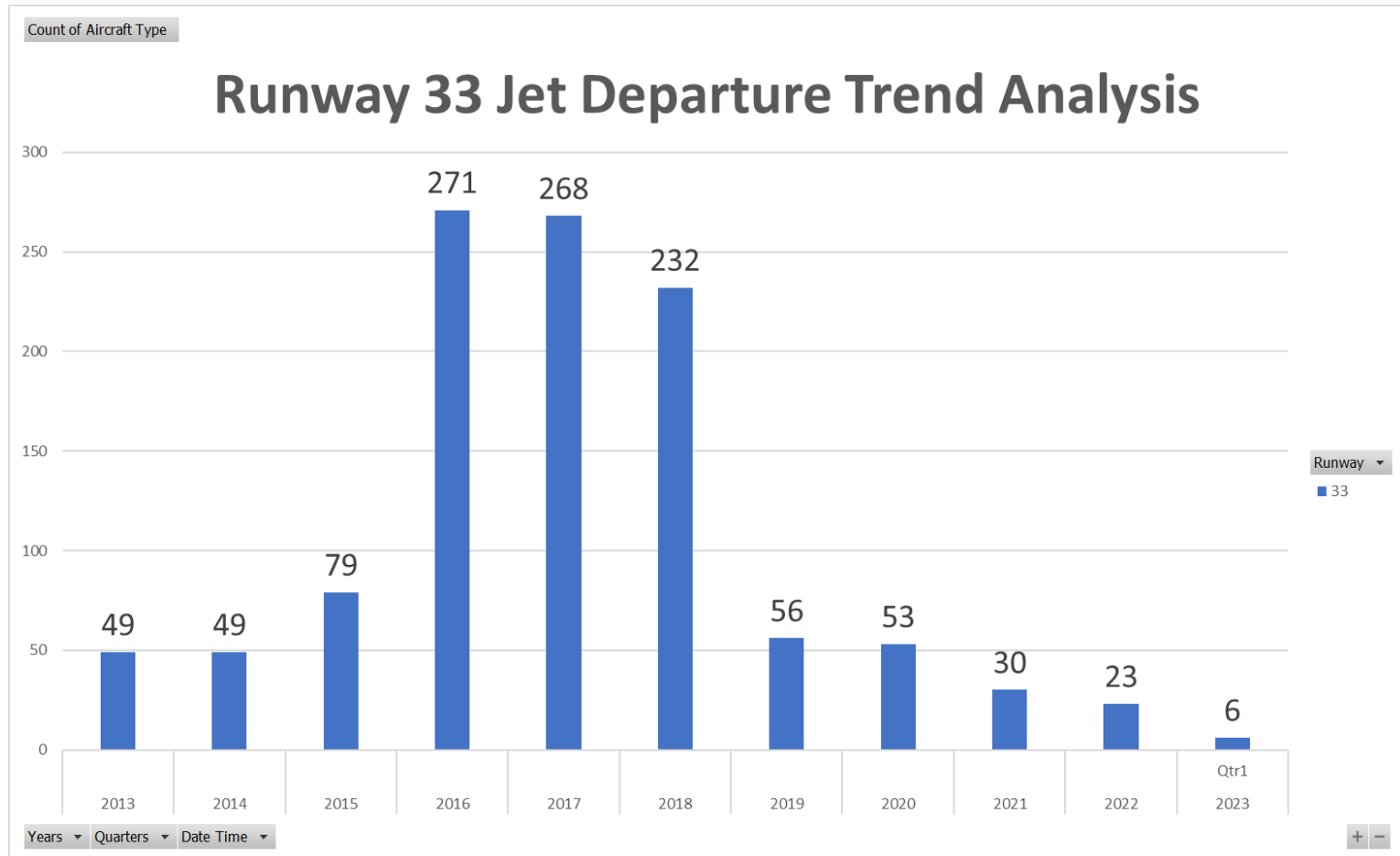
Heading: 325  
Elevation: 15

Arrivals  
Departures  
Touch and Go  
Overflights



# RUNWAY 33 JET DEPARTURES

## FIRST Quarter 2023





Operation Details  
Beacon Code: 4564  
AC Type: C550  
Operation Type: Arrival  
Runway: 10R  
Date/Time: 12/15/2016 8:15:42 PM

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## Runway 10R/L Jet Landing NAP

**2023Q1**

**84% Compliance**  
**(673 total landings)**  
**(107 non-compliant)**

**2022Q1**

**85% Compliance**  
**(108 total landings)**  
**(16 non-compliant)**

Heading: 325  
Elevation: 15

Arrivals  
Departures  
Touch and Go  
Overflights





Operation Details  
Beacon Code: 4544  
AC Type: P28A  
Operation Type: Departure  
Runway: 28R  
Date/Time: 6/1/2016 6:27:01 PM

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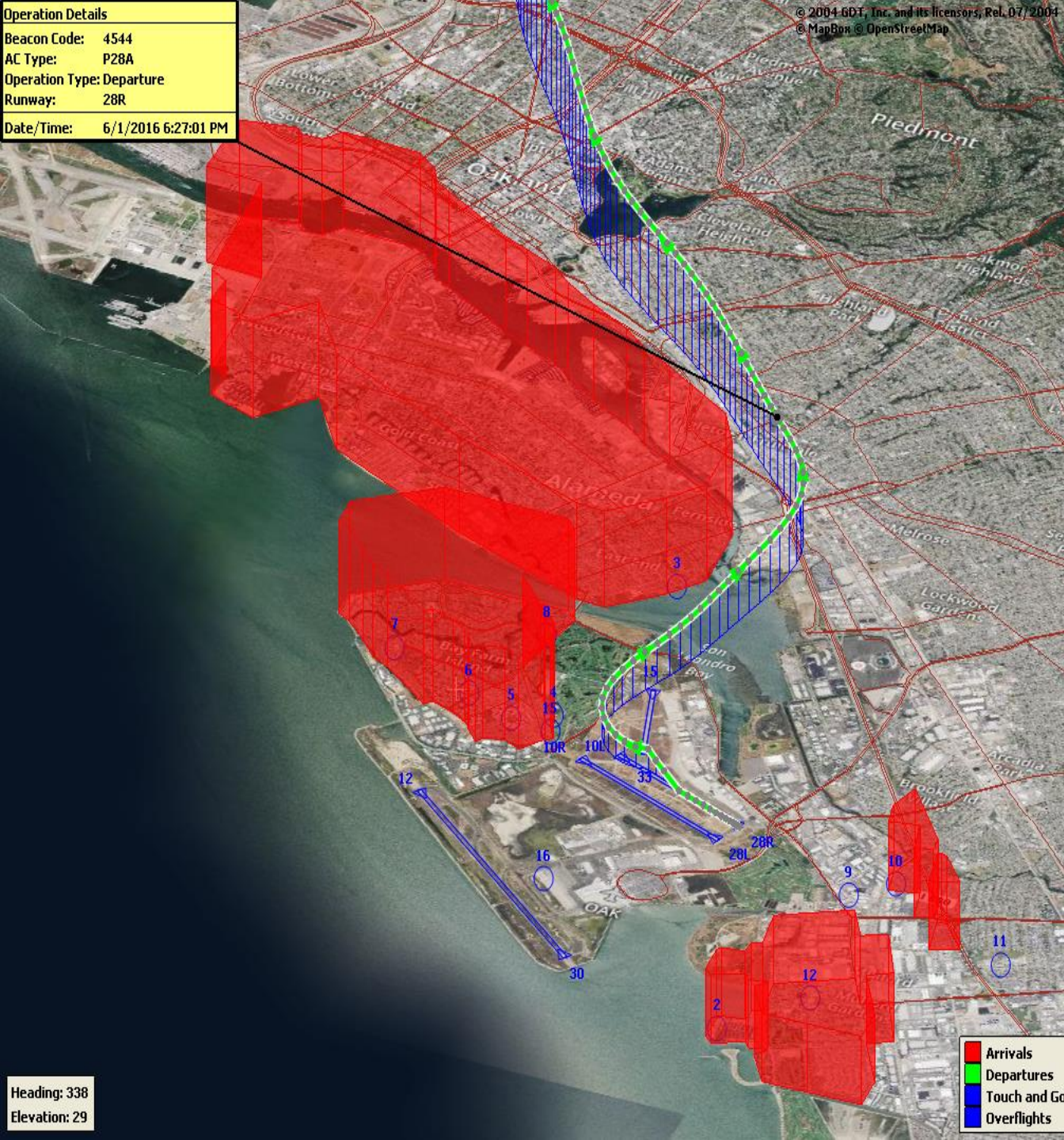
## VFR Aircraft Departure NAP

