

NOISE FORUM SUMMARY

North/South Field Working Groups



NOISE ABATEMENT REPORT

FIRST QUARTER 2022

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.

Compliance Monitoring Quarterly Summary Comparison First Quarter 2022				
	2021Q1		2022Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	95%	5%	93%	7%
Total Airport-wide Corporate Jet Departures	2,209	113	2,454	175
Runway 10R/L Jet Landing Compliance	78%	22%	85%	15%
Total Southeast Plan Corporate Jet Landings	147	42	92	16
North Field VFR Departure Compliance	93%	7%	91%	9%
Total Runways 28R/L & 33 Departures	265	21	224	21
North Field Quiet Hours Compliance	76%	24%	76%	24%
Total North Field Quiet Hours Departures	105	34	103	33
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	10,822	7	15,423	7
Night Time Departure Compliance	99%	1%	100%	0%
Total Runway 30 Night Turbojet Departures	2,024	19	2,431	12
Runway 12 Night Departure Compliance	100%	0%	100%	0%
Total Runway 12 Night Turbojet Departures	120	0	55	0
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	3,487	5	3,757	0
100 Degree Radial Turbojet Landing Compliance	98%	2%	99%	0%
Total 100 Degree Radial Turbojet Landings	640	14	817	6
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	11	0	5	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

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

2021Q1
95% Compliance
(2,322 total departures)
(113 non-compliant)

Heading: 325
Elevation: 15

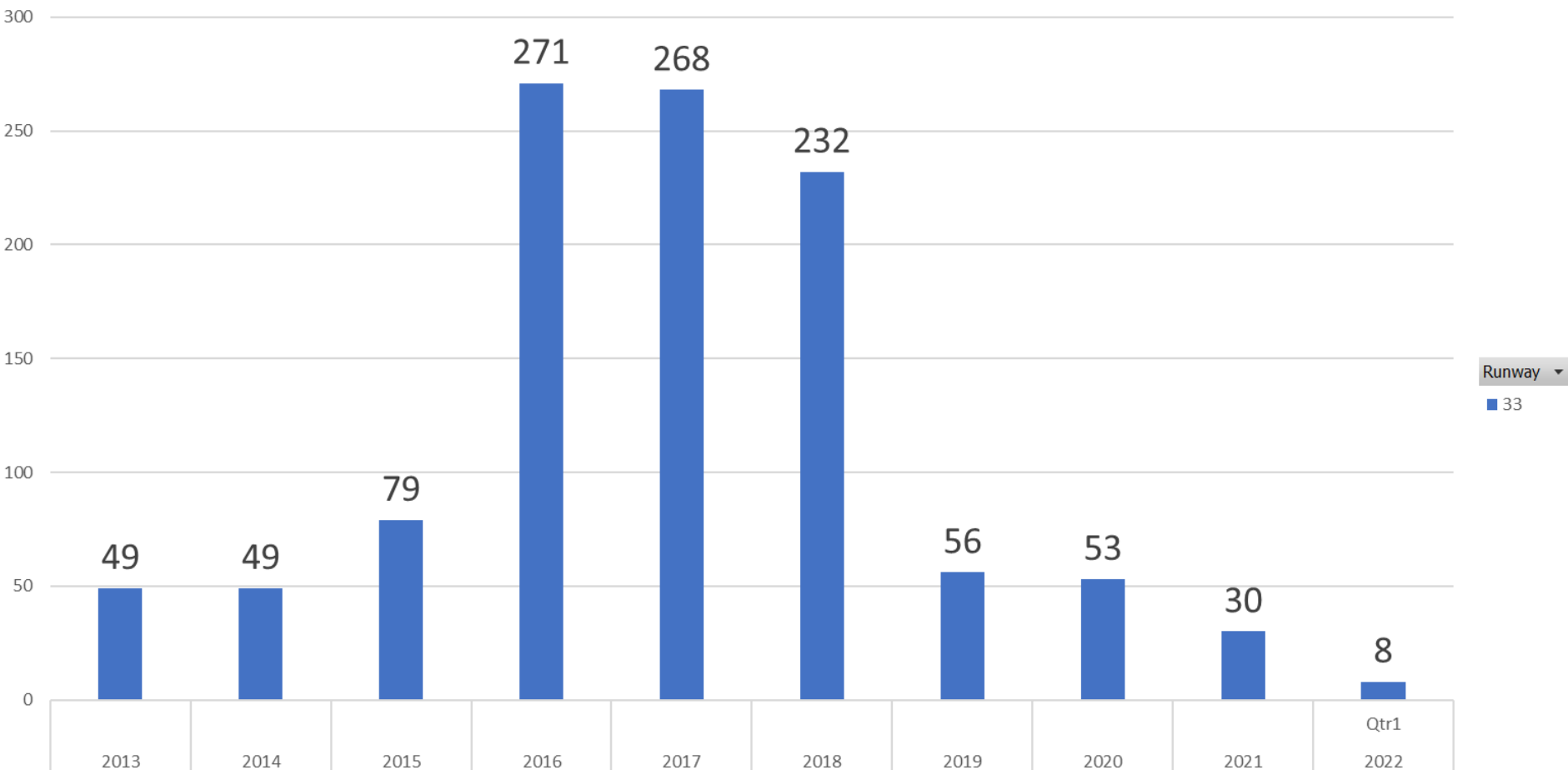
■ Arrivals
■ Departures
■ Touch and Go
■ Overflights

RUNWAY 33 JET DEPARTURES

FIRST Quarter 2022

Count of Aircraft Type

Runway 33 Jet Departure Trend Analysis



Years ▾ Quarters ▾ Date Time ▾

+ -

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

2022Q1

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

2021Q1

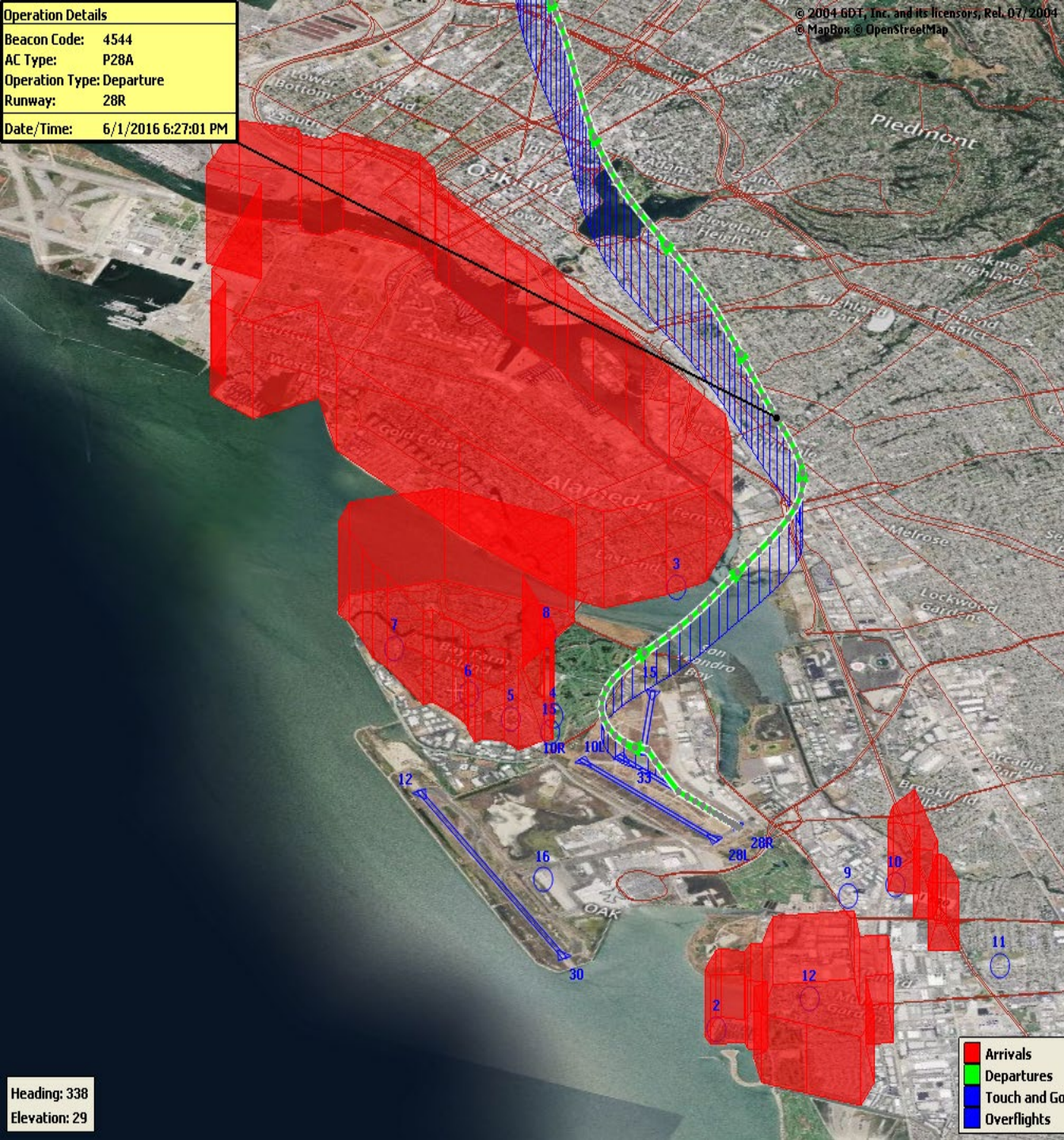
78% Compliance
(189 total landings)
(42 non-compliant)

