

NOISE FORUM SUMMARY

North/South Field Working Groups



NOISE ABATEMENT REPORT

FOURTH 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 Fourth Quarter 2023				
	2022Q4		2023Q4	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	93%	7%	93%	7%
Total Airport-wide Corporate Jet Departures	2,375	175	2,111	154
Runway 10R/L Jet Landing Compliance	92%	8%	83%	17%
Total Southeast Plan Corporate Jet Landings	113	10	163	33
North Field VFR Departure Compliance	89%	11%	92%	8%
Total Runways 28R/L & 33 Departures	203	24	228	19
North Field Quiet Hours Compliance	81%	19%	82%	18%
Total North Field Quiet Hours Departures	128	31	206	46
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,150	1	15,637	2
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	3,252	28	3,260	30
Runway 12 Night Departure Compliance	96%	4%	60%	40%
Total Runway 12 Night Turbojet Departures	43	2	32	21
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	4,159	5	3,943	3
100 Degree Radial Turbojet Landing Compliance	98%	2%	98%	2%
Total 100 Degree Radial Turbojet Landings	993	22	1,005	19
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	3	0	14	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

2023Q4
93% Compliance
(2,265 total departures)
(154 non-compliant)

2022Q4
93% Compliance
(2,550 total departures)
(175 non-compliant)

Heading: 325
Elevation: 15

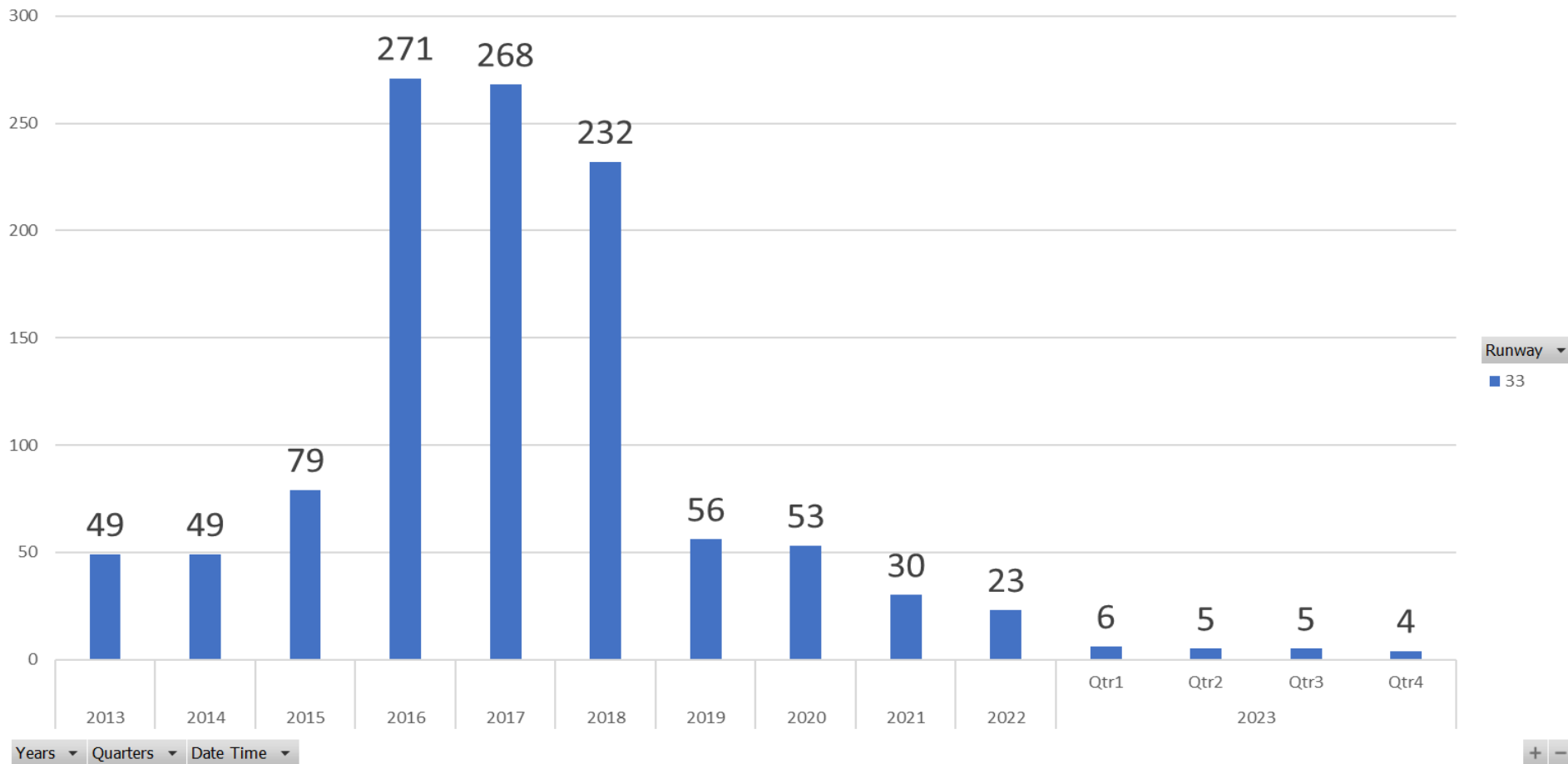
Arrivals
Departures
Touch and Go
Overflights

RUNWAY 33 JET DEPARTURES

FOURTH Quarter 2023

Count of Aircraft Type

Runway 33 Jet Departure Trend Analysis



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

2023Q4

83% Compliance
(196 total landings)
(33 non-compliant)