**2023Q1**  
**92% Compliance**  
**(187 total departures)**  
**(15 non-compliant)**

**2022Q1**  
**91% Compliance**  
**(245 total departures)**  
**(21 non-compliant)**

Heading: 338  
Elevation: 29

Arrivals  
Departures  
Touch and Go  
Overflights





Operation Details  
Beacon Code: 3351  
AC Type: PC12  
Operation Type: Departure  
Runway: 28R  
Date/Time: 12/13/2016 6:02:33 AM

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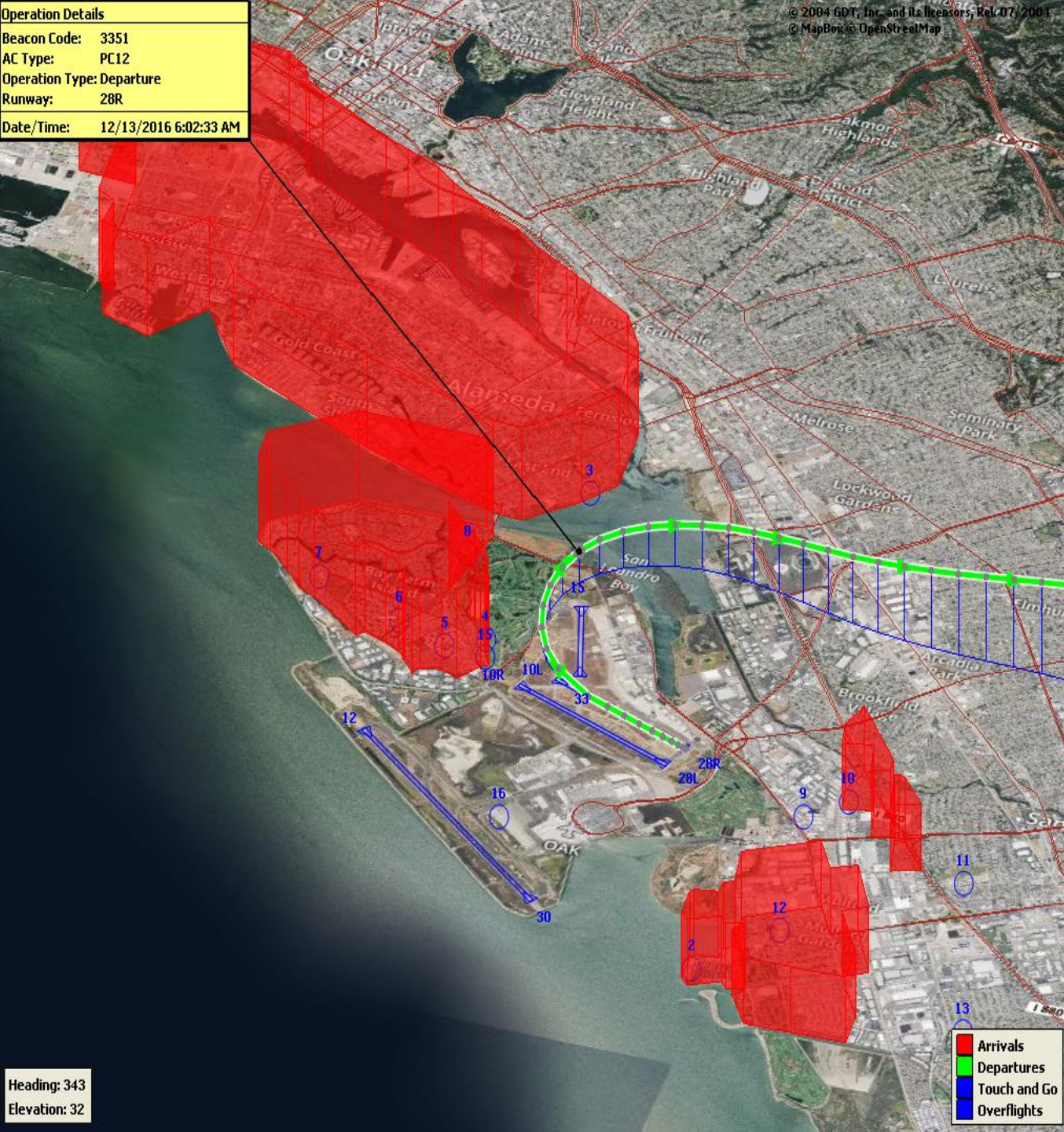
## North Field Quiet Hours NAP

**2023Q1**  
**85% Compliance**  
**(176 total departures)**  
**(26 non-compliant)**

**2022Q1**  
**76% Compliance**  
**(136 total departures)**  
**(33 non-compliant)**

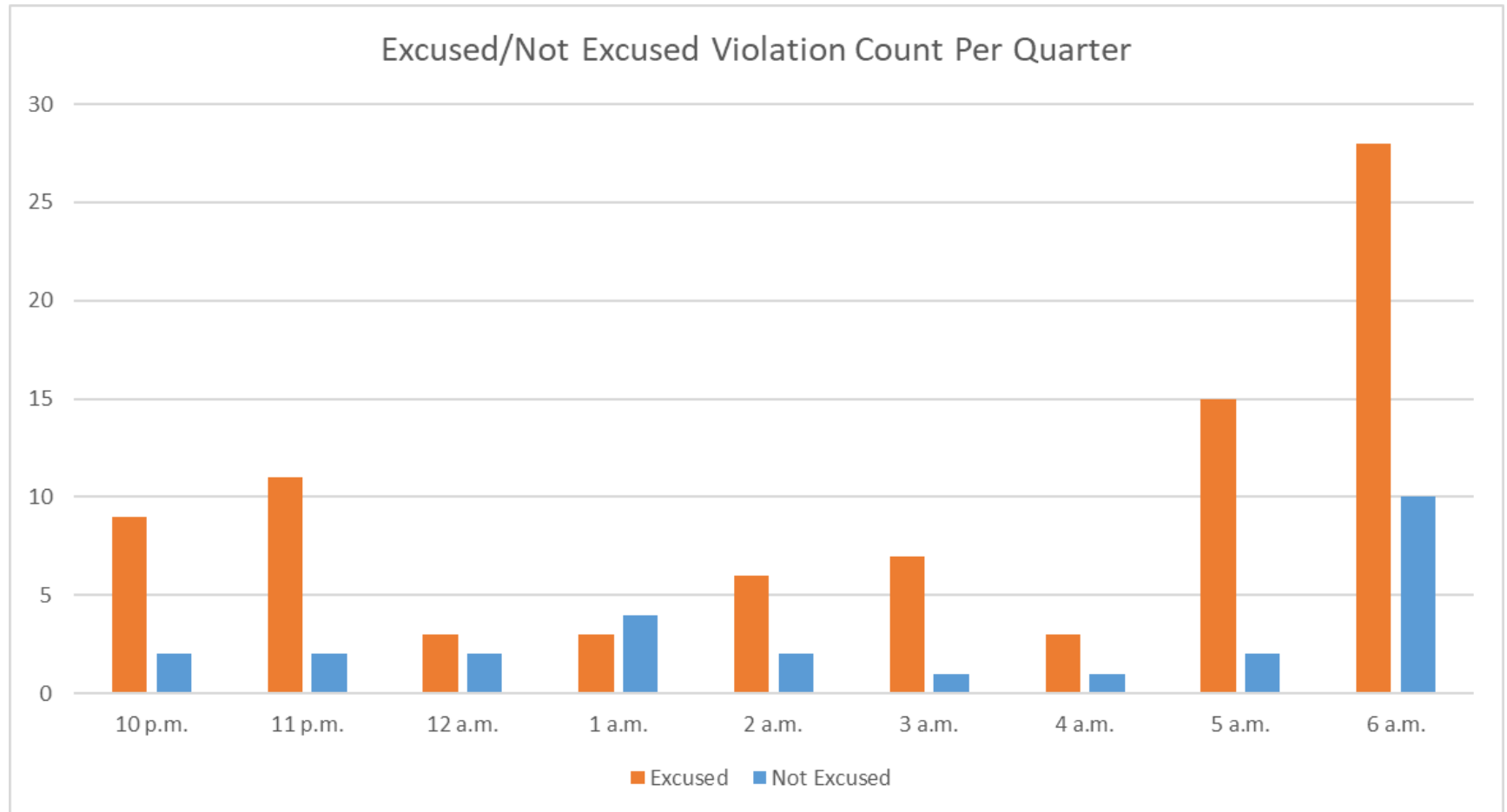
Heading: 343  
Elevation: 32

Arrivals  
Departures  
Touch and Go  
Overflights





# Quartely North Field Quiet Hours NAP Non-Compliant Per Quarter



**Operation Details**  
 Beacon Code: 3641  
 AC Type: B737  
 Operation Type: Departure  
 Runway: 30  
 Date/Time: 8/22/2017 10:16:59 PM



