

NOISE FORUM SUMMARY

North/South Field Working Groups



NOISE ABATEMENT REPORT

SECOND 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 Second Quarter 2022				
	2021Q2		2022Q2	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	95%	5%	93%	7%
Total Airport-wide Corporate Jet Departures	2,610	146	2,442	172
Runway 10R/L Jet Landing Compliance	100%	0%	86%	14%
Total Southeast Plan Corporate Jet Landings	2	0	30	5
North Field VFR Departure Compliance	96%	4%	86%	14%
Total Runways 28R/L & 33 Departures	278	11	258	41
North Field Quiet Hours Compliance	89%	11%	72%	28%
Total North Field Quiet Hours Departures	164	20	114	44
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	14,590	0	17,737	3
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	2,676	21	3,422	32
Runway 12 Night Departure Compliance	0%	0%	98%	2%
Total Runway 12 Night Turbojet Departures	0	0	49	1
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	4,449	17	4,109	5
100 Degree Radial Turbojet Landing Compliance	98%	2%	99%	1%
Total 100 Degree Radial Turbojet Landings	723	12	1,138	12
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	4	0	6	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

© 2004 GDT, Inc. and its licensors, Rel. 07/2004
© MapBox © OpenStreetMap

Runway 28R/L Jet Departure NAP

2022Q2
93% Compliance
(2,614 total departures)
(172 non-compliant)

2021Q2
95% Compliance
(2,756 total departures)
(146 non-compliant)

Heading: 325
Elevation: 15

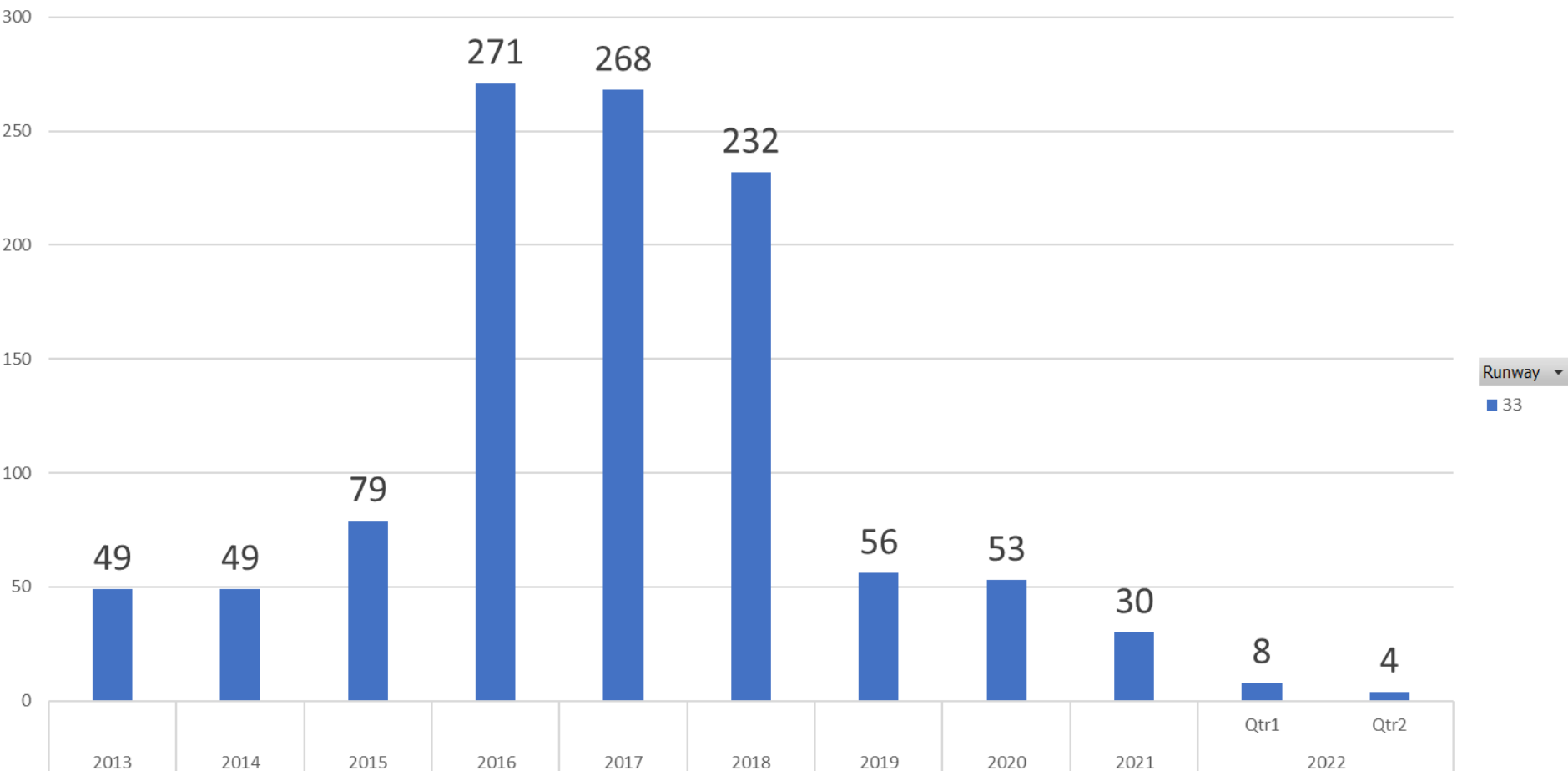
Arrivals
Departures
Touch and Go
Overflights