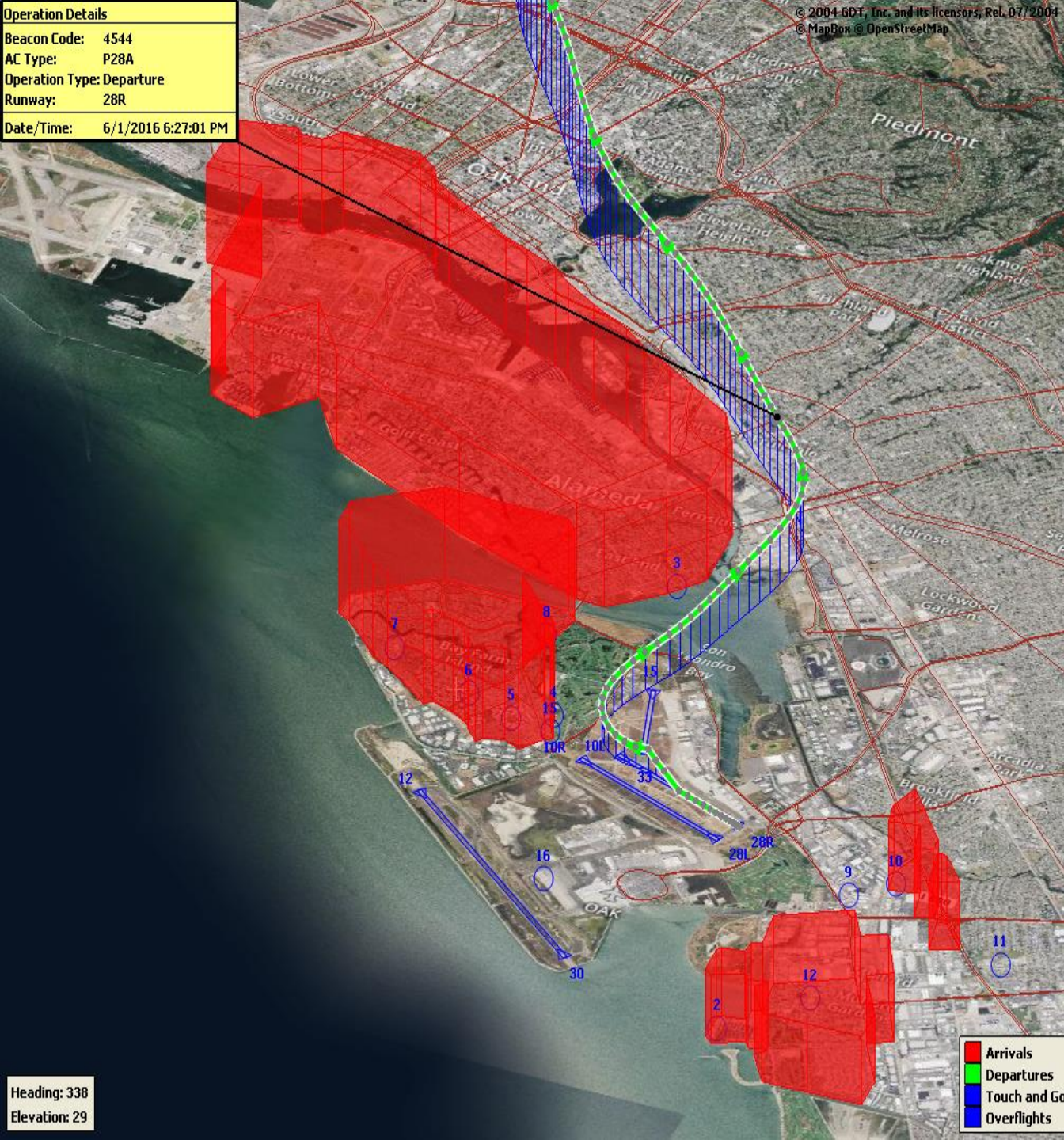
2022Q4

92% Compliance
(123 total landings)
(10 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



VFR Aircraft Departure NAP

2023Q4

92% Compliance
(247 total departures)
(19 non-compliant)

2022Q4

89% Compliance
(227 total departures)
(24 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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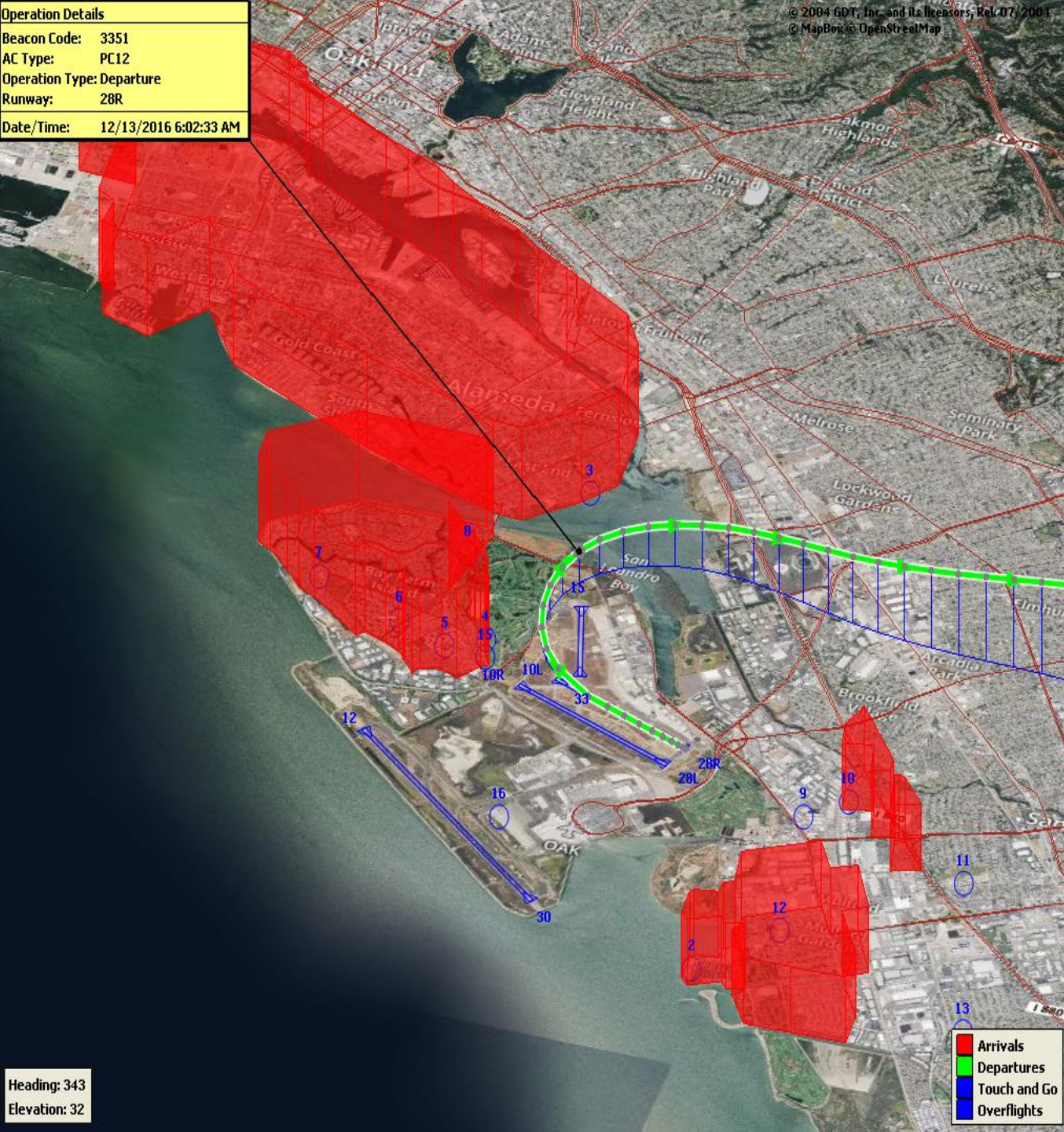
North Field Quiet Hours NAP

2023Q4
82% Compliance
(252 total departures)
(46 non-compliant)

2022Q4
81% Compliance
(159 total departures)
(31 non-compliant)