## Night Time Departure NAP

**2023Q1**  
**99% Compliance**  
**(2,385 total departures)**  
**(19 non-compliant)**

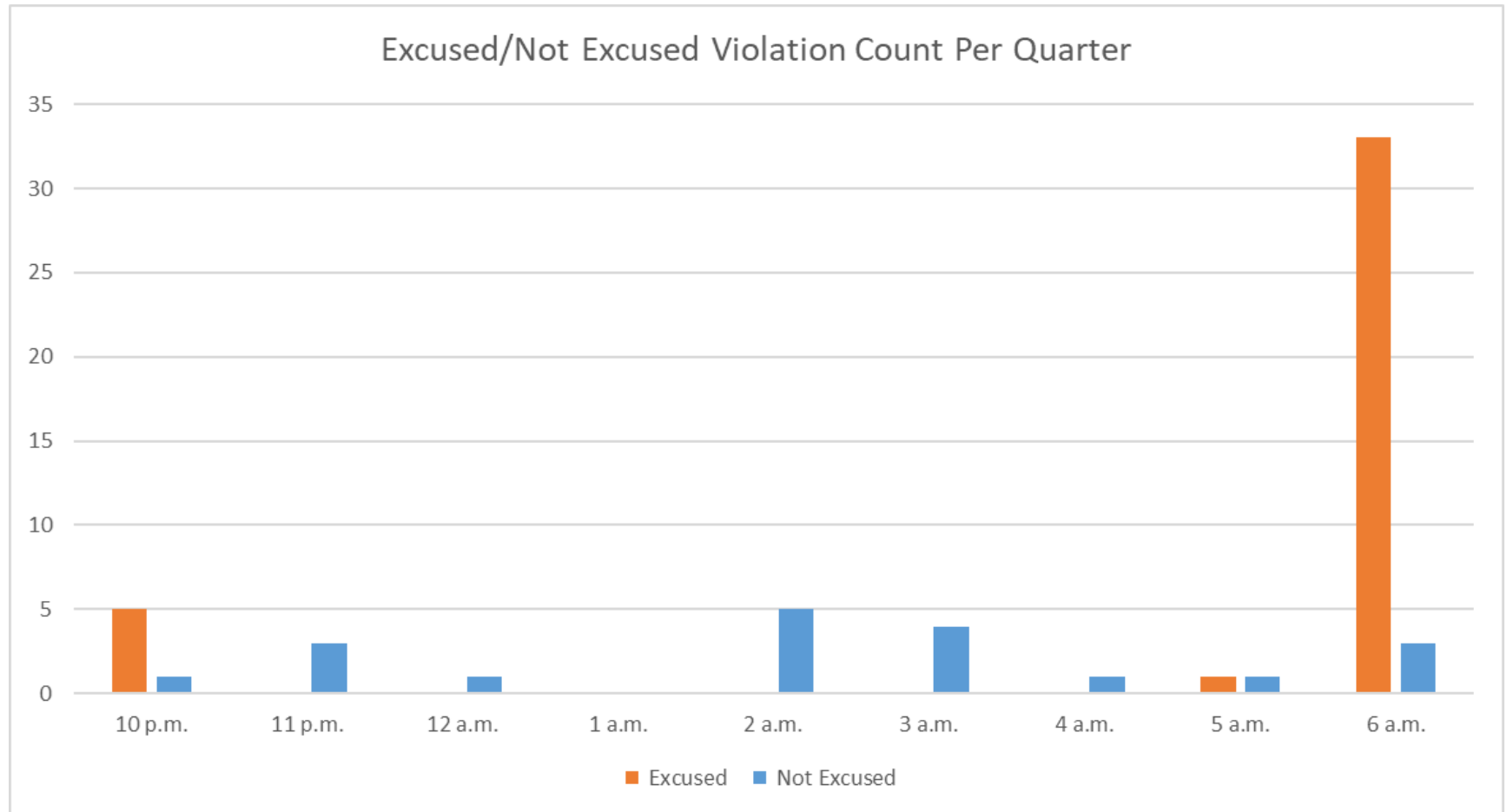
\*REBAS Gate non-compliant = 19

**2022Q1**  
**100% Compliance**  
**(2,443 total departures)**  
**(12 non-compliant)**

Heading: 349  
 Elevation: 59



# Quarterly Night Time NAP Non-Compliant Count Per Quarter



Operation Details  
Beacon Code: 3345  
AC Type: B763  
Operation Type: Departure  
Runway: 12  
Date/Time: 12/15/2016 3:12:56 AM

Heading: 1  
Elevation: 38



## Runway 12 Night Departure NAP

**2023Q1**

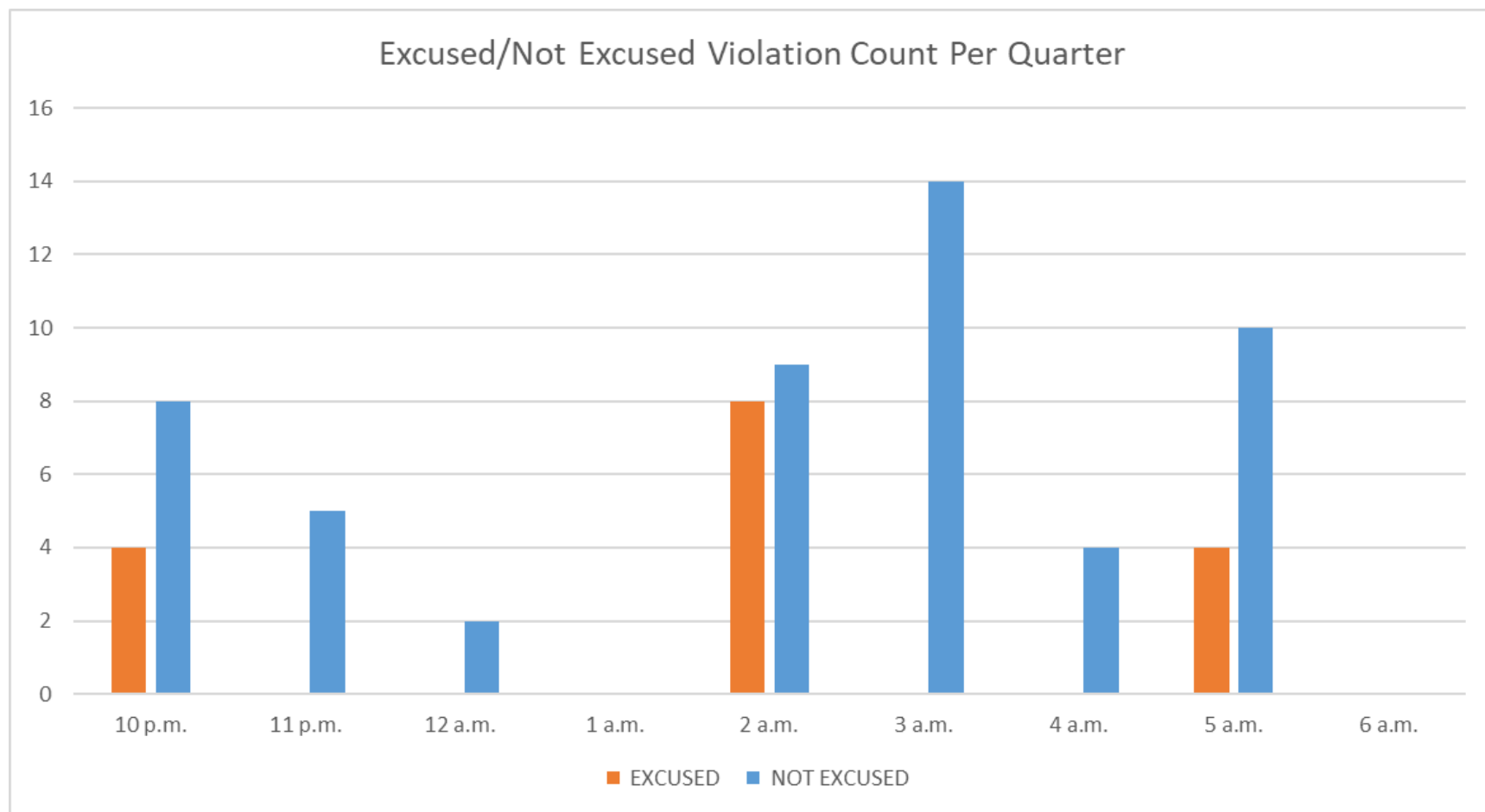
**94% Compliance  
(821 total departures)  
(52 non-compliant)**

**2022Q1**

**100% Compliance  
(55 total departures)  
(0 non-compliant)**



# Quarterly Runway 12 Night Departure Non-Compliant Count Per Quarter



Operation Details	
Beacon Code:	3374
AC Type:	B737
Operation Type:	Departure
Runway:	30
Date/Time:	1/7/2019 8:57:05 AM

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## Runway 30 Bay Farm Right Turn NAP