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

Heading: 338
Elevation: 29



VFR Aircraft Departure NAP

2022Q1

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

2021Q1

93% Compliance
(286 total departures)
(21 non-compliant)



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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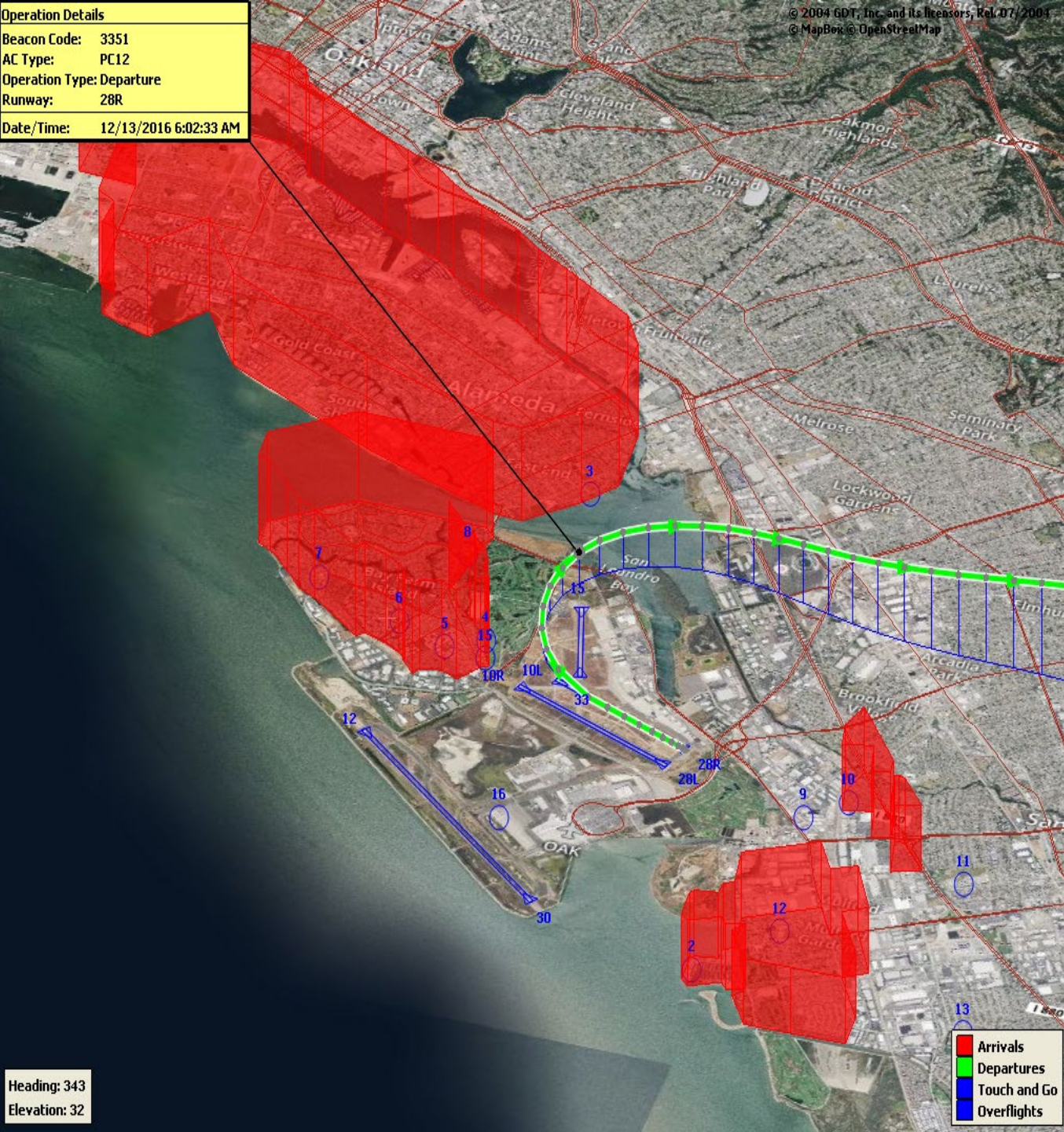
North Field Quiet Hours NAP

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

2021Q1
76% Compliance
(139 total departures)
(34 non-compliant)