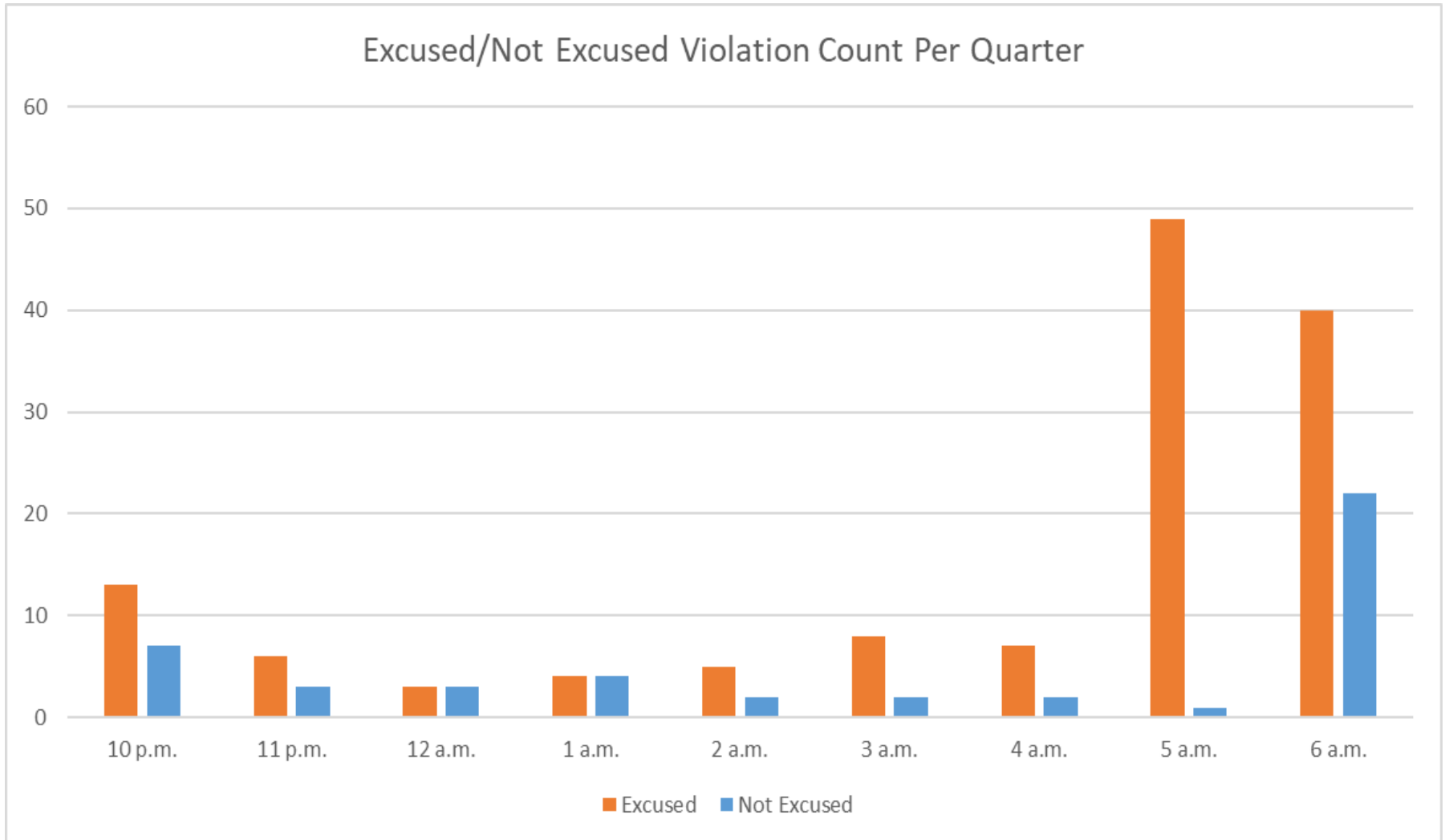
Heading: 343
Elevation: 32

Arrivals
Departures
Touch and Go
Overflights



Quartely North Field Quiet Hours NAP Non-Compliant Per Quarter

Excused/Not Excused Violation Count 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

2023Q4

99% Compliance
(3,290 total departures)
(30 non-compliant)

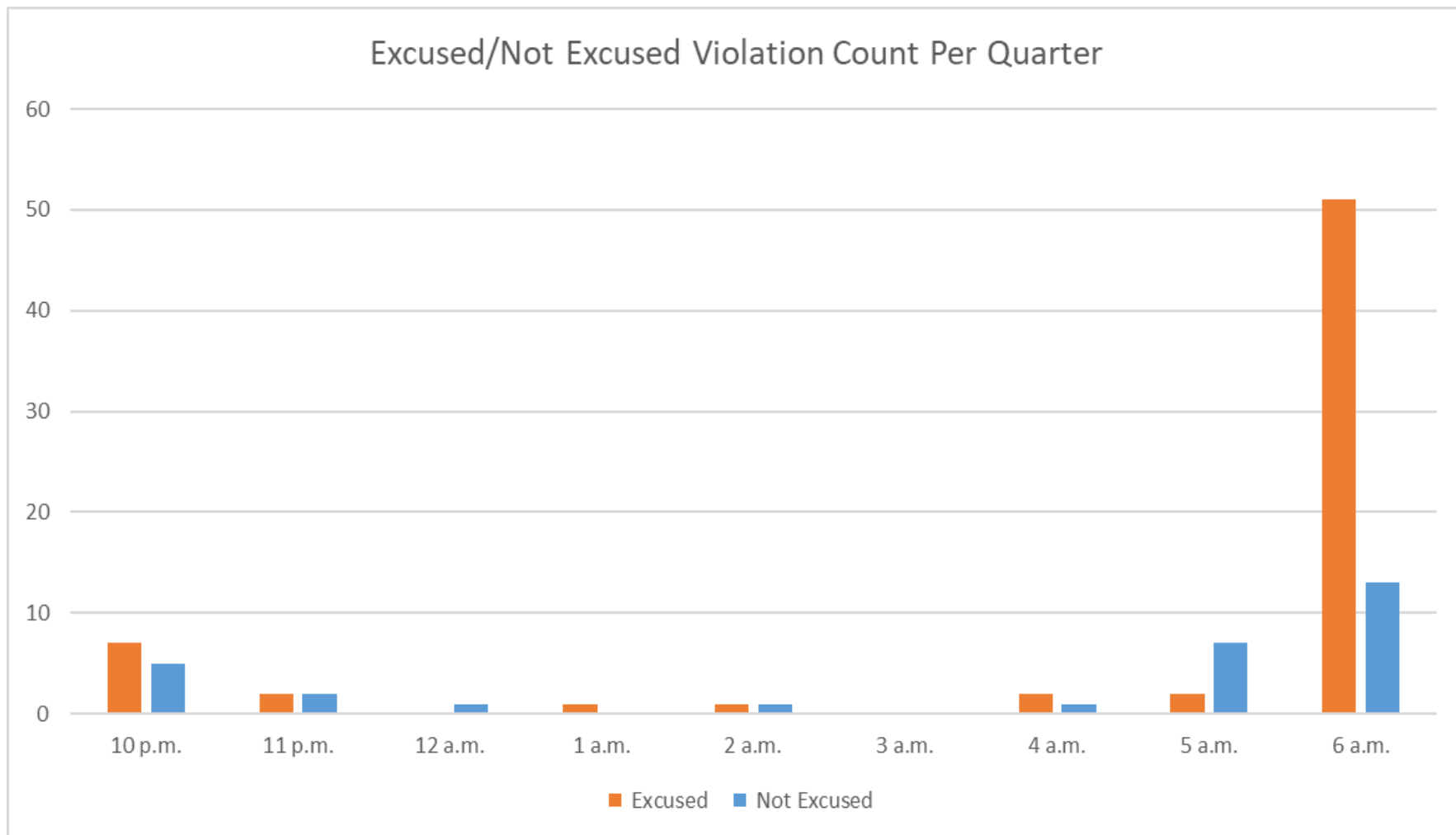
*REBAS Gate non-compliant = 29

2022Q4

99% Compliance
(3,280 total departures)
(28 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