**2023Q1**  
**100% Compliance**  
**(12,504 total departures)**  
**(7 non-compliant)**

**2022Q1**  
**100% Compliance**  
**(15,430 total departures)**  
**(7 non-compliant)**

Heading: 299  
Elevation: 36





## Runway 30 East Turn NAP

**2023Q1**  
**100% Compliance**  
**(2,761 total departures)**  
**(2 non-compliant)**

\*Excused Departures = 5

**2022Q1**  
**100% Compliance**  
**(3,757 total departures)**  
**(0 non-compliant)**

Operation Details	
Beacon Code:	3777
AC Type:	B737
Operation Type:	Departure
Runway:	30
Date/Time:	3/15/2017 9:53:47 AM

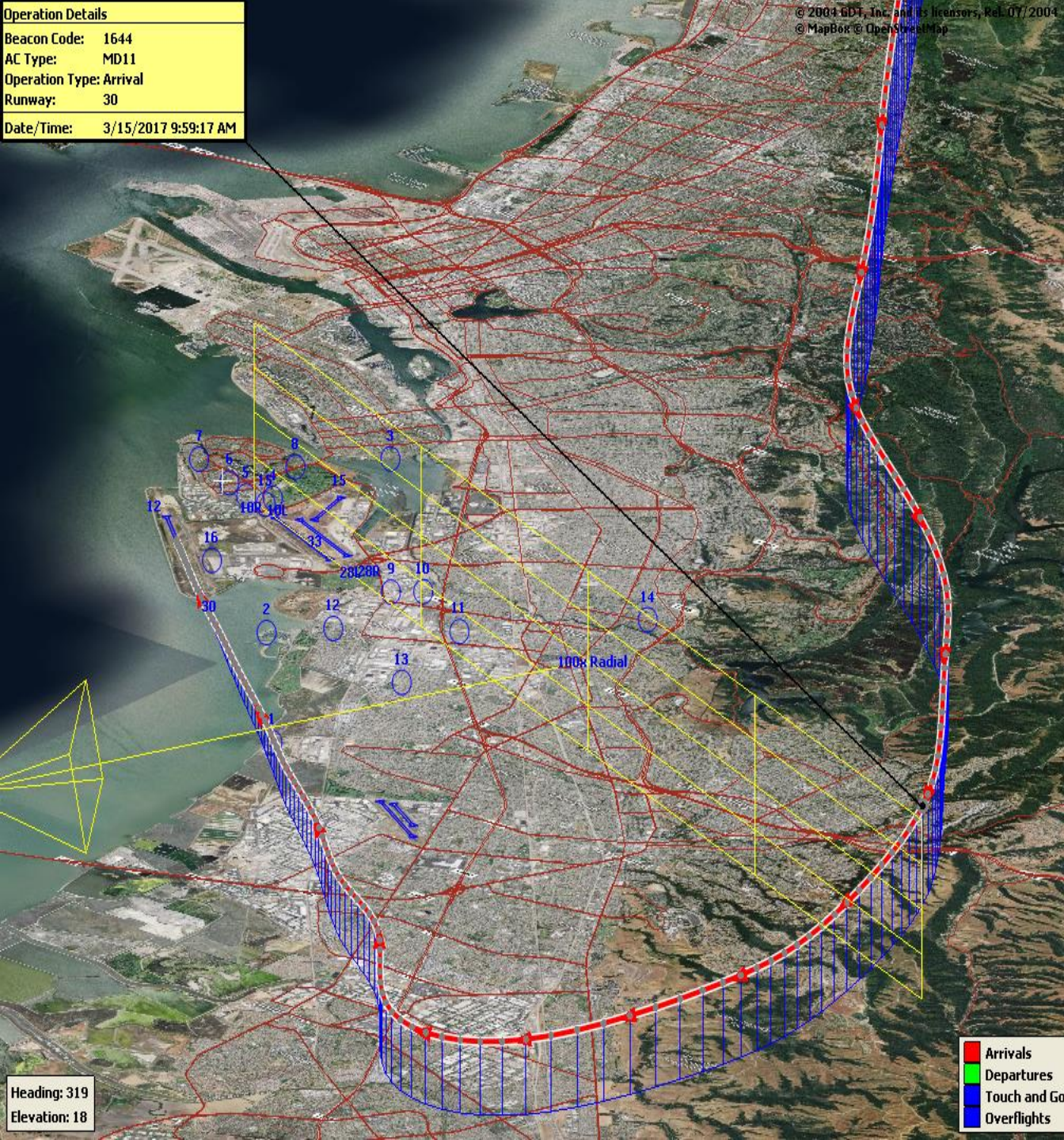
Alameda Rwy 30





Operation Details	
Beacon Code:	1644
AC Type:	MD11
Operation Type:	Arrival
Runway:	30
Date/Time:	3/15/2017 9:59:17 AM

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## 100 Degree Radial At 3,000 ft. NAP

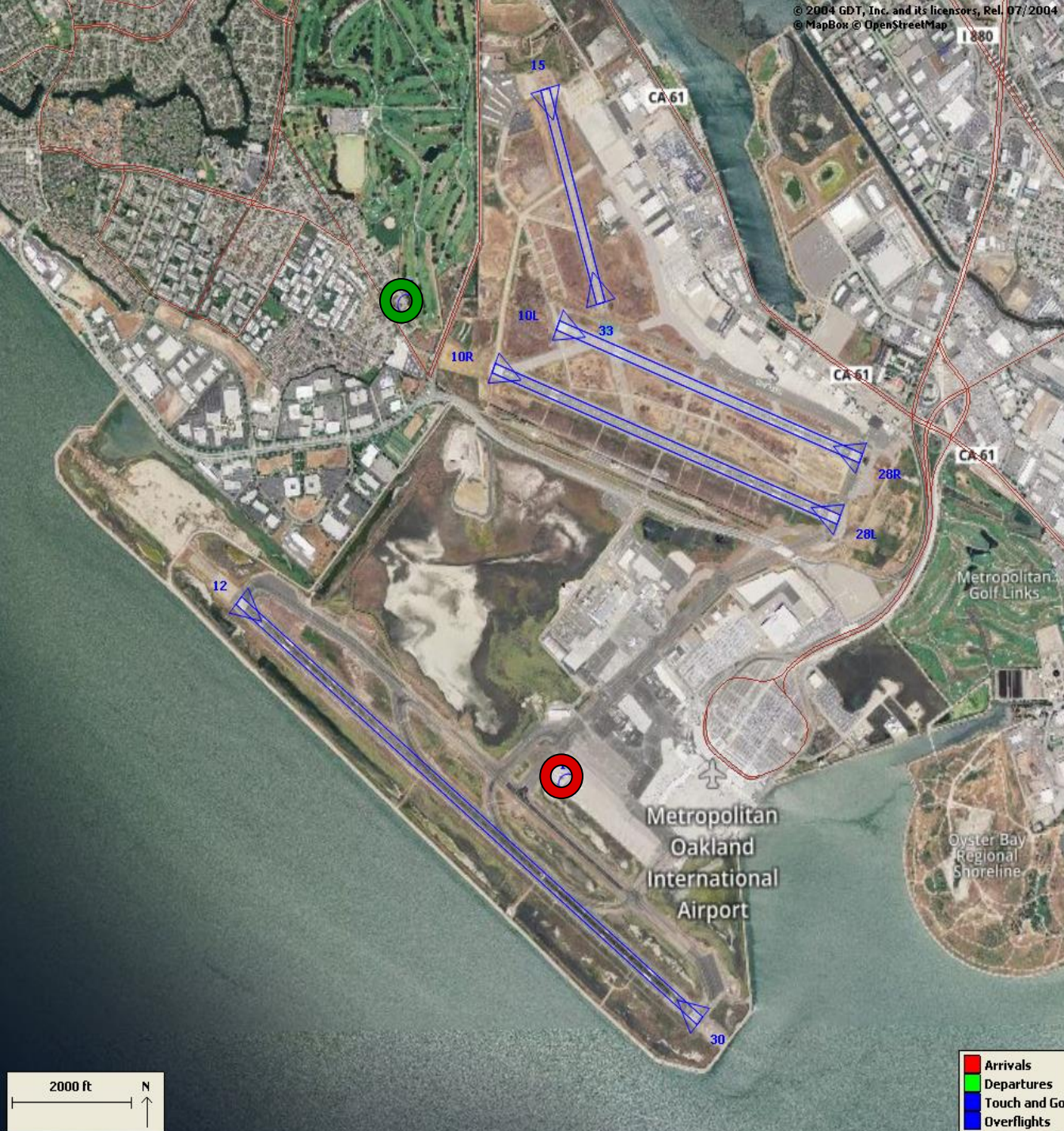
**2023Q1**  
**98% Compliance**  
**(755 total landings)**  
**(18 non-compliant)**