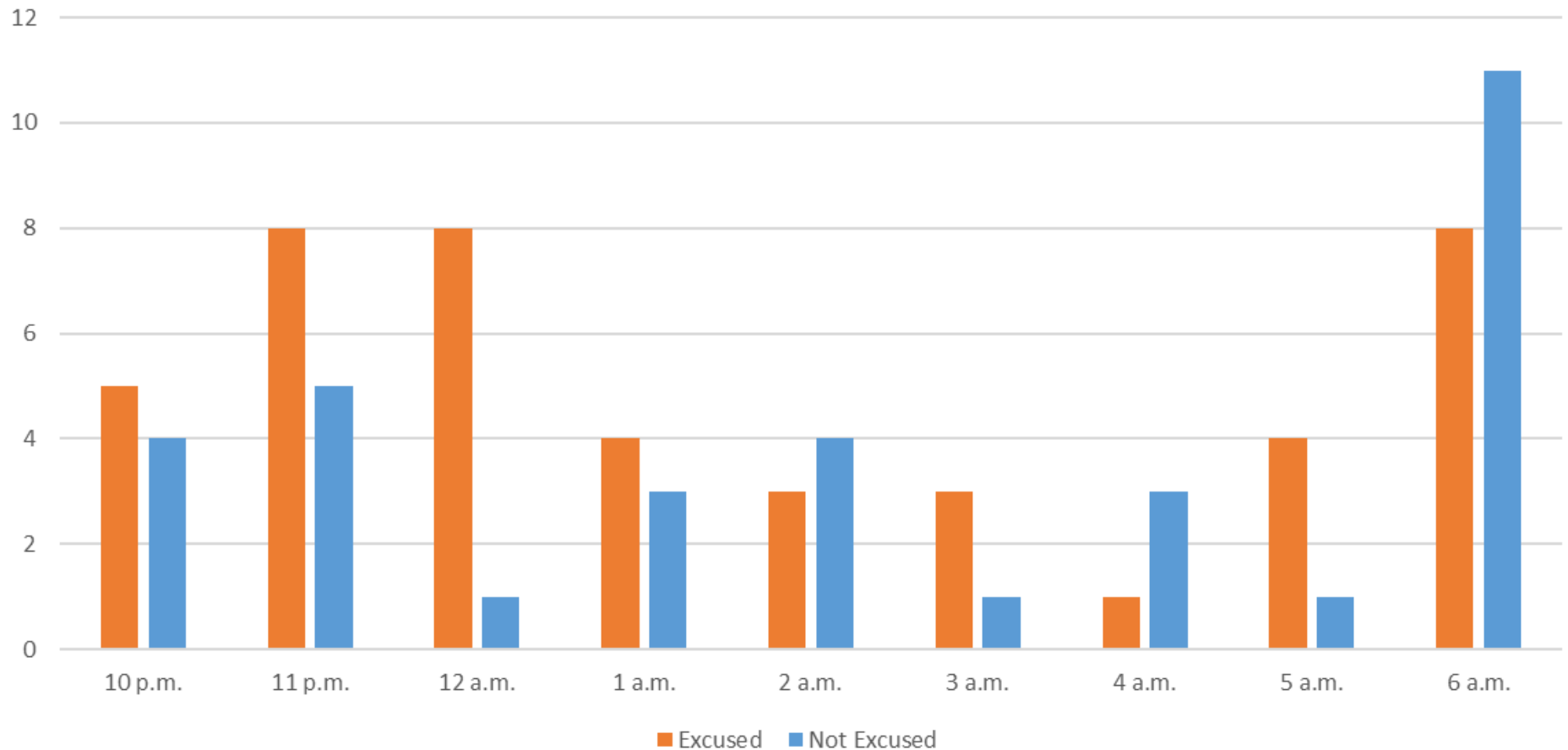
Heading: 343
Elevation: 32

Arrivals
Departures
Touch and Go
Overflights



North Field Quiet Hours NAP Non-Compliant by Hour

Excused/Not Excused Violation Count by Hour



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

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

*REBAS Gate non-compliant = 11

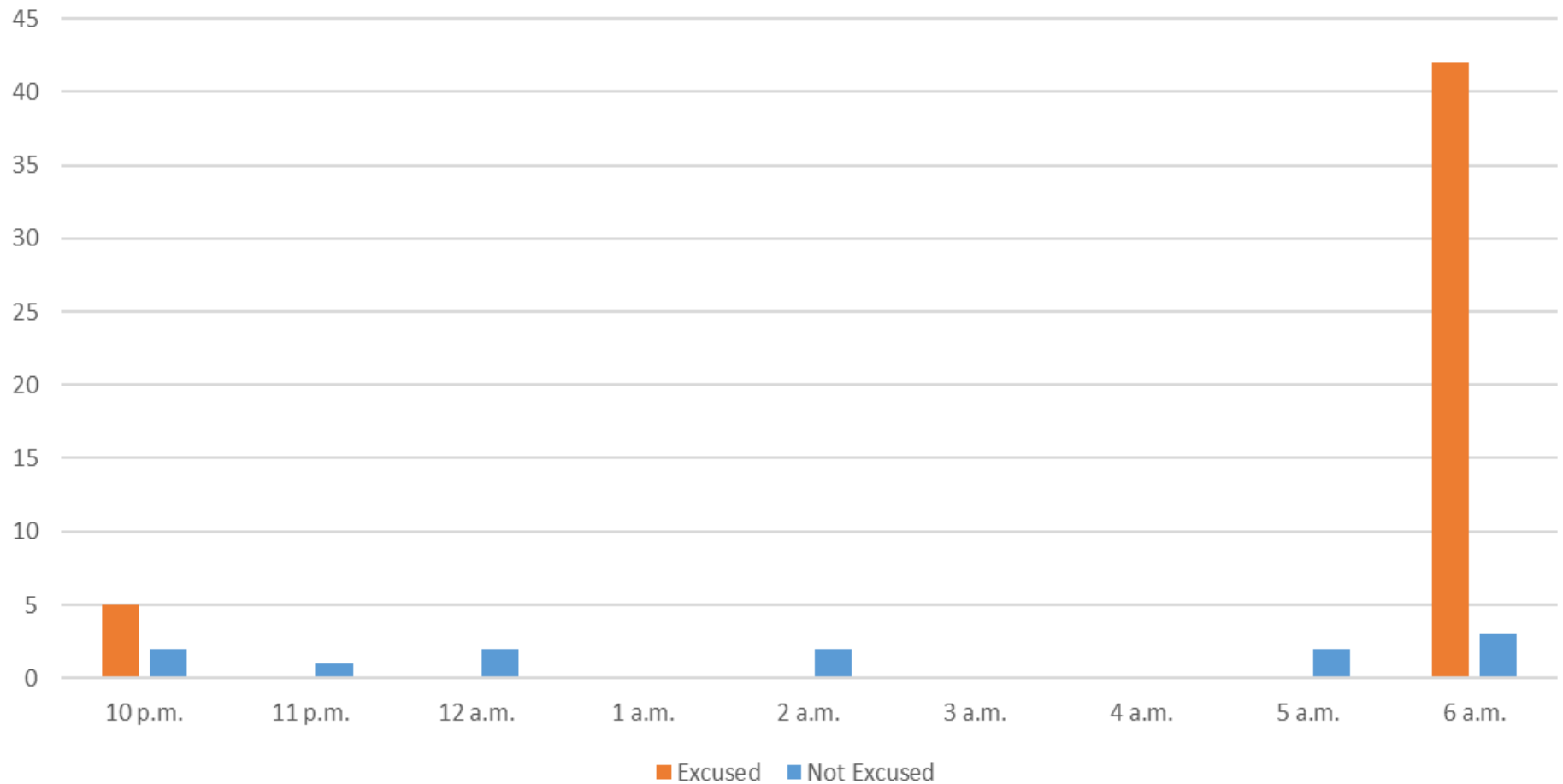
2021Q1
99% Compliance
(2,043 total departures)
(19 non-compliant)

Heading: 349
 Elevation: 59

Arrivals
 Departures
 Touch and Go
 Overflights

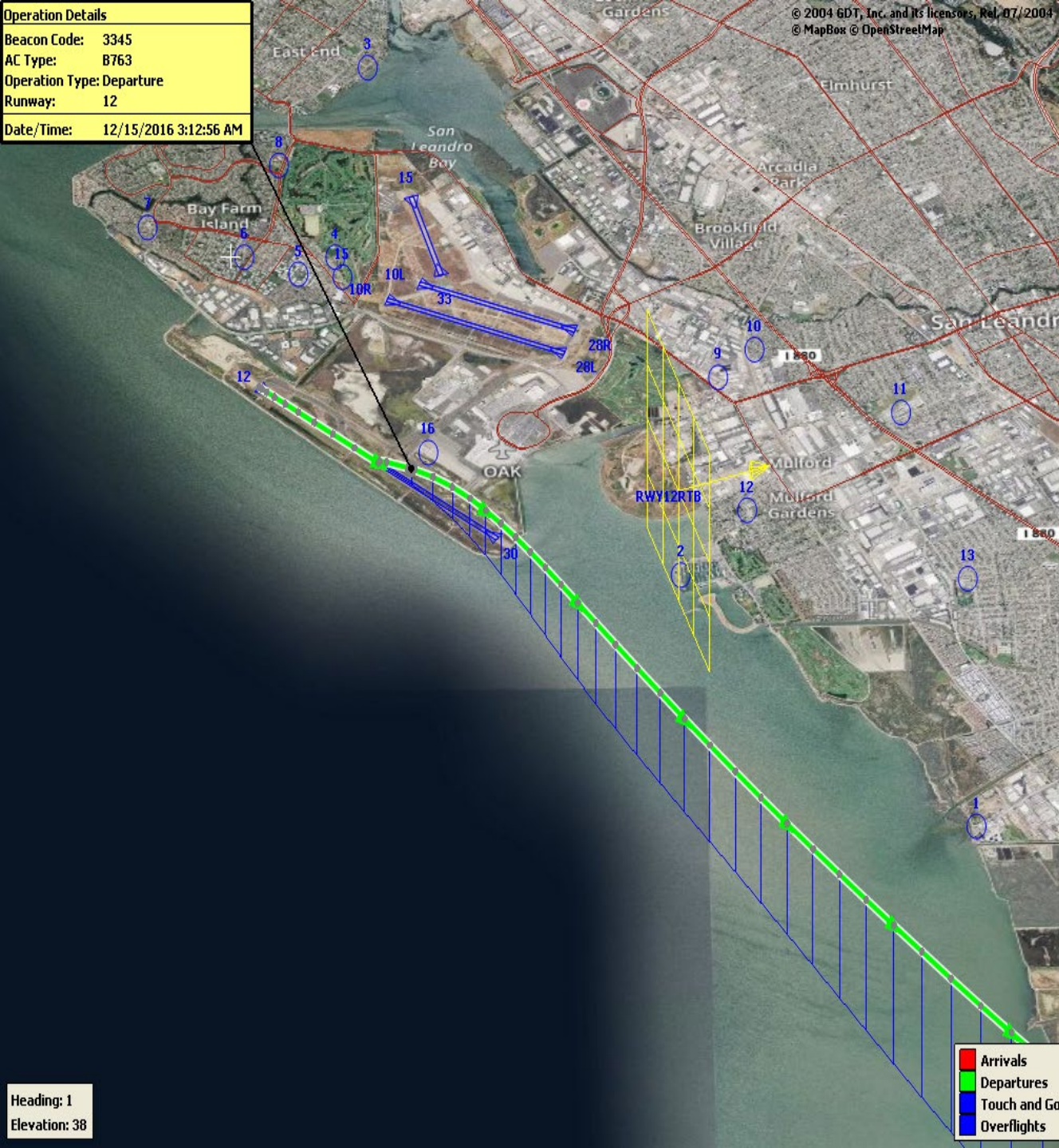
Night Time NAP Non-Compliant Count by Hour