2023Q4

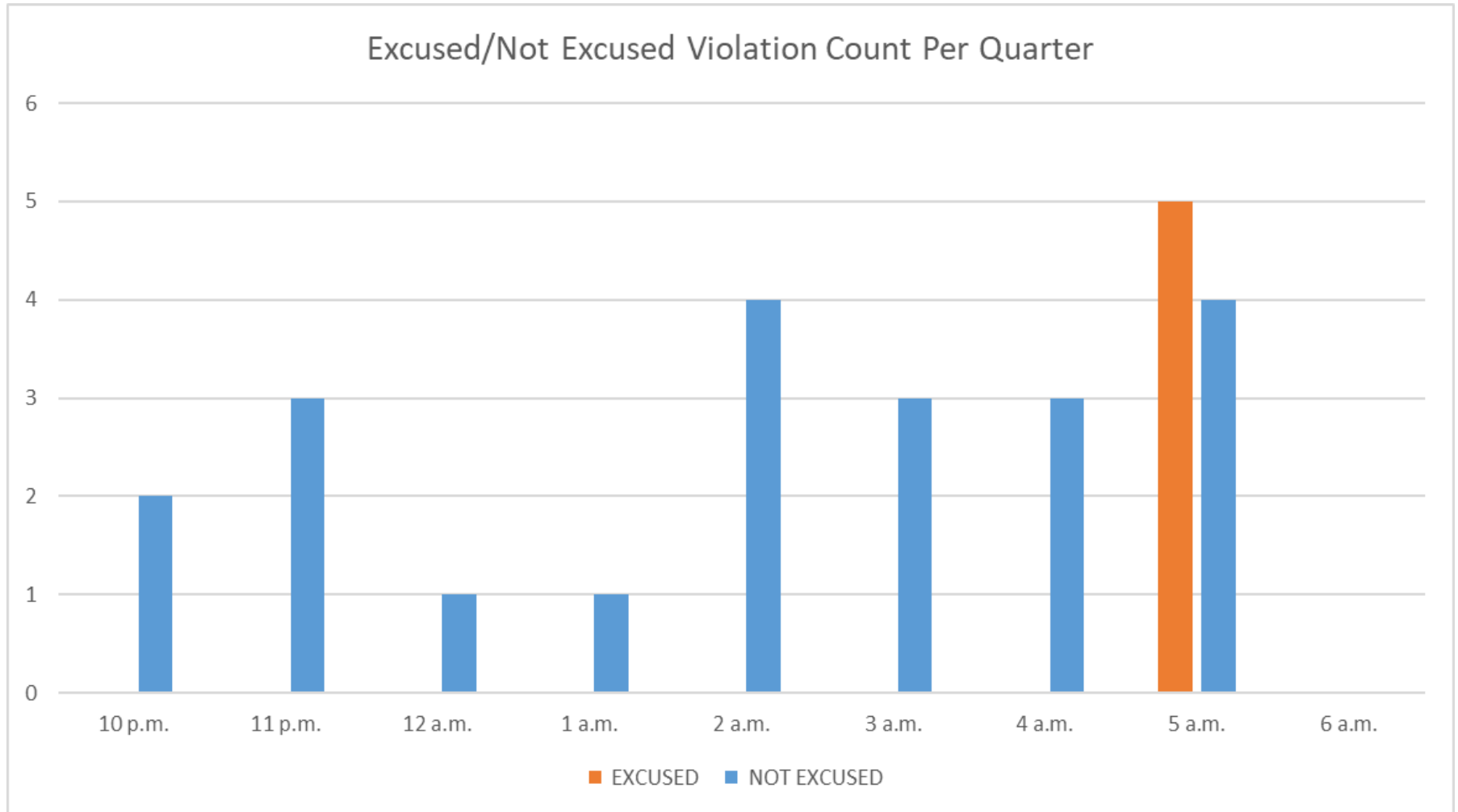
**60% Compliance
(53 total departures)
(21 non-compliant)**

2022Q4

**96% Compliance
(45 total departures)
(2 non-compliant)**

Arrivals
Departures
Touch and Go
Overflights

Quartely 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

2023Q4
100% Compliance
(15,639 total departures)
(2 non-compliant)

2022Q4
100% Compliance
(17,151 total departures)
(1 non-compliant)

Heading: 299
Elevation: 36



Arrivals
Departures
Touch and Go
Overflights

Runway 30 East Turn NAP

2023Q4
100% Compliance
(3,946 total departures)
(3 non-compliant)

*Excused Departures = 29

2022Q4
100% Compliance
(4,164 total departures)
(5 non-compliant)