**2022Q1**  
**99% Compliance**  
**(823 total landings)**  
**(6 non-compliant)**

Heading: 319  
 Elevation: 18

- Arrivals
- Departures
- Touch and Go
- Overflights





## Engine Run-up NAP

**2023Q1**

**100% Compliance  
(8 engine run-ups)\*  
(0 non-compliant)**

**2022Q1**

**100% Compliance  
(5 engine run-ups)  
(0 non-compliant)**

**\*Only above idle-power run-ups  
recorded.**

Compliance Monitoring Quarterly Summary Comparison First Quarter 2023 - Quarter-to-Quarter				
	2022Q4		2023Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	93%	7%	94%	6%
Total Airport-wide Corporate Jet Departures	2,375	175	2,400	156
Runway 10R/L Jet Landing Compliance	92%	8%	84%	16%
Total Southeast Plan Corporate Jet Landings	113	10	566	107
North Field VFR Departure Compliance	89%	11%	92%	8%
Total Runways 28R/L & 33 Departures	203	24	172	15
North Field Quiet Hours Compliance	81%	19%	85%	15%
Total North Field Quiet Hours Departures	128	31	150	26
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,150	1	12,497	7
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	3,252	28	2,366	19
Runway 12 Night Departure Compliance	96%	4%	94%	6%
Total Runway 12 Night Turbojet Departures	43	2	769	52
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	4,159	5	2,759	2
100 Degree Radial Turbojet Landing Compliance	98%	2%	98%	2%
Total 100 Degree Radial Turbojet Landings	993	22	737	18
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	3	0	8	0
Note: N/C means non-compliant. Percentage values are rounded out.				



**Table 1. North Field Night Aircraft Departure SEL Noise Measurements**  
**Total Aircraft Departures = 176**

First Quarter 2023 (10:00 p.m. to 7:00 a.m.)

NMT Number	Aircraft Noise Events Below SEL 80 dBA	Aircraft Noise Events SEL 80 - 84.9 dBA			Aircraft Noise Events SEL 85 - 89.9 dBA			Aircraft Noise Events SEL ≥ 90 dBA			Total Aircraft Noise Events
		Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	
1	0	6	0.1	1.1%	5	0.1	0.9%	0	0.0	0.0%	11
2	26	3	0.0	0.5%	1	0.0	0.2%	2	0.0	0.4%	32
3	40	4	0.0	0.7%	0	0.0	0.0%	0	0.0	0.0%	44
4	50	49	0.5	8.6%	33	0.4	5.8%	18	0.2	3.2%	150
5	57	14	0.2	2.5%	10	0.1	1.8%	18	0.2	3.2%	99
6	48	9	0.1	1.6%	18	0.2	3.2%	8	0.1	1.4%	83
7	18	12	0.1	2.1%	16	0.2	2.8%	0	0.0	0.0%	46
8	39	16	0.2	2.8%	1	0.0	0.2%	0	0.0	0.0%	56
9	14	33	0.4	5.8%	19	0.2	3.4%	3	0.0	0.5%	69
10	102	50	0.6	8.8%	9	0.1	1.6%	0	0.0	0.0%	161
11	13	11	0.1	1.9%	1	0.0	0.2%	0	0.0	0.0%	25
12	36	11	0.1	1.9%	4	0.0	0.7%	0	0.0	0.0%	51
13	23	6	0.1	1.1%	0	0.0	0.0%	0	0.0	0.0%	29
14	39	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	39
<b>All NMTs</b>	505	224	2	0	117	1	0	49	1	0	895

**Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 110**

**First Quarter 2023 (10:00 p.m. to 7:00 a.m.)**

NMT Number	Aircraft Noise Events Below SEL 80 dBA	Aircraft Noise Events SEL 80 - 84.9 dBA			Aircraft Noise Events SEL 85 - 89.9 dBA			Aircraft Noise Events SEL ≥ 90 dBA			Total Aircraft Noise Events
		Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	
3	40	4	0.0	1.7%	0	0.0	0.0%	0	0.0	0.0%	44
4	50	49	0.5	20.5%	33	0.4	13.8%	18	0.2	7.5%	150
5	57	14	0.2	5.9%	10	0.1	4.2%	18	0.2	7.5%	99
6	48	9	0.1	3.8%	18	0.2	7.5%	8	0.1	3.3%	83
7	18	12	0.1	5.0%	16	0.2	6.7%	0	0.0	0.0%	46
8	39	16	0.2	6.7%	1	0.0	0.4%	0	0.0	0.0%	56
<b>Total</b>	<b>252</b>	<b>104</b>	<b>1.2</b>		<b>78</b>	<b>0.9</b>		<b>44</b>	<b>0.5</b>		<b>478</b>

**Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 66**

**First Quarter 2023 (10:00 p.m. to 7:00 a.m.)**

NMT Number	Aircraft Noise Events Below SEL 80 dBA	Aircraft Noise Events SEL 80 - 84.9 dBA			Aircraft Noise Events SEL 85 - 89.9 dBA			Aircraft Noise Events SEL ≥ 90 dBA			Total Aircraft Noise Events
		Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	
2	26	3	0.0	0.9%	1	0.0	0.3%	2	0.0	0.6%	32
9	14	33	0.4	10.1%	19	0.2	5.8%	3	0.0	0.9%	69
10	102	50	0.6	15.2%	9	0.1	2.7%	0	0.0	0.0%	161
11	13	11	0.1	3.4%	1	0.0	0.3%	0	0.0	0.0%	25
12	36	11	0.1	3.4%	4	0.0	1.2%	0	0.0	0.0%	51
13	23	6	0.1	1.8%	0	0.0	0.0%	0	0.0	0.0%	29
14	39	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	39
<b>Total</b>	<b>253</b>	<b>114</b>	<b>1.3</b>		<b>34</b>	<b>0.4</b>		<b>5</b>	<b>0.1</b>		<b>406</b>



**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)  
First Quarter 2023, NMT 2**

	Aircraft Departures	Recorded Noise Events (a)	Lmax Average	SEL Average	Avg. Duration (seconds)
Baseline (November 2002) [A]					
DC10/MD10	87	32	69	78	22
MD11	32	13	70	79	24
A306	67	21	67	77	25
First Quarter 2023 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	217	72	63	65	74
DC10/MD10	0	-	-	-	-
MD11	164	55	73	68	77
A306	57	19	19	65	74
B757	86	29	30	65	75
B77L	103	34	21	65	73
Difference [A-B]					
DC10/MD10		-87	-32	-69	-78
MD11		23	60	-2	-2
A306		-48	-2	-2	-3

(a) For the current calendar quarter reported, ANOMS does not correlate all departures to their respective noise events; that is most, but not all, aircraft back-blast noise events are effectively correlated as the program software algorithms may misidentify an aircraft noise event.

Source: ANOMS (Airport Noise and Operations Monitoring System)

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)  
First Quarter 2022, NMT 2**

	Aircraft Departures	Recorded Noise Events (a)	Lmax Average	SEL Average	Avg. Duration (seconds)
Baseline (November 2002) [A]					
DC10/MD10	87	32	69	78	22
MD11	32	13	70	79	24
A306	67	21	67	77	25
First Quarter 2022 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	275	92	144	65	74
DC10/MD10	27	9	30	67	76
MD11	217	72	158	67	76
A306	17	6	10	65	73
B757	190	63	104	65	74
B77L	117	39	35	65	73
Difference [A-B]					
DC10/MD10		-78	-2	-2	-3
MD11		40	145	-3	-3
A306		-61	-11	-2	-4

(a) For the current calendar quarter reported, ANOMS does not correlate all departures to their respective noise events; that is most, but not all, aircraft back-blast noise events are effectively correlated as the program software algorithms may misidentify an aircraft noise event.  
Source: ANOMS (Airport Noise and Operations Monitoring System)