Excused/Not Excused Violation Count by Hour



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

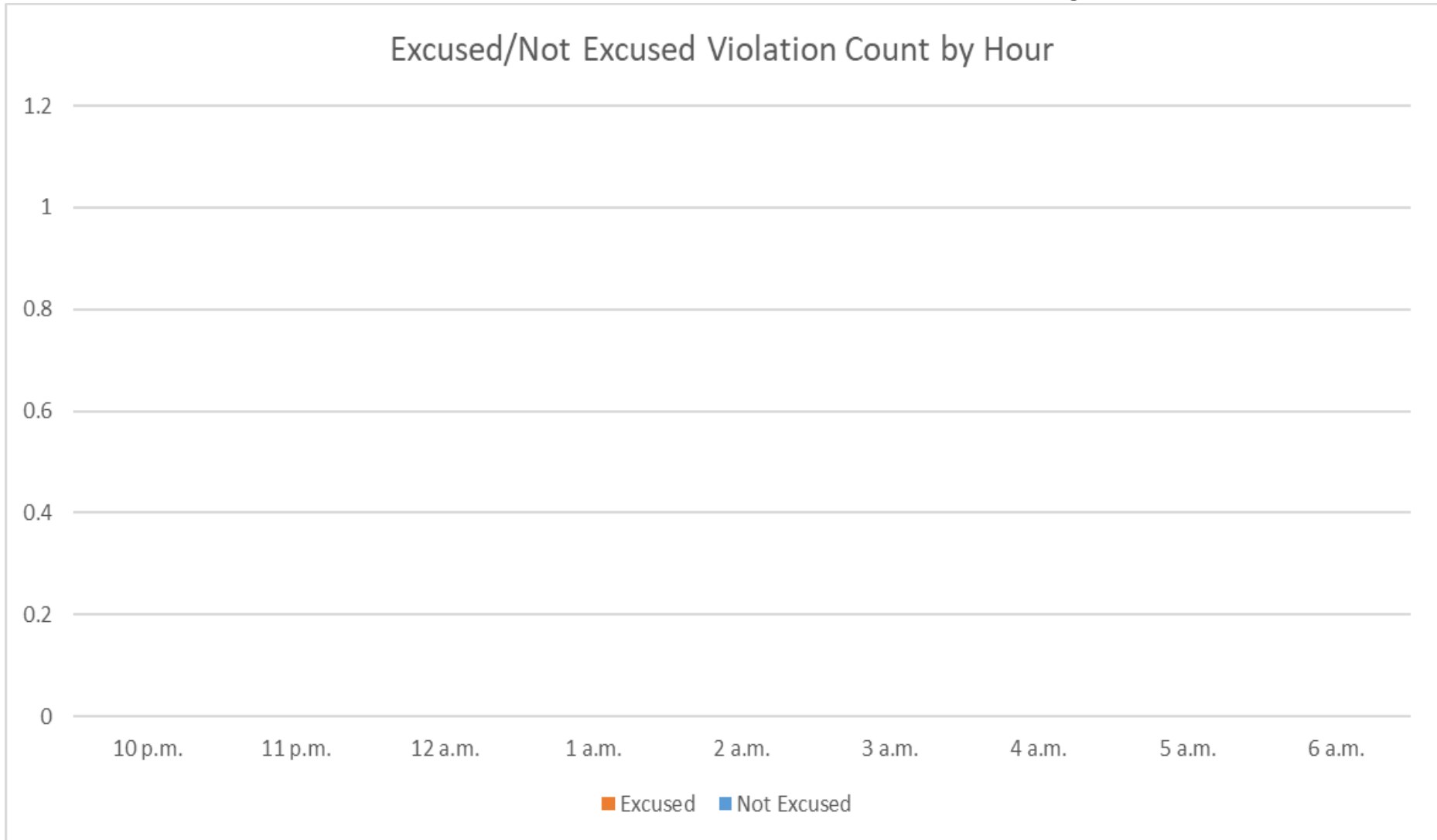
2022Q1

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

2021Q1

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

Runway 12 Night Departure Non-Compliant Count by Hour



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

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

2021Q1
100% Compliance
(10,829 total departures)
(7 non-compliant)

Heading: 299
Elevation: 36



Arrivals
Departures
Touch and Go
Overflights

Runway 30 East Turn NAP

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

*Excused Departures = 3

2021Q1
100% Compliance
(3,492 total departures)
(5 non-compliant)