Operation Details

Beacon Code: 3777

AC Type: B737

Operation Type: Departure

Runway: 30

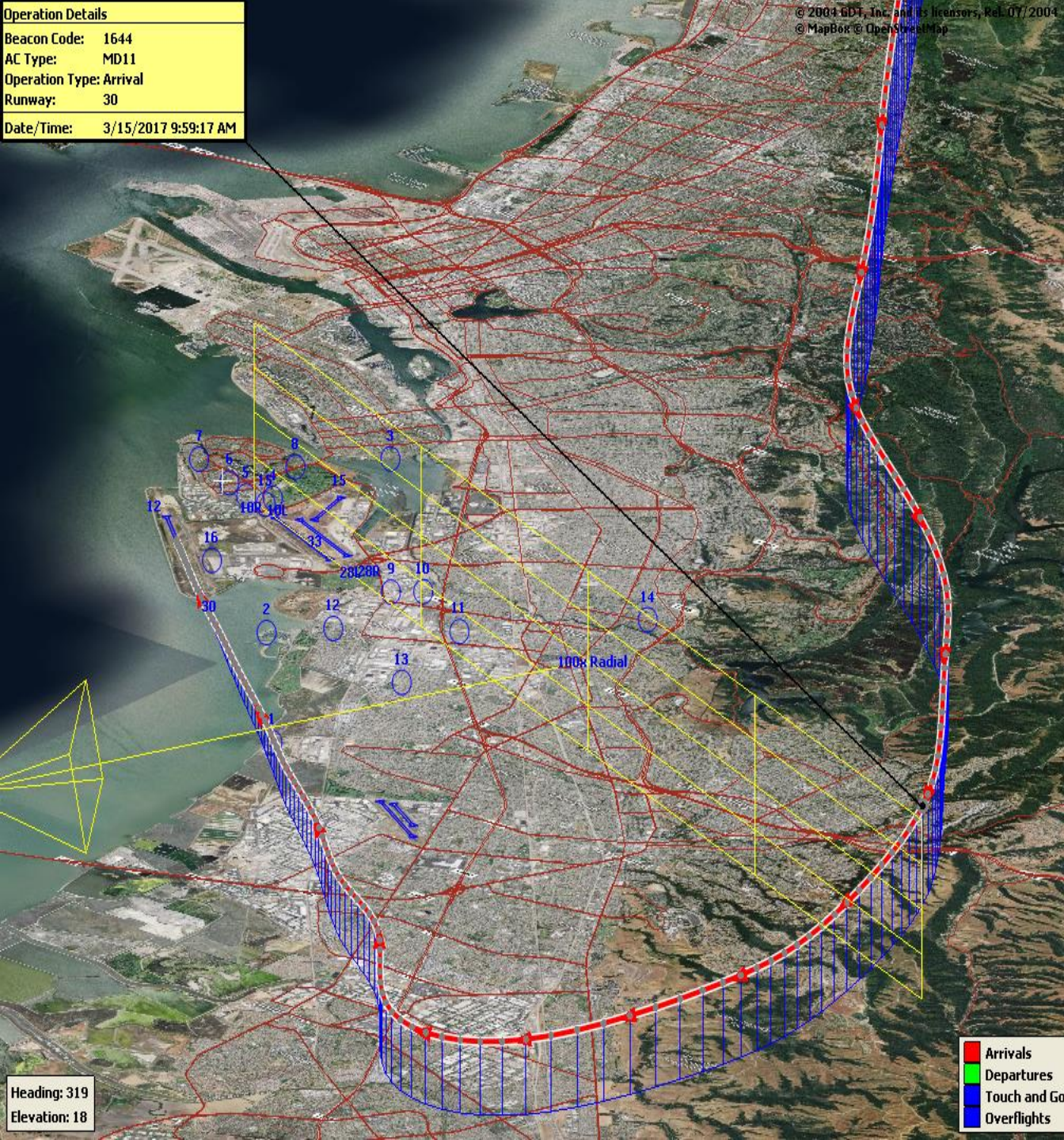
Date/Time: 3/15/2017 9:53:47 AM

Alameda Rwy 30



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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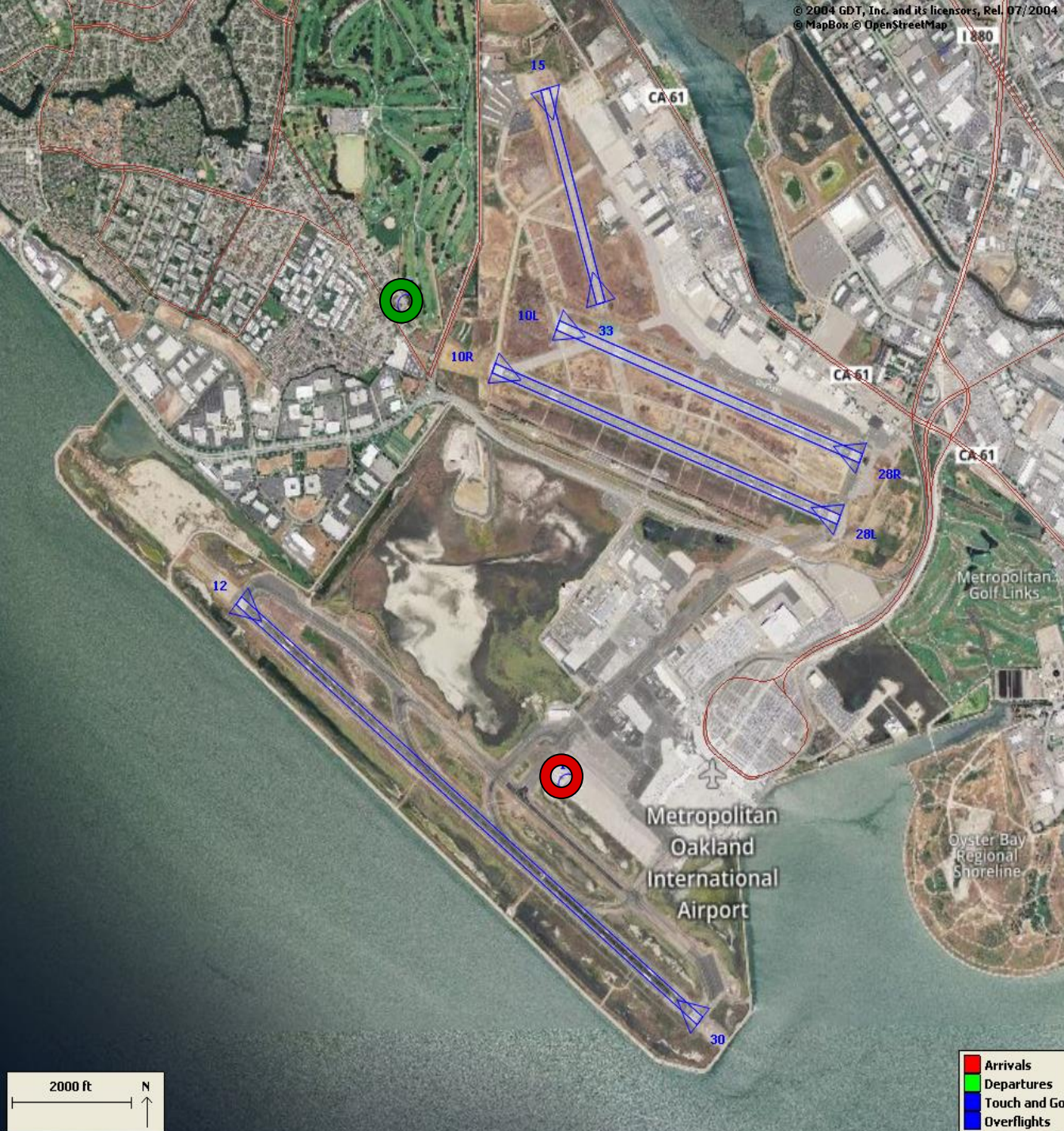
100 Degree Radial At 3,000 ft. NAP

2023Q4
98% Compliance
(1,024 total landings)
(19 non-compliant)

2022Q4
98% Compliance
(1,015 total landings)
(22 non-compliant)

- Arrivals
- Departures
- Touch and Go
- Overflights

Heading: 319
Elevation: 18



Engine Run-up NAP

2023Q4

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

2022Q4

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

*Only above idle-power run-ups
recorded.

**Compliance Monitoring Quarterly Summary Comparison
Fourth Quarter 2023 - Quarter-to-Quarter**

	2023Q3		2023Q4	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	94%	6%	93%	7%
Total Airport-wide Corporate Jet Departures	2,009	128	2,111	154
Runway 10R/L Jet Landing Compliance	96%	4%	83%	17%
Total Southeast Plan Corporate Jet Landings	26	1	163	33
North Field VFR Departure Compliance	95%	5%	92%	8%
Total Runways 28R/L & 33 Departures	242	14	228	19
North Field Quiet Hours Compliance	87%	13%	82%	18%
Total North Field Quiet Hours Departures	184	28	206	46
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	16,391	2	15,637	2
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	3,346	29	3,260	30
Runway 12 Night Departure Compliance	100%	0%	60%	40%
Total Runway 12 Night Turbojet Departures	15	0	32	21
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	4,166	3	3,943	3
100 Degree Radial Turbojet Landing Compliance	99%	1%	98%	2%
Total 100 Degree Radial Turbojet Landings	932	14	1,005	19
Engine Runup Program Compliance	82%	18%	100%	0%
Total Evening and Nighttime Engine Runups	11	2	14	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 = 252

Fourth 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	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	1
2	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
3	51	5	0.1	0.9%	0	0.0	0.0%	0	0.0	0.0%	56
4	68	55	0.6	9.7%	51	0.6	9.0%	60	0.7	10.6%	234
5	69	21	0.2	3.7%	23	0.3	4.1%	76	0.8	13.4%	189
6	53	13	0.1	2.3%	32	0.4	5.6%	57	0.6	10.1%	155
7	19	26	0.3	4.6%	55	0.6	9.7%	12	0.1	2.1%	112
8	61	31	0.3	5.5%	2	0.0	0.4%	0	0.0	0.0%	94
9	16	15	0.2	2.6%	5	0.1	0.9%	0	0.0	0.0%	36
10	109	35	0.4	6.2%	1	0.0	0.2%	0	0.0	0.0%	145
11	8	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	10
12	16	5	0.1	0.9%	2	0.0	0.4%	0	0.0	0.0%	23
13	7	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	9
14	41	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	43
All NMTs	519	212	2	0	171	2	0	205	2	0	1107