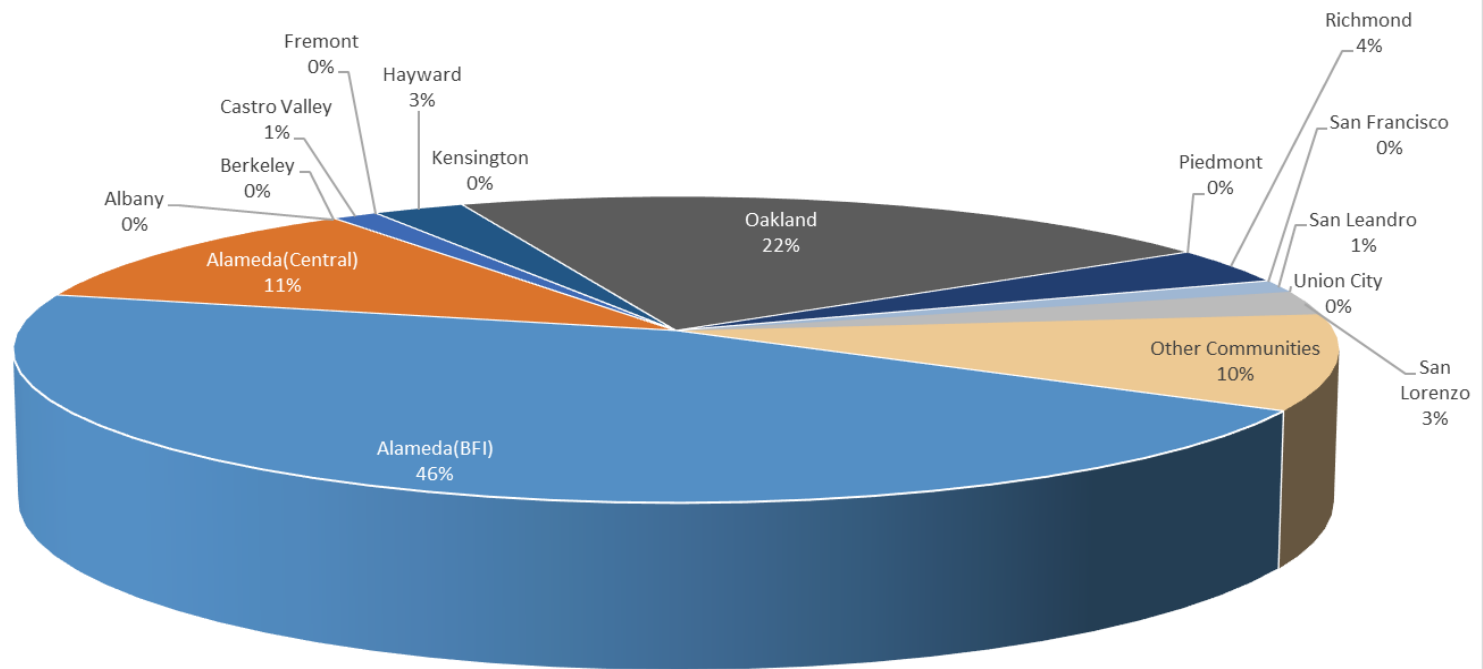
**Oakland International Airport  
Noise Complaint Summary  
January 2023**

Community	Callers	Complaints
Alameda(BFI)	36	1545
Alameda(Central)	9	24
Albany	0	0
Berkeley	0	0
Castro Valley	1	46
Fremont	0	0
Hayw ard	2	12
Kensington	0	0
Oakland	17	2668
Piedmont	0	0
Richmond	3	437
San Francisco	0	0
San Leandro	1	67
Union City	0	0
San Lorenzo	2	5
Other Communities	8	73
Total	79	4877
Complaints by Type		
E-mail	2731	
View point App	2146	
Complaints by Time of Day		
Day ( 0700 - 1900 )	866	
Evening ( 1900 - 2200 )	432	
Night ( 2200 - 0700 )	3579	
Complaints by Type of Operation		
Arrivals	3228	
Departures	1468	
Over-flights	144	
Touch & Go	37	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	271	
Helicopter	106	
Jet	3946	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	167	
Propeller	147	
Turbo-prop	240	