Operation Details

Beacon Code: 3777

AC Type: B737

Operation Type: Departure

Runway: 30

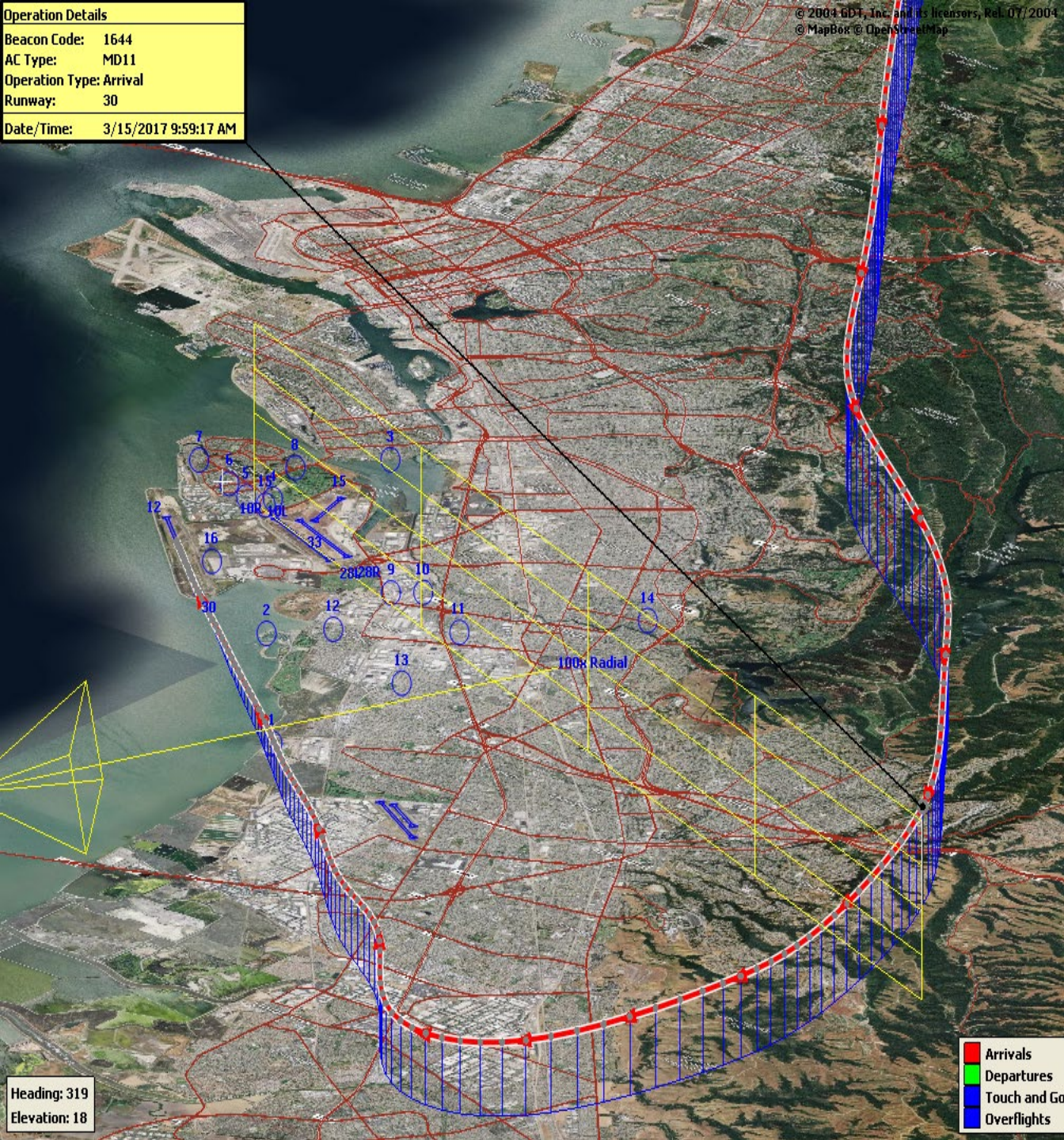
Date/Time: 3/15/2017 9:53:47 AM

Alameda Rwy 30

Arrivals
Departures
Touch and Go
Overflights

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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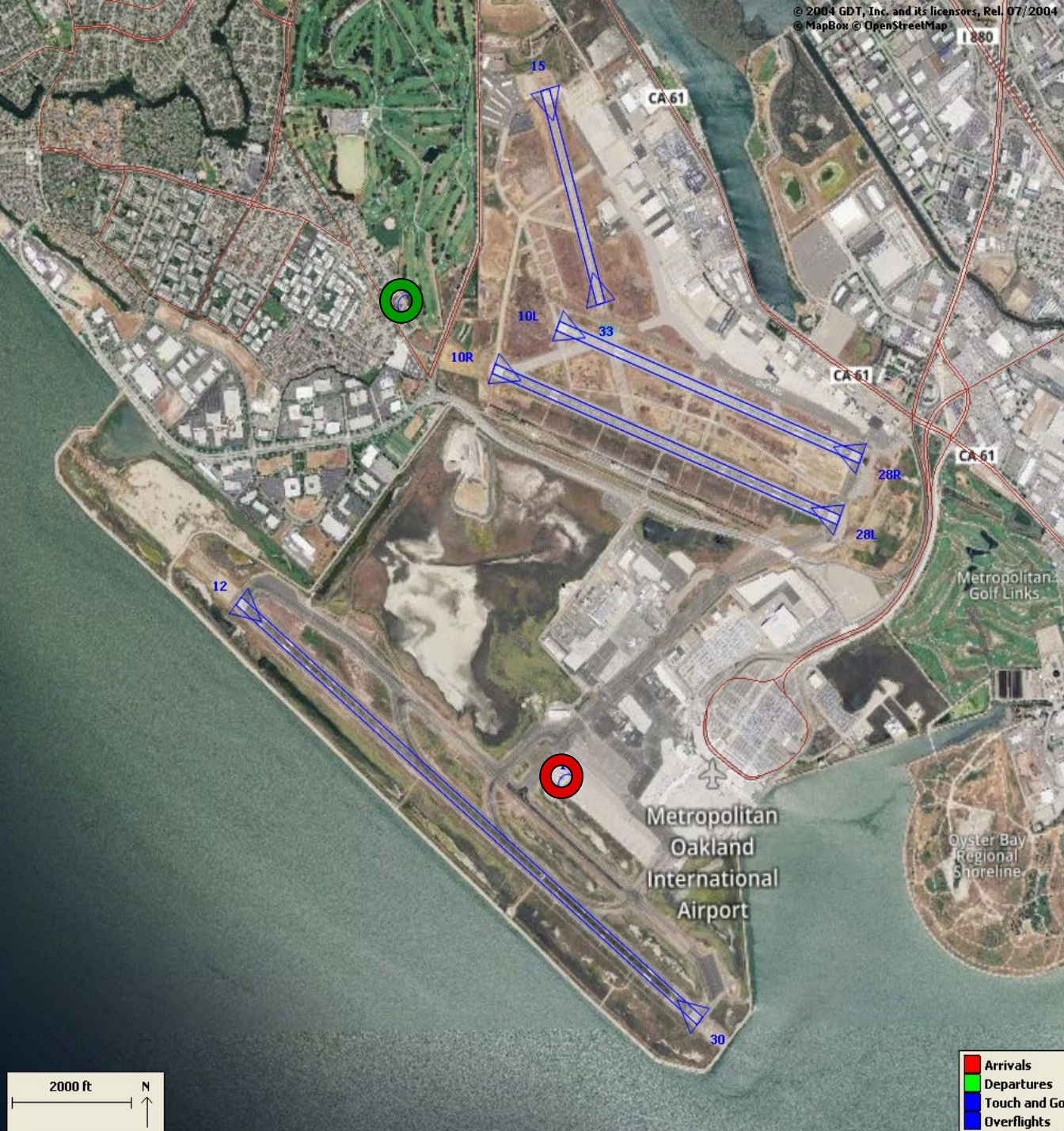
100 Degree Radial At 3,000 ft. NAP

2022Q1

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

2021Q1

98% Compliance
(654 total landings)
(14 non-compliant)



Engine Run-up NAP

2022Q1

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

2021Q1

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

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

Compliance Monitoring Quarterly Summary Comparison FIRST Quarter 2022 - Quarter-to-Quarter				
	2021Q4		2022Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	95%	5%	93%	7%
Total Airport-wide Corporate Jet Departures	2,948	168	2,454	175
Runway 10R/L Jet Landing Compliance	89%	11%	85%	15%
Total Southeast Plan Corporate Jet Landings	281	33	92	16
North Field VFR Departure Compliance	85%	15%	91%	9%
Total Runways 28R/L & 33 Departures	169	31	224	21
North Field Quiet Hours Compliance	79%	21%	76%	24%
Total North Field Quiet Hours Departures	141	37	103	33
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	14,379	9	15,423	7
Night Time Departure Compliance	99%	1%	100%	0%
Total Runway 30 Night Turbojet Departures	2,381	24	2,431	12
Runway 12 Night Departure Compliance	99%	1%	100%	0%
Total Runway 12 Night Turbojet Departures	313	4	55	0
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	3,948	5	3,757	0
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	0%
Total 100 Degree Radial Turbojet Landings	739	4	817	6
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	6	0	5	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 = 136

First Quarter 2022 (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	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	1
2	16	4	0.0	0.7%	0	0.0	0.0%	0	0.0	0.0%	20
3	44	3	0.0	0.5%	1	0.0	0.2%	1	0.0	0.2%	49
4	33	38	0.4	6.7%	27	0.3	4.8%	9	0.1	1.6%	107
5	61	21	0.2	3.7%	14	0.2	2.5%	9	0.1	1.6%	105
6	53	10	0.1	1.8%	12	0.1	2.1%	7	0.1	1.2%	82
7	26	7	0.1	1.2%	6	0.1	1.1%	1	0.0	0.2%	40
8	29	21	0.2	3.7%	1	0.0	0.2%	0	0.0	0.0%	51
9	11	5	0.1	0.9%	4	0.0	0.7%	2	0.0	0.4%	22
10	49	9	0.1	1.6%	1	0.0	0.2%	1	0.0	0.2%	60
11	3	1	0.0	0.2%	1	0.0	0.2%	0	0.0	0.0%	5
12	8	5	0.1	0.9%	2	0.0	0.4%	0	0.0	0.0%	15
13	3	0	0.0	0.0%	1	0.0	0.2%	0	0.0	0.0%	4
14	24	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	25
All NMTs	360	126	1	0	70	1	0	30	0	0	586

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 120

First Quarter 2022 (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	44	3	0.0	1.3%	1	0.0	0.4%	1	0.0	0.4%	49
4	33	38	0.4	15.9%	27	0.3	11.3%	9	0.1	3.8%	107
5	61	21	0.2	8.8%	14	0.2	5.9%	9	0.1	3.8%	105
6	53	10	0.1	4.2%	12	0.1	5.0%	7	0.1	2.9%	82
7	26	7	0.1	2.9%	6	0.1	2.5%	1	0.0	0.4%	40
8	29	21	0.2	8.8%	1	0.0	0.4%	0	0.0	0.0%	51
Total	246	100	1.1		61	0.7		27	0.3		434

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 16

First Quarter 2022 (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	16	4	0.0	1.2%	0	0.0	0.0%	0	0.0	0.0%	20
9	11	5	0.1	1.5%	4	0.0	1.2%	2	0.0	0.6%	22
10	49	9	0.1	2.7%	1	0.0	0.3%	1	0.0	0.3%	60
11	3	1	0.0	0.3%	1	0.0	0.3%	0	0.0	0.0%	5
12	8	5	0.1	1.5%	2	0.0	0.6%	0	0.0	0.0%	15
13	3	0	0.0	0.0%	1	0.0	0.3%	0	0.0	0.0%	4
14	24	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	25
Total	114	25	0.3		9	0.1		3	0.0		151

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	16
DC10/MD10	27	9	30	67	19
MD11	217	72	158	67	19
A306	17	6	10	65	14
B757	190	63	104	65	15
B77L	117	39	35	65	12
Difference [A-B]					
DC10/MD10		-78	-2	-2	-3
MD11		40	145	-3	-5
A306		-61	-11	-4	-11

(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 2021, 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 2021 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	163	54	64	66	75
DC10/MD10	44	15	35	66	75
MD11	163	54	110	68	77
A306	109	36	45	65	75
B757	159	53	60	65	75
B77L	115	38	28	65	74
Difference [A-B]					
DC10/MD10		-72	3	-3	-3
MD11		22	97	-2	-2
A306		-31	24	-2	-8

(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.