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 223

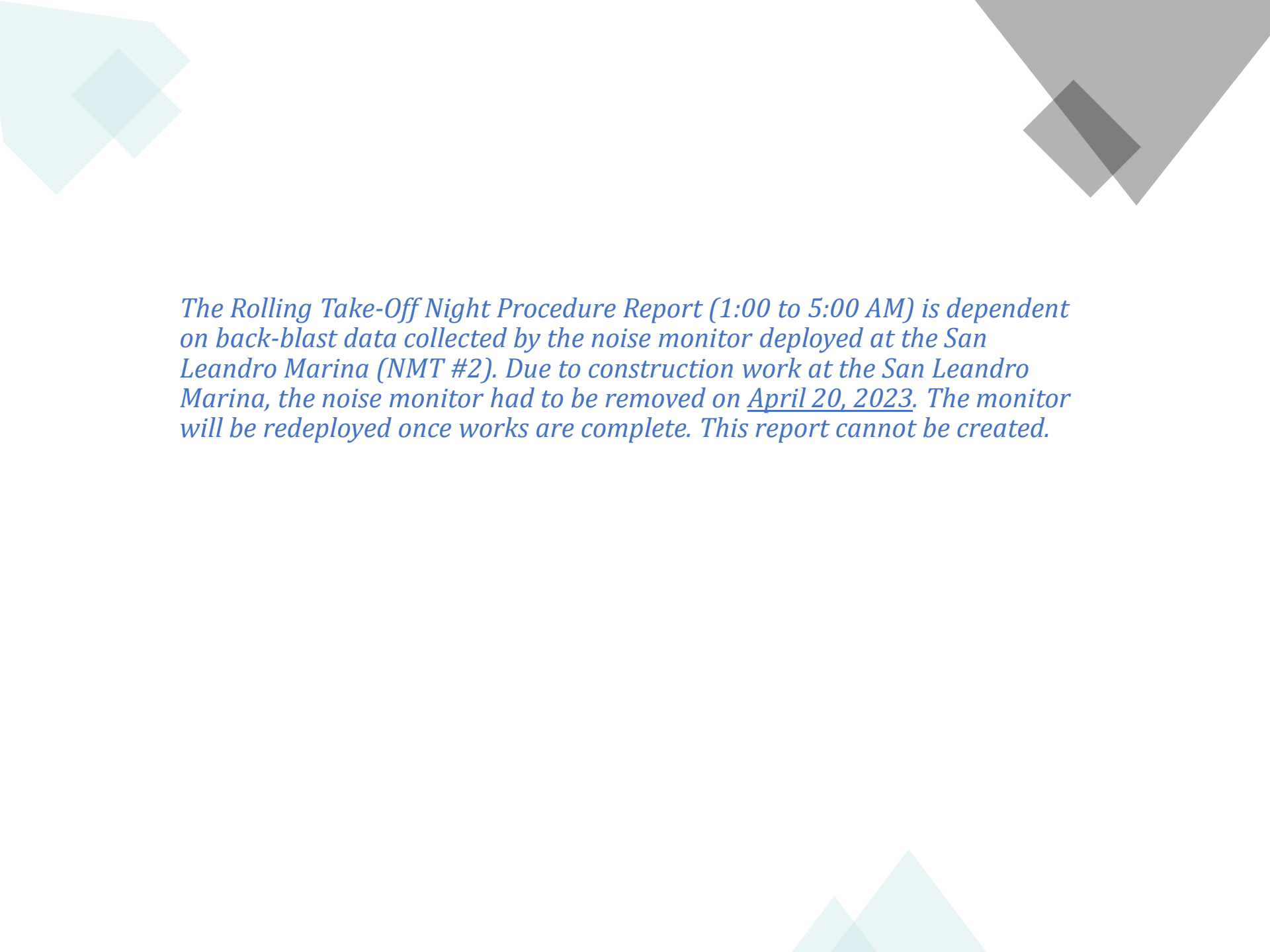
Fourth Quarter 2023 (10:00 p.m. to 7:00 a.m.)

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	51	5	0.1	2.1%	0	0.0	0.0%	0	0.0	0.0%	56
4	68	55	0.6	23.0%	51	0.6	21.3%	60	0.7	25.1%	234
5	69	21	0.2	8.8%	23	0.3	9.6%	76	0.8	31.8%	189
6	53	13	0.1	5.4%	32	0.4	13.4%	57	0.6	23.8%	155
7	19	26	0.3	10.9%	55	0.6	23.0%	12	0.1	5.0%	112
8	61	31	0.3	13.0%	2	0.0	0.8%	0	0.0	0.0%	94
Total	321	151	1.7		163	1.8		205	2.3		840

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 29

Fourth 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	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
9	16	15	0.2	4.6%	5	0.1	1.5%	0	0.0	0.0%	36
10	109	35	0.4	10.7%	1	0.0	0.3%	0	0.0	0.0%	145
11	8	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	10
12	16	5	0.1	1.5%	2	0.0	0.6%	0	0.0	0.0%	23
13	7	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	9
14	41	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	43
Total	197	61	0.7		8	0.1		0	0.0		266



The Rolling Take-Off Night Procedure Report (1:00 to 5:00 AM) is dependent on back-blast data collected by the noise monitor deployed at the San Leandro Marina (NMT #2). Due to construction work at the San Leandro Marina, the noise monitor had to be removed on April 20, 2023. The monitor will be redeployed once works are complete. This report cannot be created.

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Fourth 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	
A 306	67	21	67	77	25	
Fourth Quarter 2022 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	221	74	77	65	75	18
DC10/MD10	1	0	-	-	-	-
MD11	252	84	188	67	76	19
A 306	36	12	19	66	75	15
B757	168	56	76	66	75	17
B77L	115	38	29	65	73	14
Difference [A-B]						
DC10/MD10		-87	-32	-69	-78	-22
MD11		52	175	-3	-3	-5
A 306		-55	-2	-1	-2	-10

(a) For the current calendar quarter reported, ANOM S 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: ANOM S (Airport Noise and Operations Monitoring System)

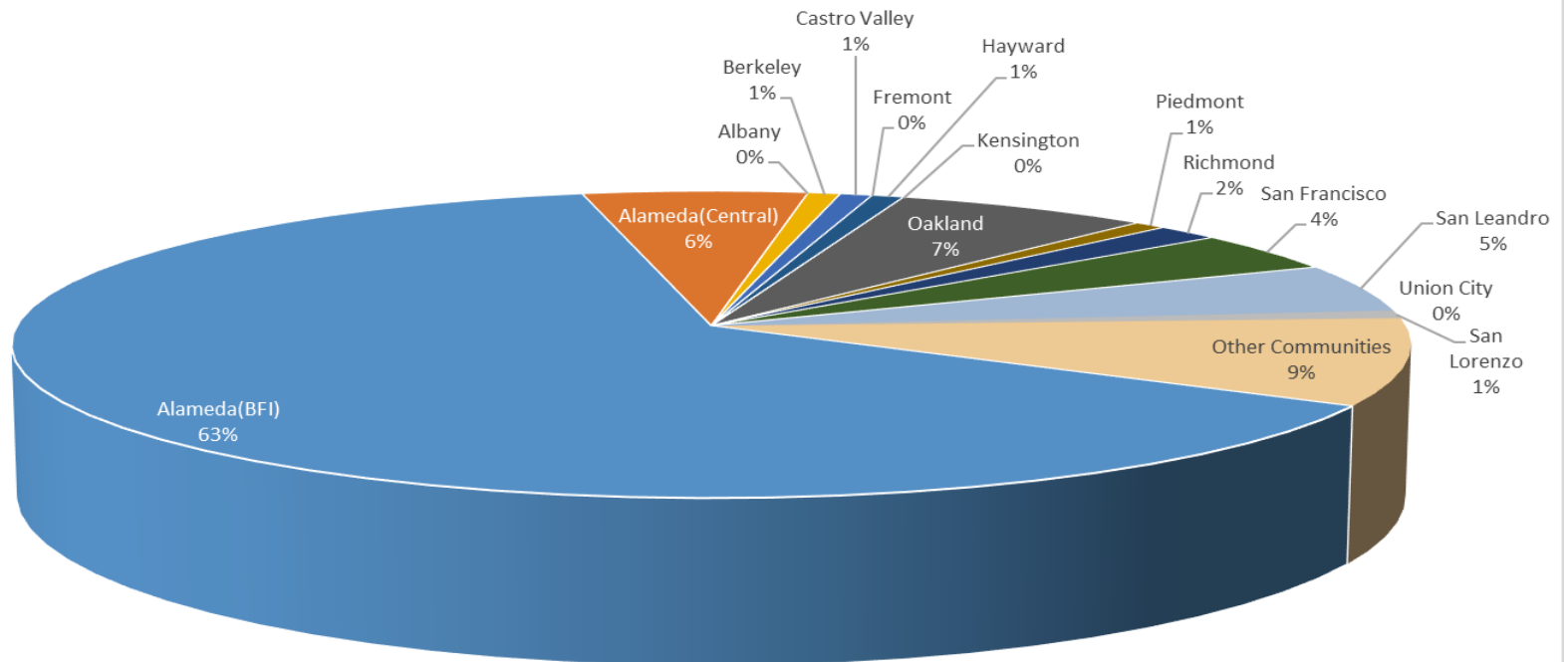
**Oakland International Airport
Noise Complaint Summary
October 2023**