# Number of Callers

## January 2023

Noise Complaints Summary by Number of Callers

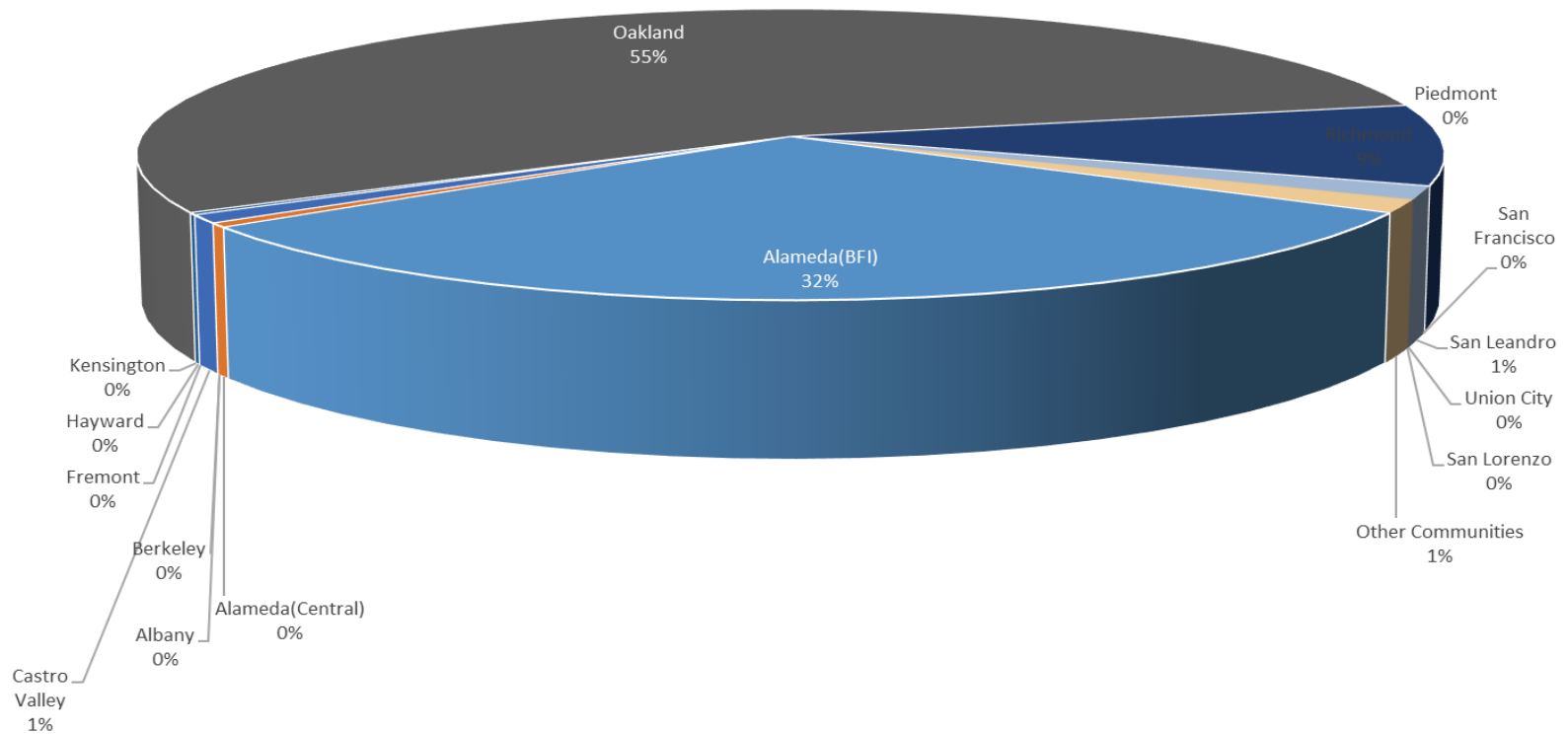




# Number of Complaints

## January 2023

Noise Complaints Summary by Number of Complaints



**Oakland International Airport  
Noise Complaint Summary  
February 2023**

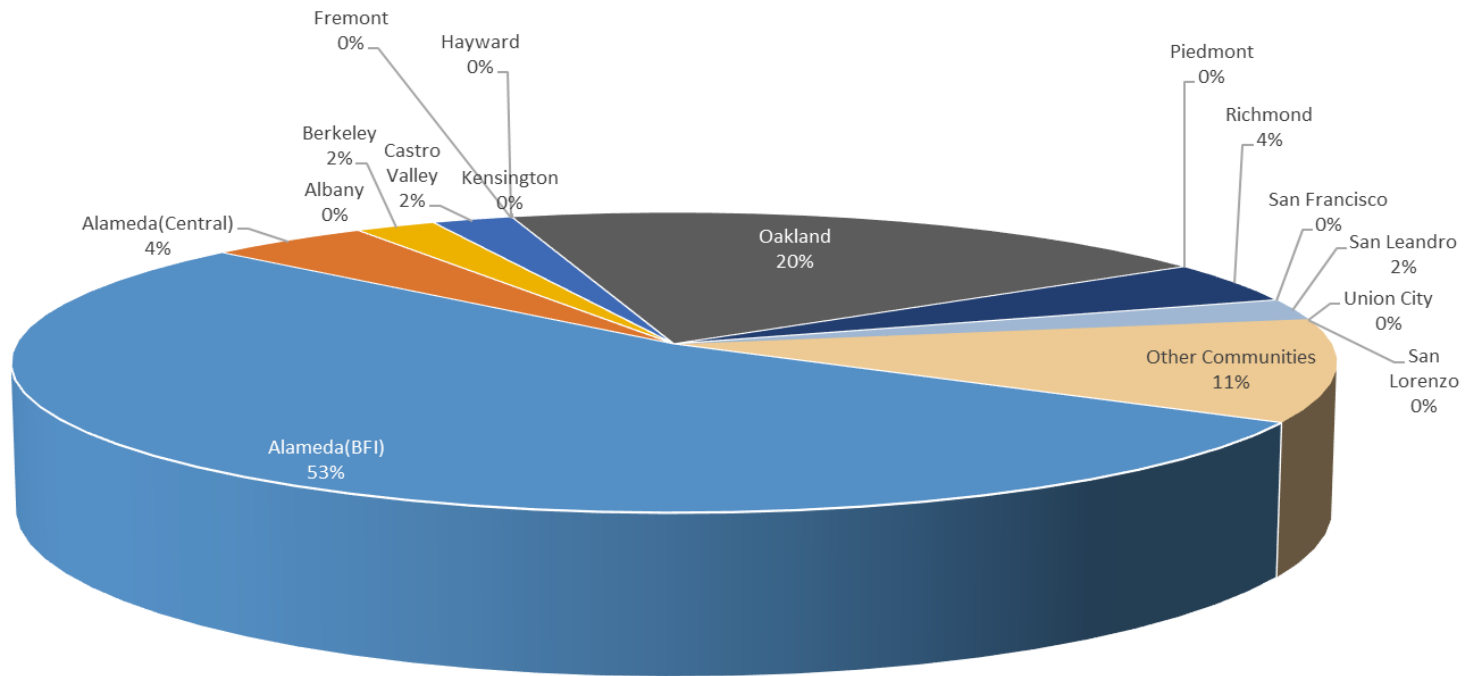
Community	Callers	Complaints
Alameda(BFI)	24	2231
Alameda(Central)	2	7
Albany	0	0
Berkeley	1	1
Castro Valley	1	24
Fremont	0	0
Hayw ard	0	0
Kensington	0	0
Oakland	9	2322
Piedmont	0	0
Richmond	2	295
San Francisco	0	0
San Leandro	1	8
Union City	0	0
San Lorenzo	0	0
Other Communities	5	87
Total	45	4975
Complaints by Type		
E-mail	2402	
View point App	2573	
Complaints by Time of Day		
Day ( 0700 - 1900 )	804	
Evening ( 1900 - 2200 )	1448	
Night ( 2200 - 0700 )	2723	
Complaints by Type of Operation		
Arrivals	2316	
Departures	2425	
Over-flights	151	
Touch & Go	83	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	370	
Helicopter	105	
Jet	4159	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	17	
Propeller	242	
Turbo-prop	82	



# Number of Callers

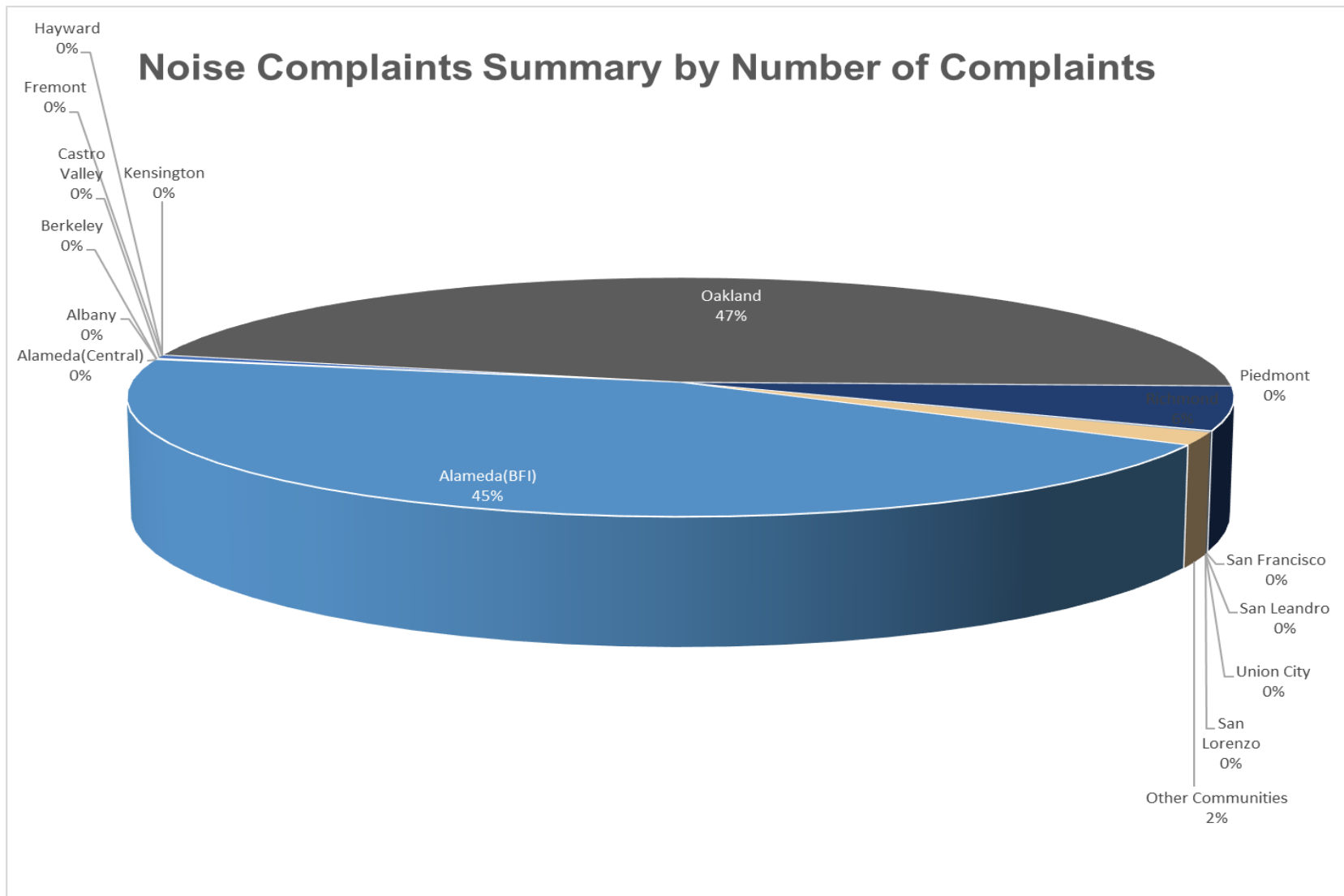
## February 2023

Noise Complaints Summary by Number of Callers



# Number of Complaints

## February 2023





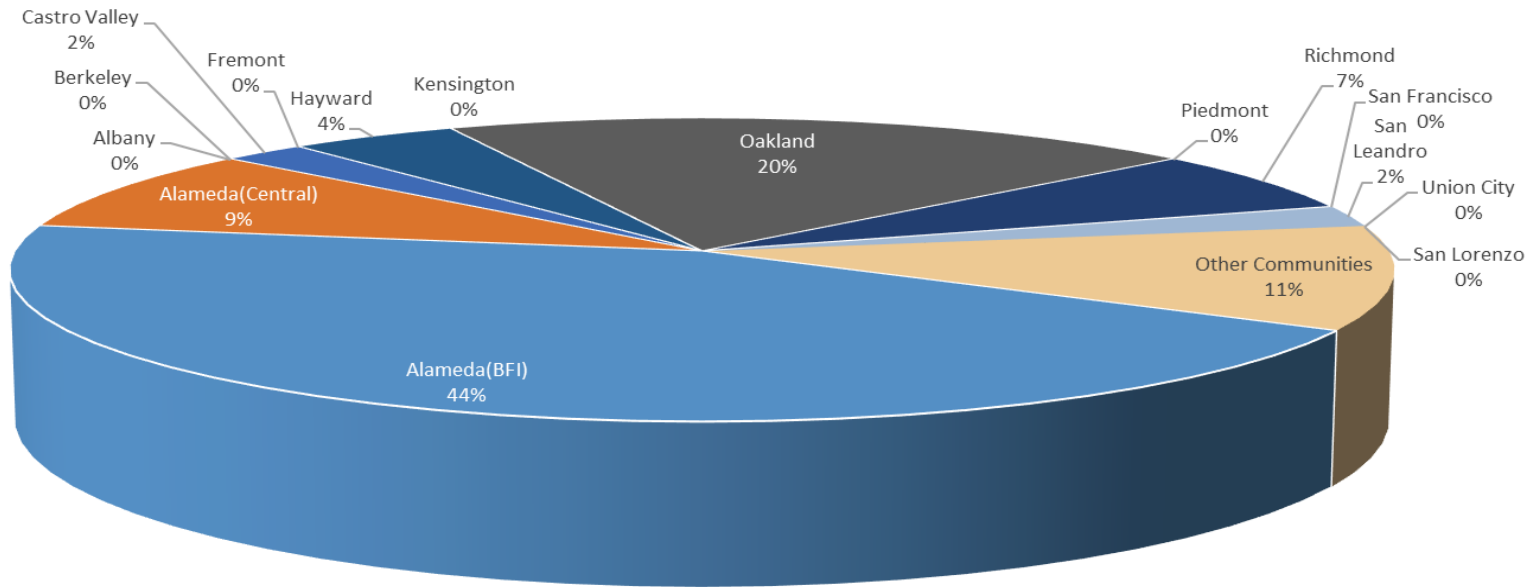
**Oakland International Airport  
Noise Complaint Summary  
March 2023**