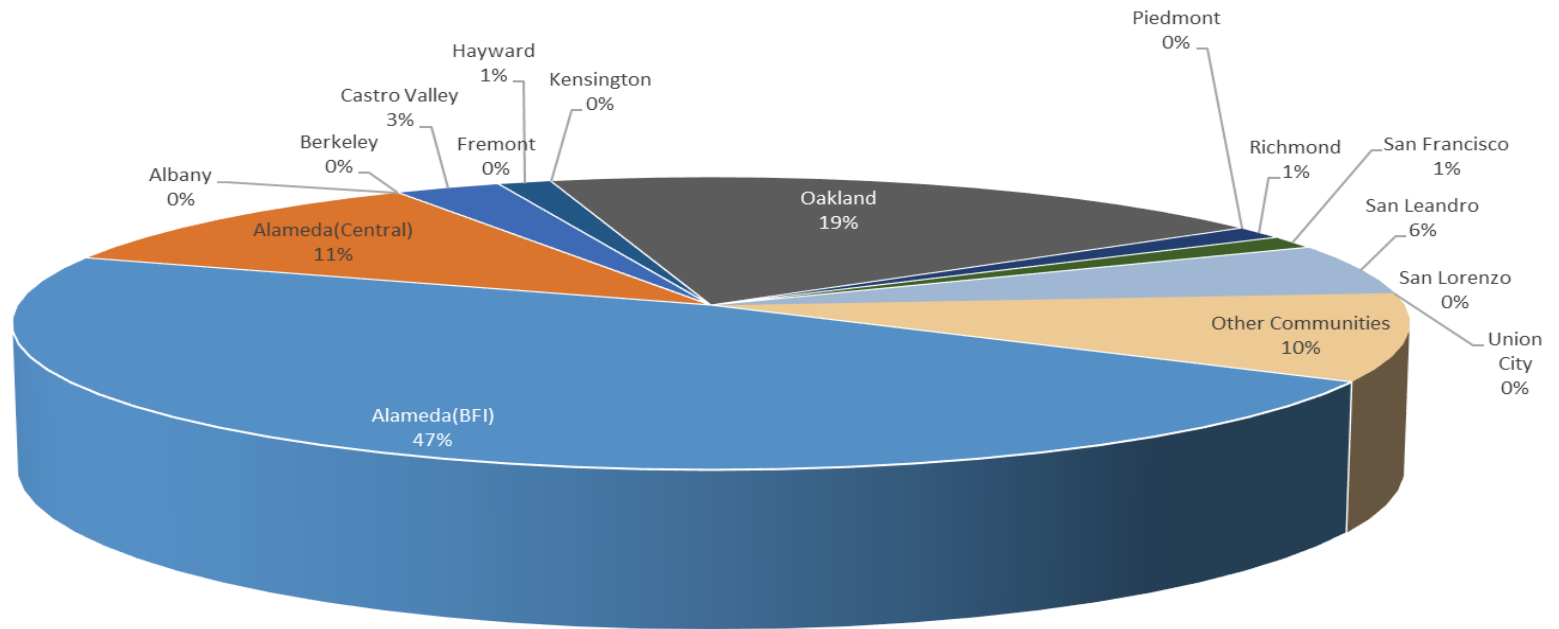
Source: ANOMS (Airport Noise and Operations Monitoring System)

Oakland International Airport Noise Complaint Summary January 2022		
Community	Callers	Complaints
Alameda(BFI)	34	257
Alameda(Central)	8	19
Albany	0	0
Berkeley	0	0
Castro Valley	2	38
Fremont	0	0
Hayward	1	3
Kensington	0	0
Oakland	14	2698
Piedmont	0	0
Richmond	1	185
San Francisco	1	1
San Leandro	4	36
Union City	0	0
San Lorenzo	0	0
Other Communities	7	213
Total	72	3450
Complaints by Type		
Website	0	
E-mail	2721	
Phone	0	
View point App	729	
Complaints by Time of Day		
Day (0700 - 1900)	777	
Evening (1900 - 2200)	691	
Night (2200 - 0700)	1982	
Complaints by Type of Operation		
Arrivals	2206	
Departures	1152	
Over-flights	50	
Touch & Go	42	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	398	
Helicopter	15	
Jet	2513	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	4	
Propeller	141	
Turbo-prop	379	

Number of Callers

January 2022

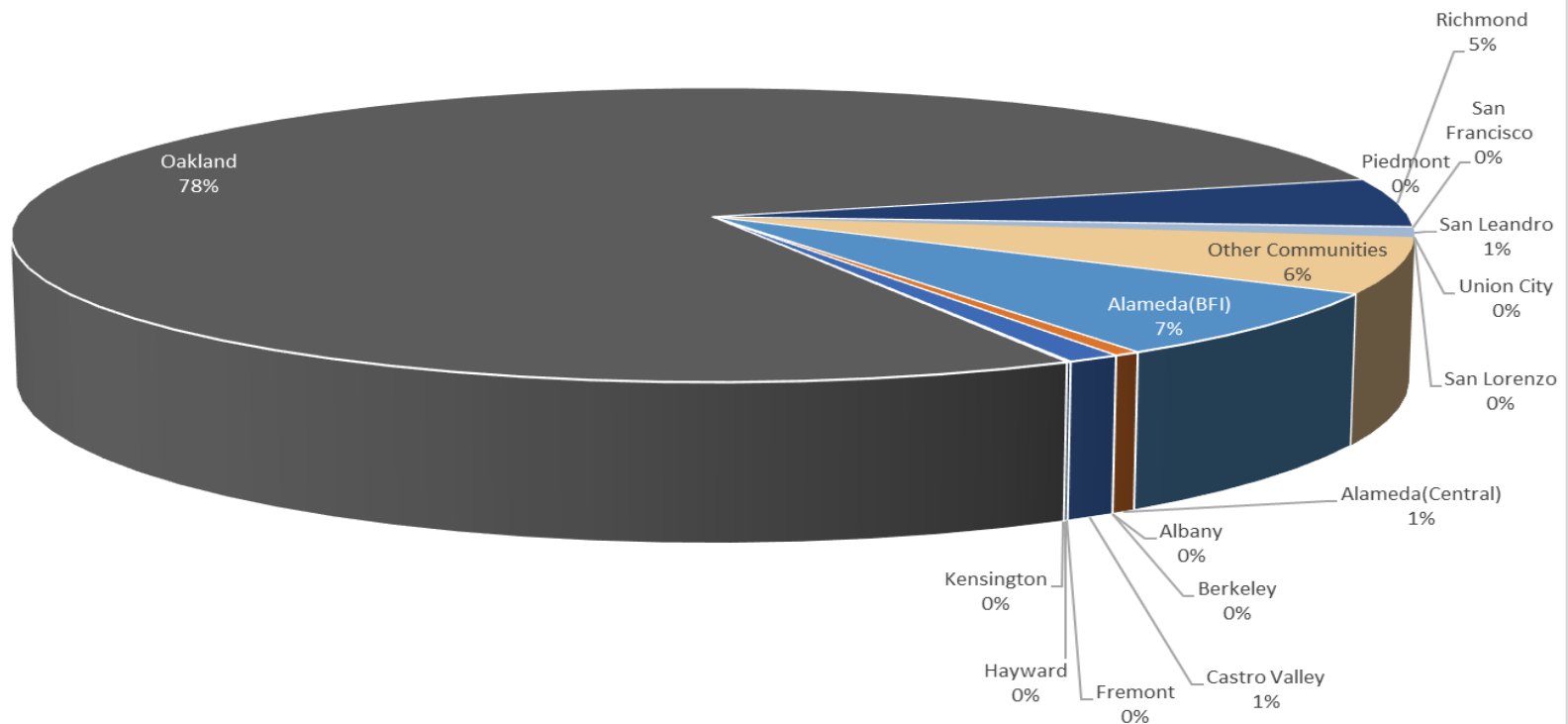
Noise Complaints Summary by Number of Callers