Community	Callers	Complaints
Alameda(BFI)	76	1846
Alameda(Central)	7	25
Albany	0	0
Berkeley	1	1
Castro Valley	1	31
Fremont	0	0
Hayw ard	1	2
Kensington	0	0
Oakland	8	2236
Piedmont	1	4
Richmond	2	132
San Francisco	5	6
San Leandro	6	6
Union City	0	0
San Lorenzo	1	1
Other Communities	11	152
Total	120	4442
Complaints by Type		
E-mail	2378	
View point App	2064	
Complaints by Time of Day		
Day (0700 - 1900)	947	
Evening (1900 - 2200)	446	
Night (2200 - 0700)	3049	
Complaints by Type of Operation		
Arrivals	2219	
Departures	2008	
Over-flights	138	
Touch & Go	77	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	347	
Helicopter	102	
Jet	3563	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	37	
Propeller	209	
Turbo-prop	184	

Number of Callers

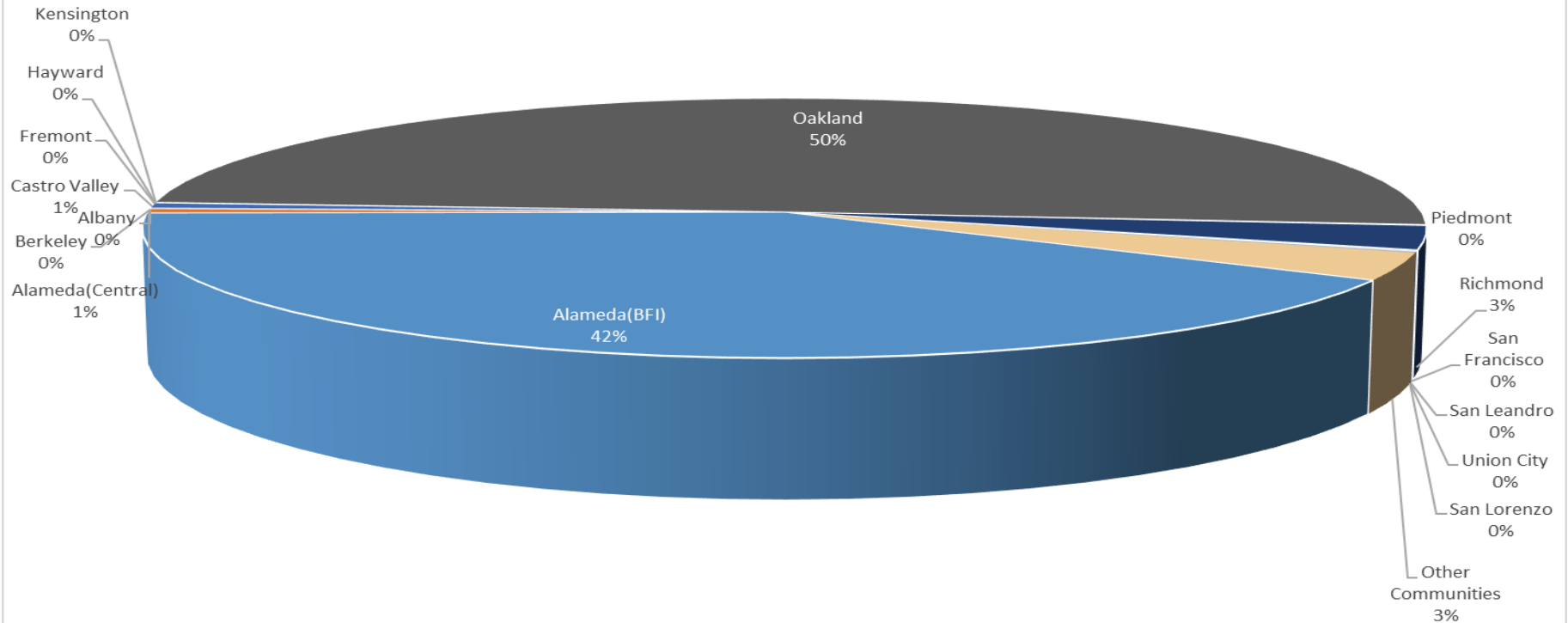
October 2023

Noise Complaints Summary by Number of Callers



Number of Complaints October 2023

Noise Complaints Summary by Number of Complaints



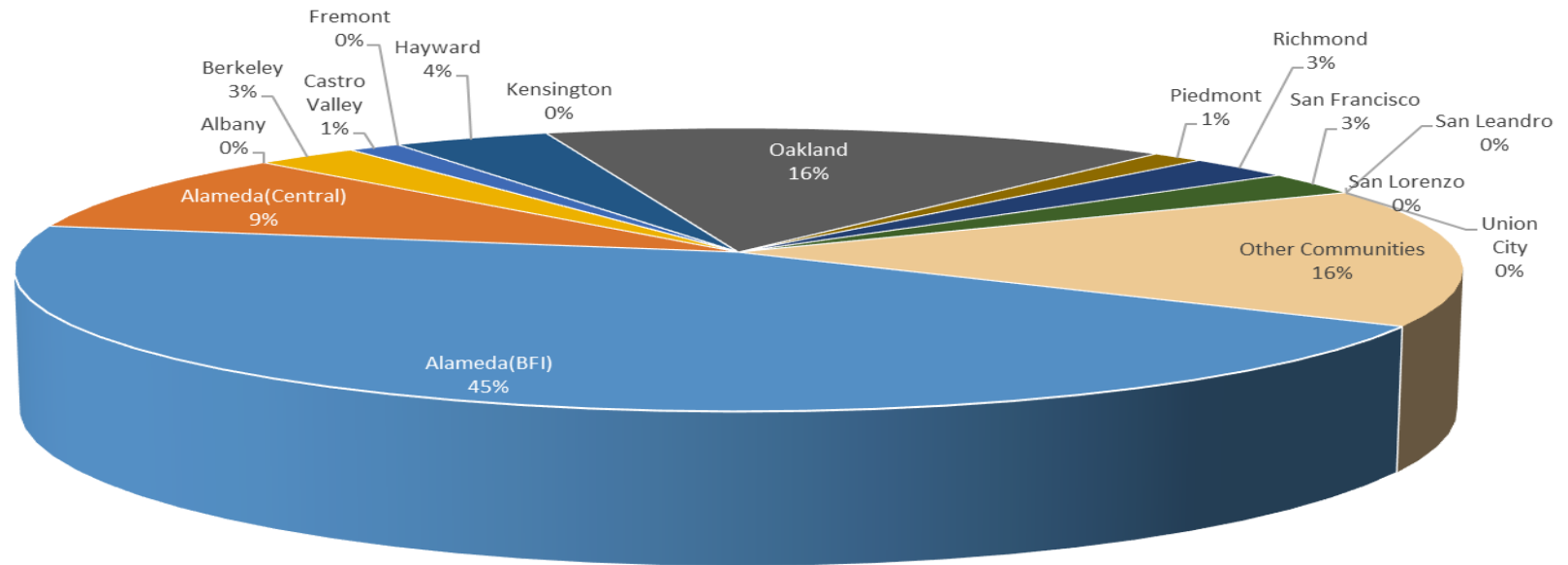
**Oakland International Airport
Noise Complaint Summary
November 2023**

Community	Callers	Complaints
Alameda(BFI)	34	1350
Alameda(Central)	7	38
Albany	0	0
Berkeley	2	11
Castro Valley	1	24
Fremont	0	0
Hayw ard	3	5
Kensington	0	0
Oakland	12	2763
Piedmont	1	10
Richmond	2	163
San Francisco	2	3
San Leandro	0	0
Union City	0	0
San Lorenzo	0	0
Other Communities	12	140
Total	76	4507
Complaints by Type		
E-mail	2831	
View point App	1676	
Complaints by Time of Day		
Day (0700 - 1900)	1110	
Evening (1900 - 2200)	566	
Night (2200 - 0700)	2831	
Complaints by Type of Operation		
Arrivals	2557	
Departures	1811	
Over-flights	111	
Touch & Go	28	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	203	
Helicopter	160	
Jet	3928	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	18	
Propeller	87	
Turbo-prop	111	