Community	Callers	Complaints
Alameda(BFI)	20	1117
Alameda(Central)	4	6
Albany	0	0
Berkeley	0	0
Castro Valley	1	32
Fremont	0	0
Hayw ard	2	7
Kensington	0	0
Oakland	9	2350
Piedmont	0	0
Richmond	3	323
San Francisco	0	0
San Leandro	1	99
Union City	0	0
San Lorenzo	0	0
Other Communities	5	48
Total	45	3982
Complaints by Type		
E-mail	2445	
View point App	1537	
Complaints by Time of Day		
Day ( 0700 - 1900 )	752	
Evening ( 1900 - 2200 )	777	
Night ( 2200 - 0700 )	2453	
Complaints by Type of Operation		
Arrivals	2286	
Departures	1453	
Over-flights	181	
Touch & Go	62	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	181	
Helicopter	150	
Jet	3183	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	6	
Propeller	327	
Turbo-prop	135	

# Number of Callers

## March 2023

### Noise Complaints Summary by Number of Callers

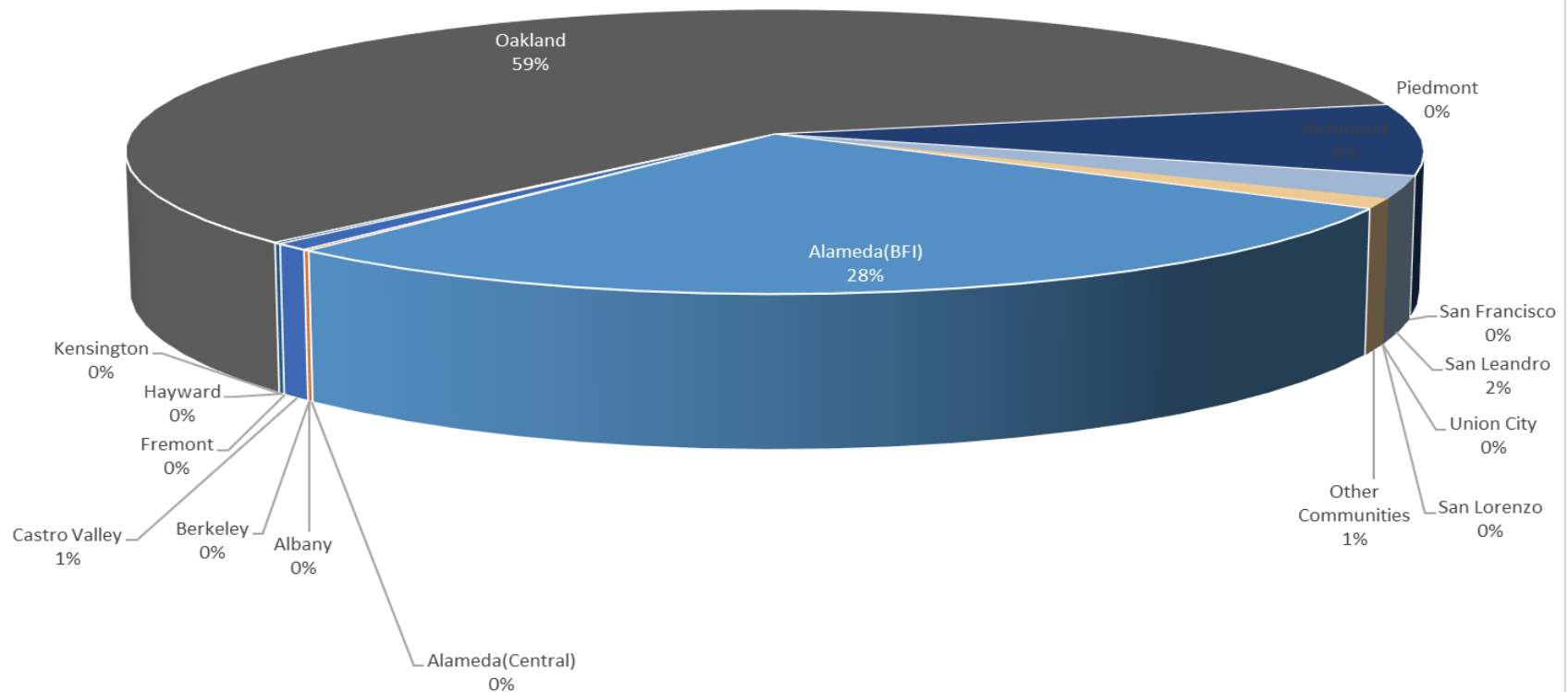


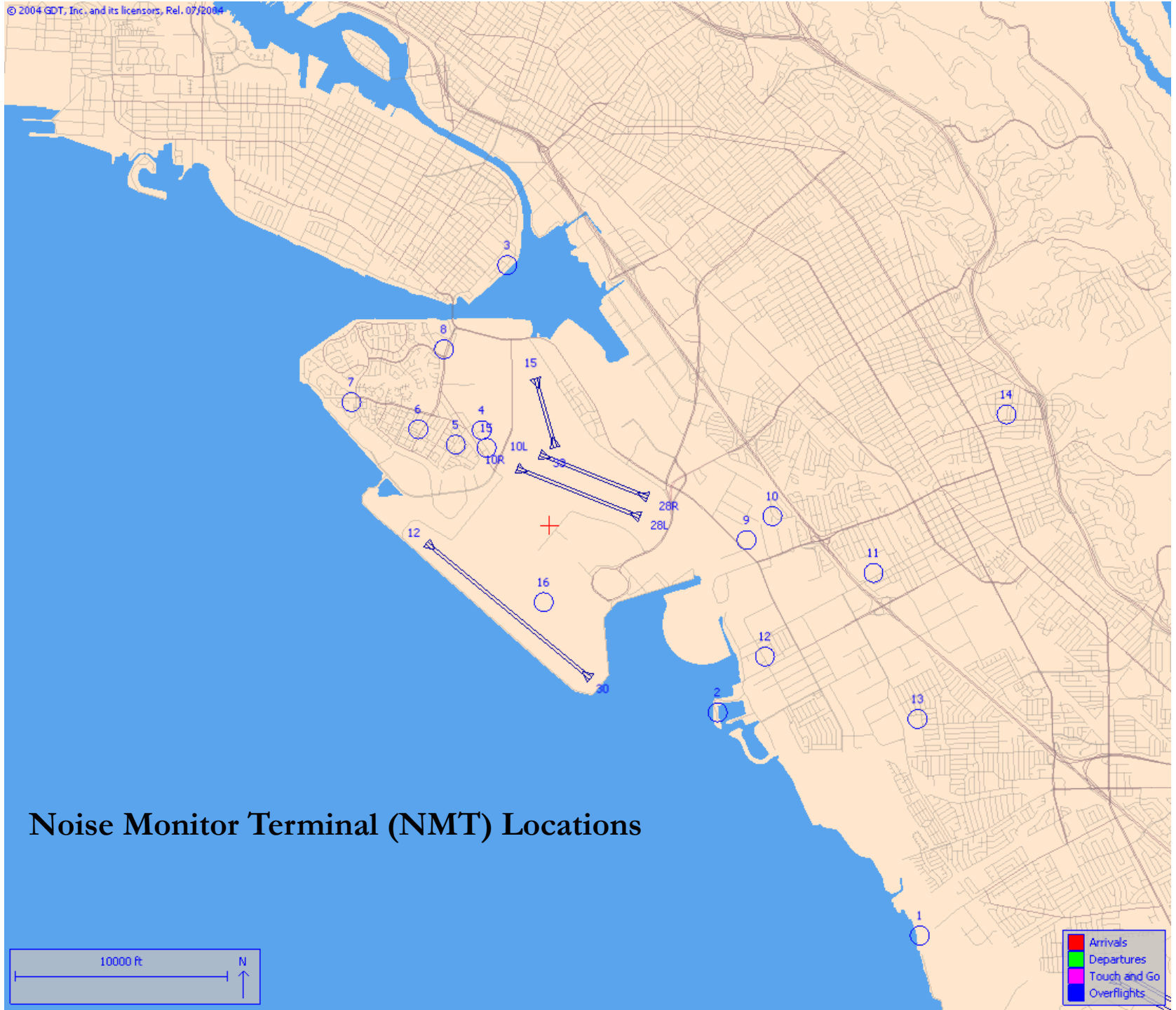


# Number of Complaints

## March 2023

### Noise Complaints Summary by Number of Complaints





## Noise Monitor Terminal (NMT) Locations