Number of Complaints

January 2022

Noise Complaints Summary by Number of Complaints

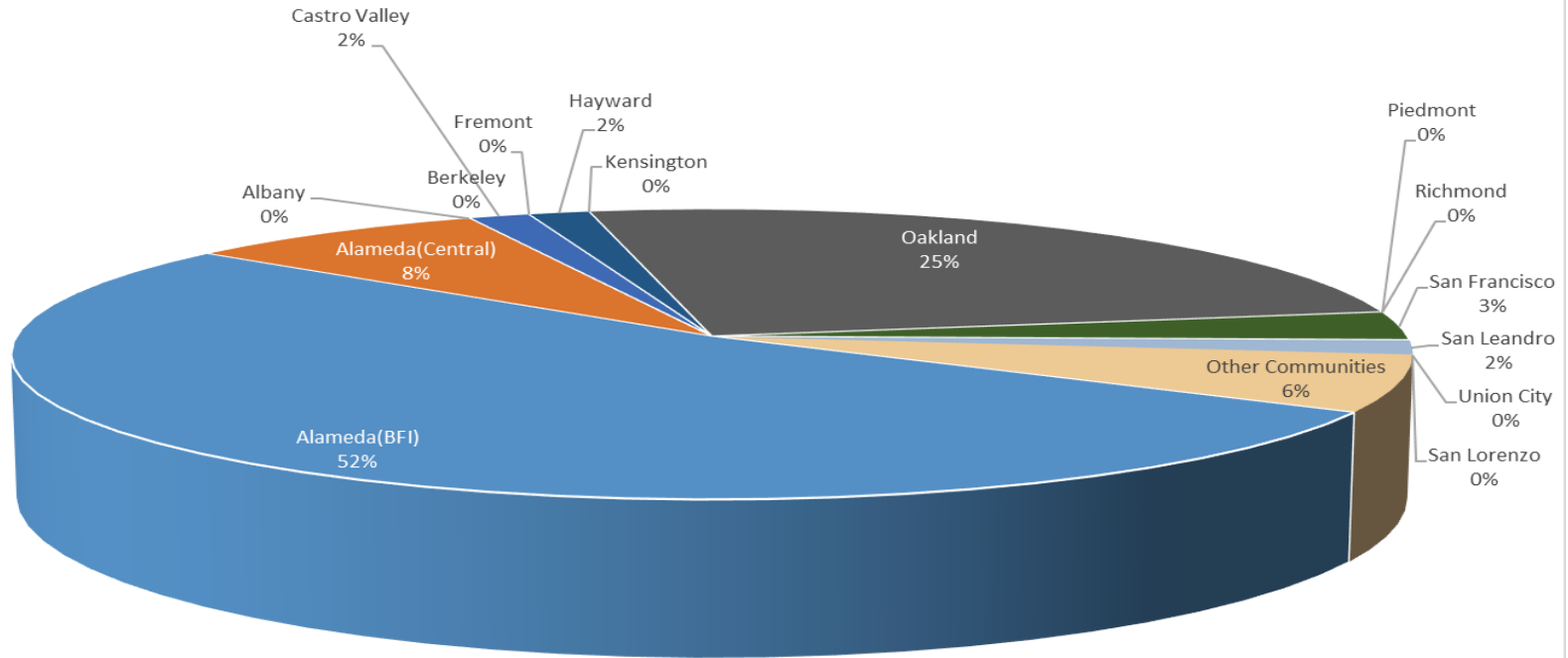


Oakland International Airport Noise Complaint Summary February 2022		
Community	Callers	Complaints
Alameda(BFI)	33	192
Alameda(Central)	5	12
Albany	0	0
Berkeley	0	0
Castro Valley	1	29
Fremont	0	0
Hayward	1	5
Kensington	0	0
Oakland	16	2709
Piedmont	0	0
Richmond	0	0
San Francisco	2	2
San Leandro	1	1
Union City	0	0
San Lorenzo	0	0
Other Communities	4	113
Total	63	3063
Complaints by Type		
Website	0	
E-mail	2623	
Phone	0	
View point App	440	
Complaints by Time of Day		
Day (0700 - 1900)	724	
Evening (1900 - 2200)	745	
Night (2200 - 0700)	1594	
Complaints by Type of Operation		
Arrivals	2027	
Departures	902	
Over-flights	109	
Touch & Go	25	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	105	
Helicopter	6	
Jet	2705	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	2	
Propeller	164	
Turbo-prop	81	

Number of Callers

February 2022

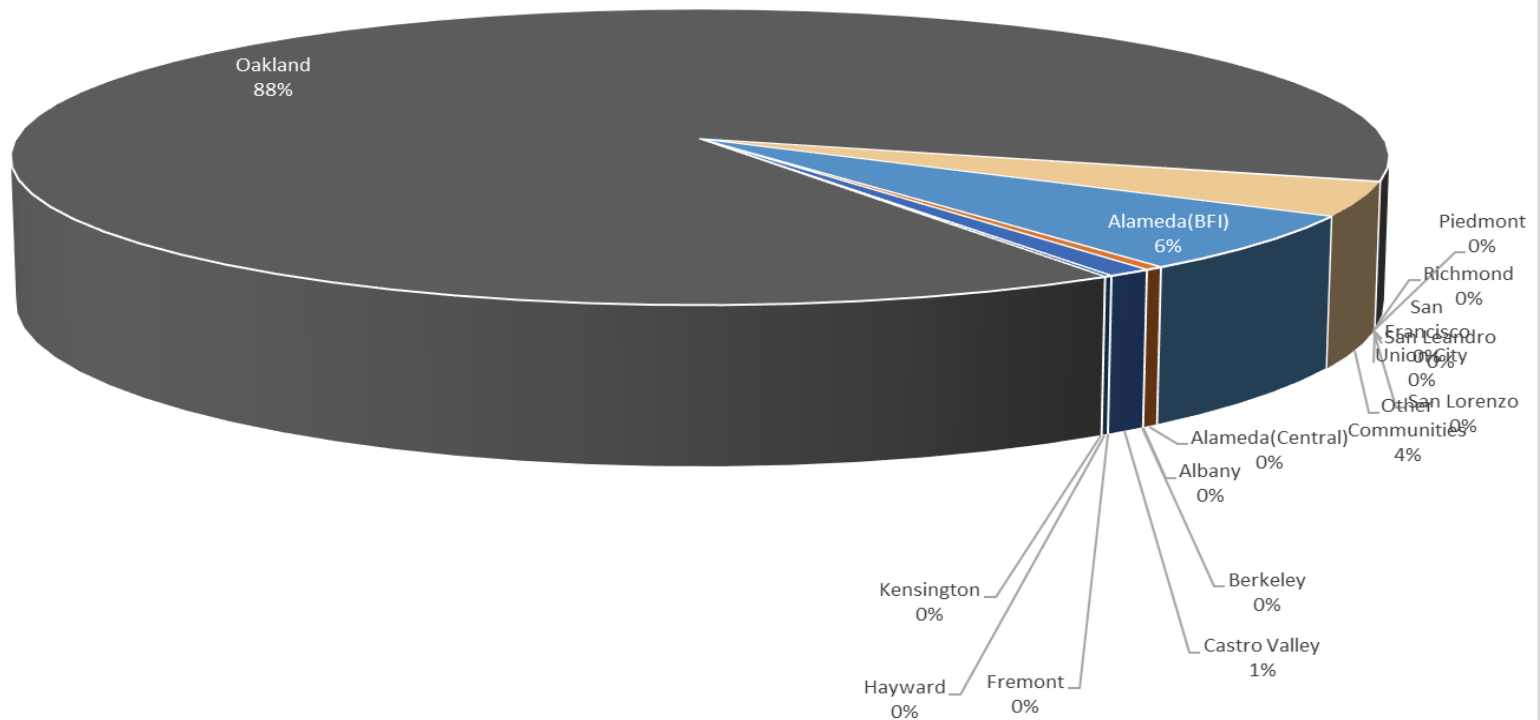
Noise Complaints Summary by Number of Callers