Number of Callers

November 2023

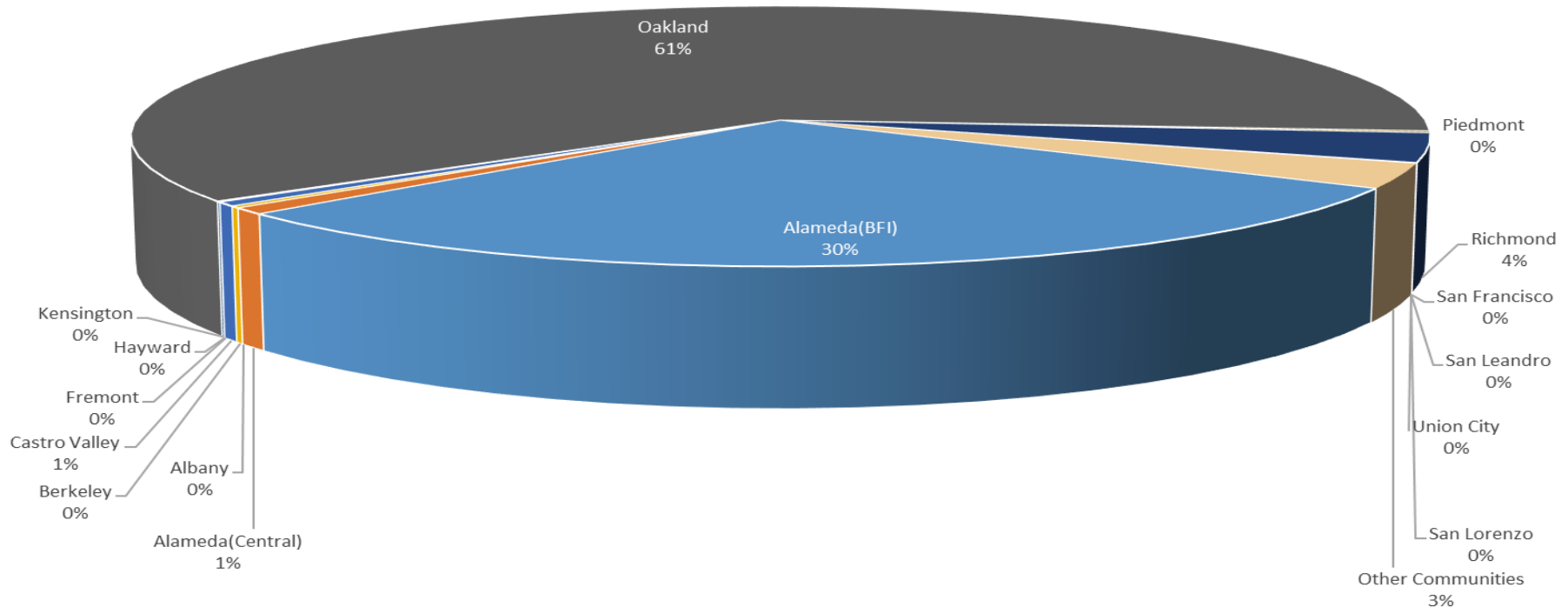
Noise Complaints Summary by Number of Callers



Number of Complaints

November 2023

Noise Complaints Summary by Number of Complaints



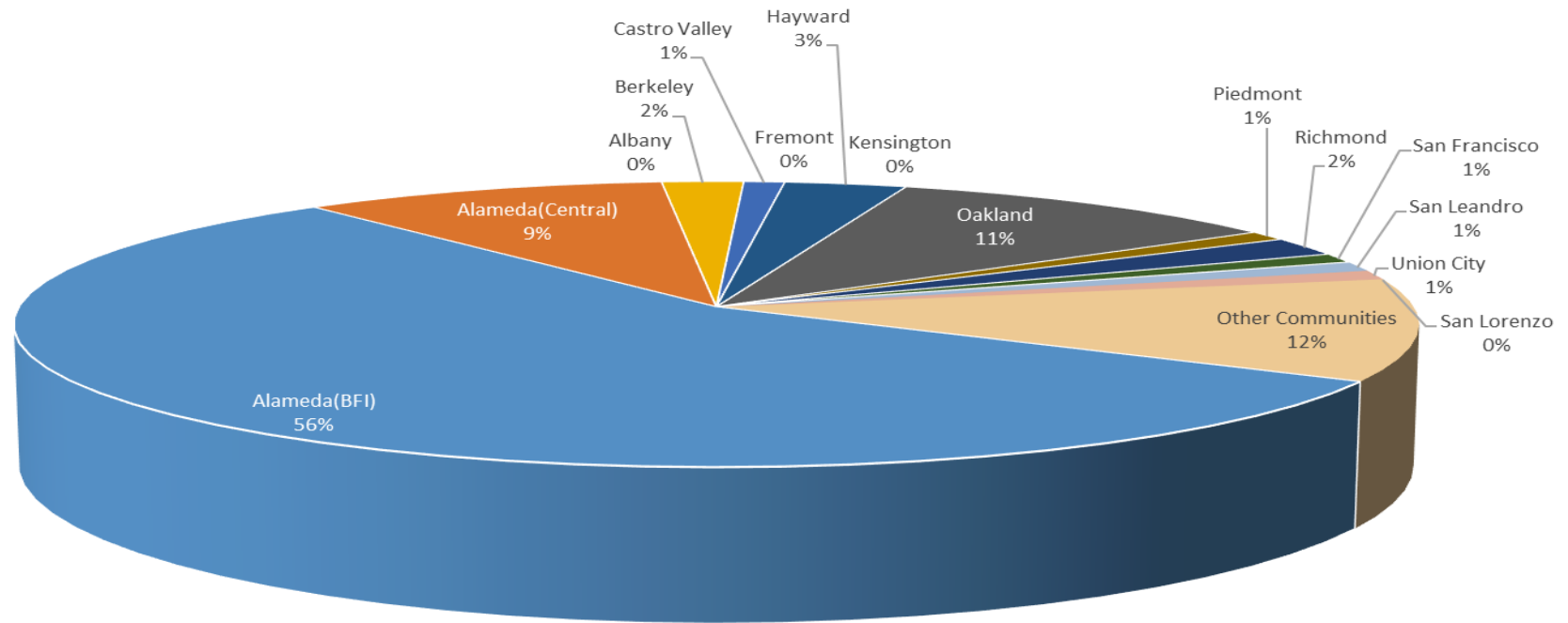
**Oakland International Airport
Noise Complaint Summary
December 2023**

Community	Callers	Complaints
Alameda(BFI)	53	1223
Alameda(Central)	9	63
Albany	0	0
Berkeley	2	124
Castro Valley	1	62
Fremont	0	0
Hayw ard	3	5
Kensington	0	0
Oakland	10	2511
Piedmont	1	16
Richmond	2	237
San Francisco	1	2
San Leandro	1	1
Union City	1	1
San Lorenzo	0	0
Other Communities	11	41
Total	95	4286
Complaints by Type		
E-mail	2692	
View point App	1593	
Complaints by Time of Day		
Day (0700 - 1900)	755	
Evening (1900 - 2200)	415	
Night (2200 - 0700)	3116	
Complaints by Type of Operation		
Arrivals	2580	
Departures	1641	
Over-flights	30	
Touch & Go	35	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	189	
Helicopter	36	
Jet	3900	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	5	
Propeller	78	
Turbo-prop	78	

Number of Callers

December 2023

Noise Complaints Summary by Number of Callers



Number of Complaints

December 2023

Noise Complaints Summary by Number of Complaints