Number of Complaints

February 2022

Noise Complaints Summary by Number of Complaints

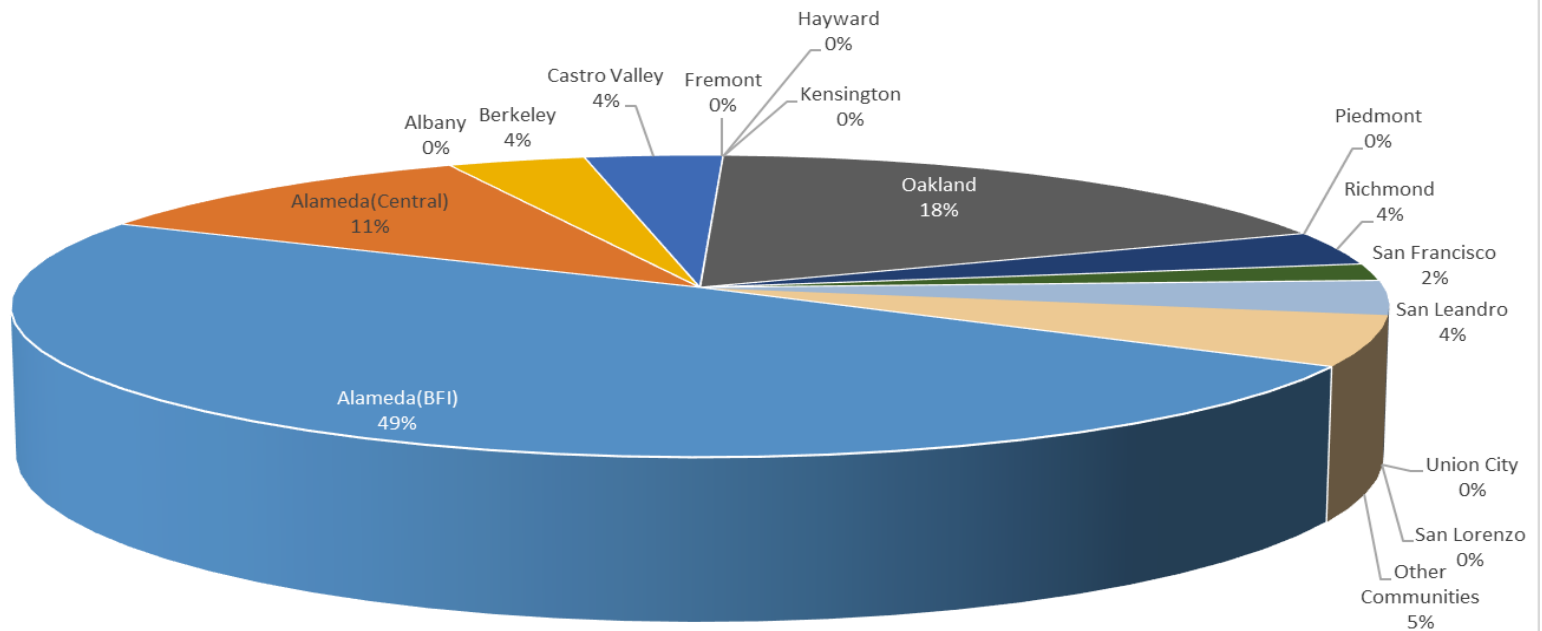


Oakland International Airport Noise Complaint Summary March 2022		
Community	Callers	Complaints
Alameda(BFI)	27	225
Alameda(Central)	6	17
Albany	0	0
Berkeley	2	3
Castro Valley	2	40
Fremont	0	0
Hayward	0	0
Kensington	0	0
Oakland	10	3027
Piedmont	0	0
Richmond	2	54
San Francisco	1	1
San Leandro	2	18
Union City	0	0
San Lorenzo	0	0
Other Communities	3	111
Total	55	3496
Complaints by Type		
Website	0	
E-mail	2927	
Phone	0	
View point App	569	
Complaints by Time of Day		
Day (0700 - 1900)	518	
Evening (1900 - 2200)	1268	
Night (2200 - 0700)	1710	
Complaints by Type of Operation		
Arrivals	1932	
Departures	1509	
Over-flights	14	
Touch & Go	41	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	128	
Helicopter	11	
Jet	3240	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	2	
Propeller	77	
Turbo-prop	38	

Number of Callers

March 2022

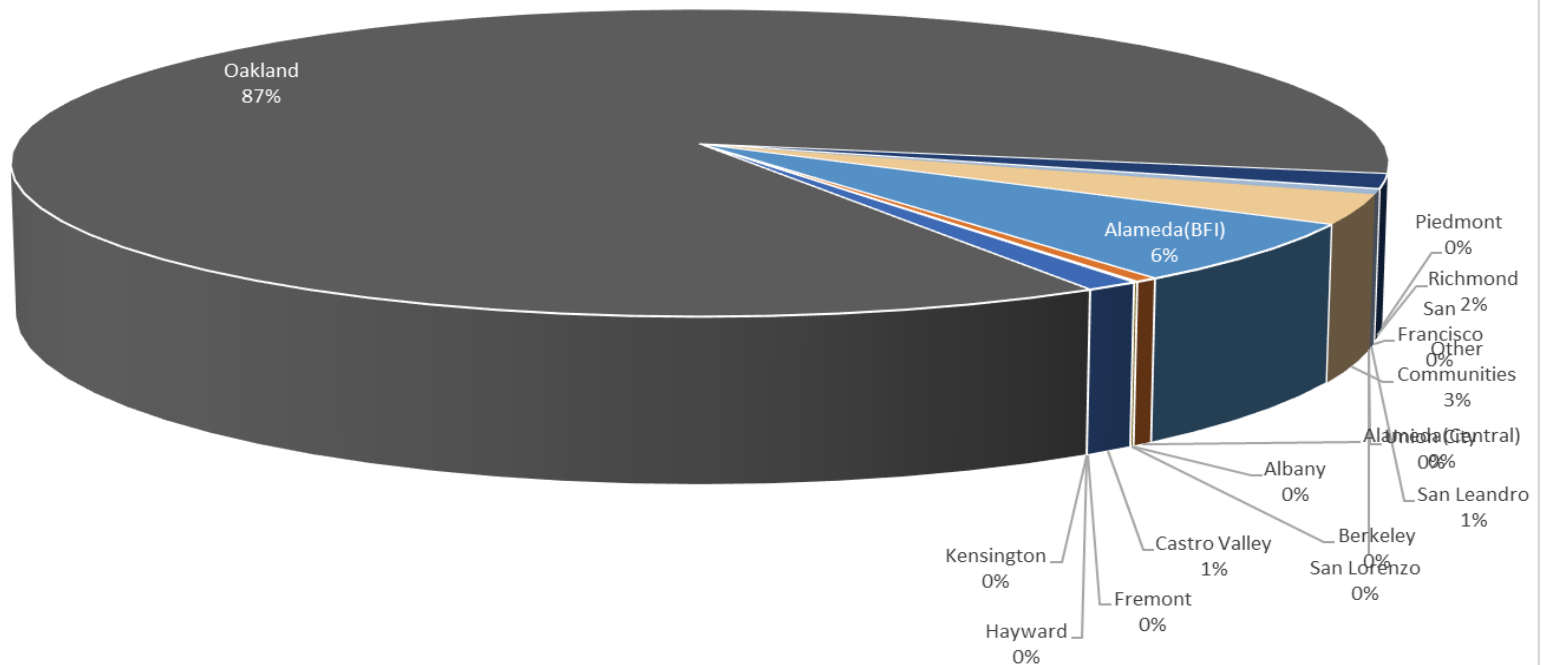
Noise Complaints Summary by Number of Callers

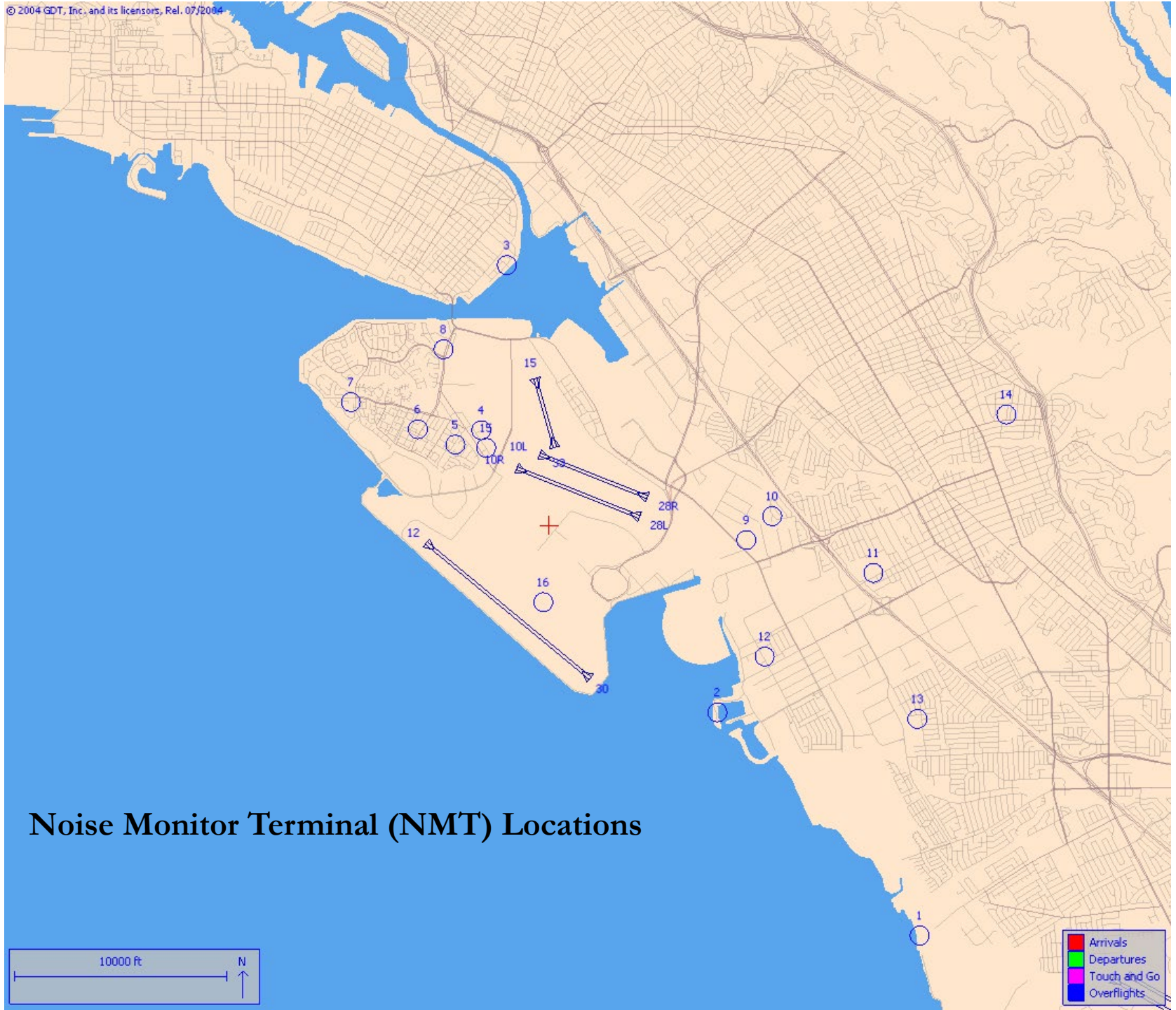


Number of Complaints

March 2022

Noise Complaints Summary by Number of Complaints





Noise Monitor Terminal (NMT) Locations