RUNWAY 33 JET DEPARTURES

SECOND 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

© 2004 CDL, Inc. and its licensors, Rel. 07/2004
© MapBox © OpenStreetMap

Runway 10R/L Jet Landing NAP

2022Q2

86% Compliance
(35 total landings)
(5 non-compliant)

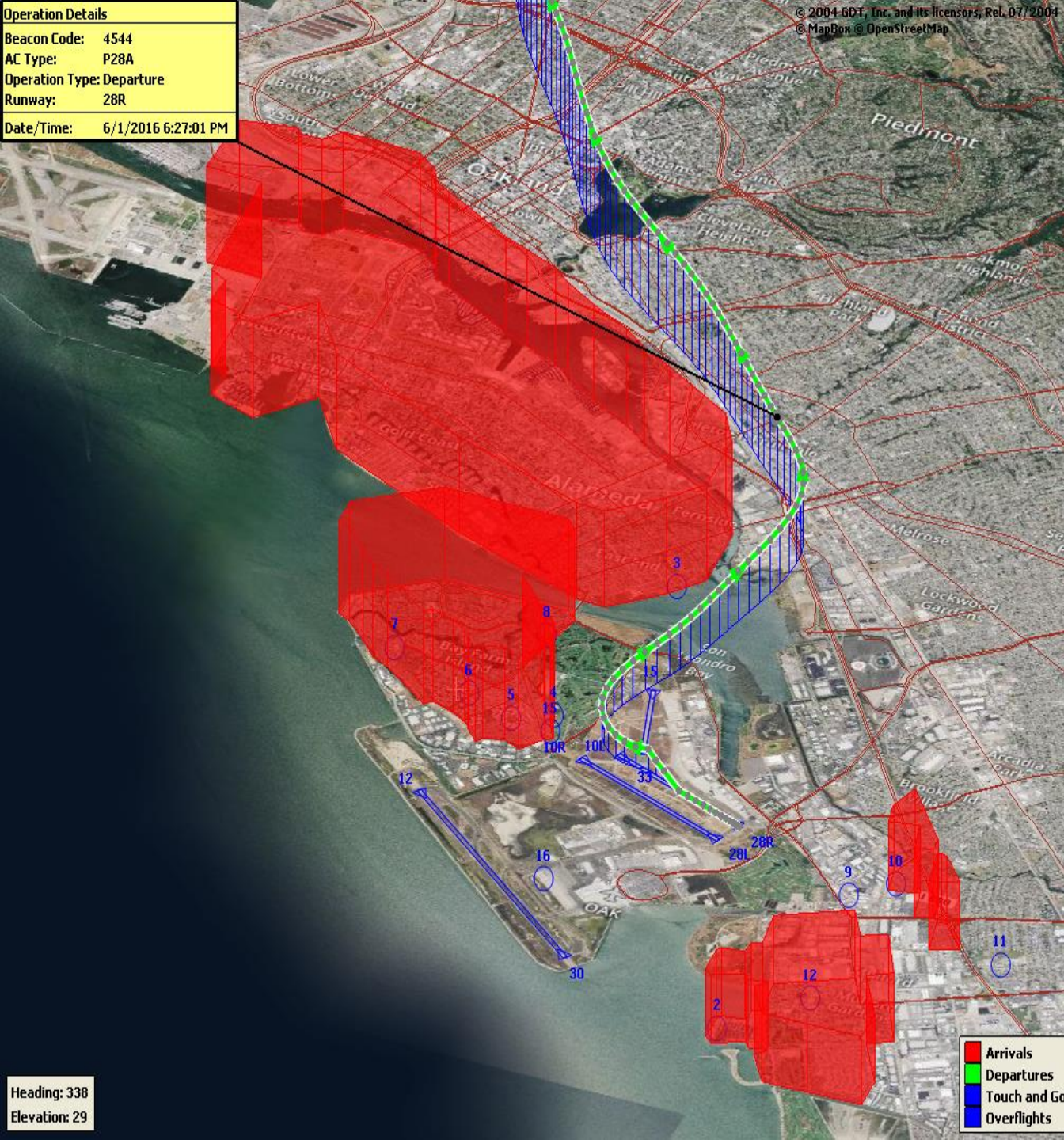
2021Q2

100% Compliance
(2 total landings)
(0 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

2022Q2
86% Compliance
(299 total departures)
(41 non-compliant)

2021Q2
96% Compliance
(289 total departures)
(11 non-compliant)

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

© 2004 GDT, Inc. and its licensors, Rel. 07/2004
© MapBox © OpenStreetMap

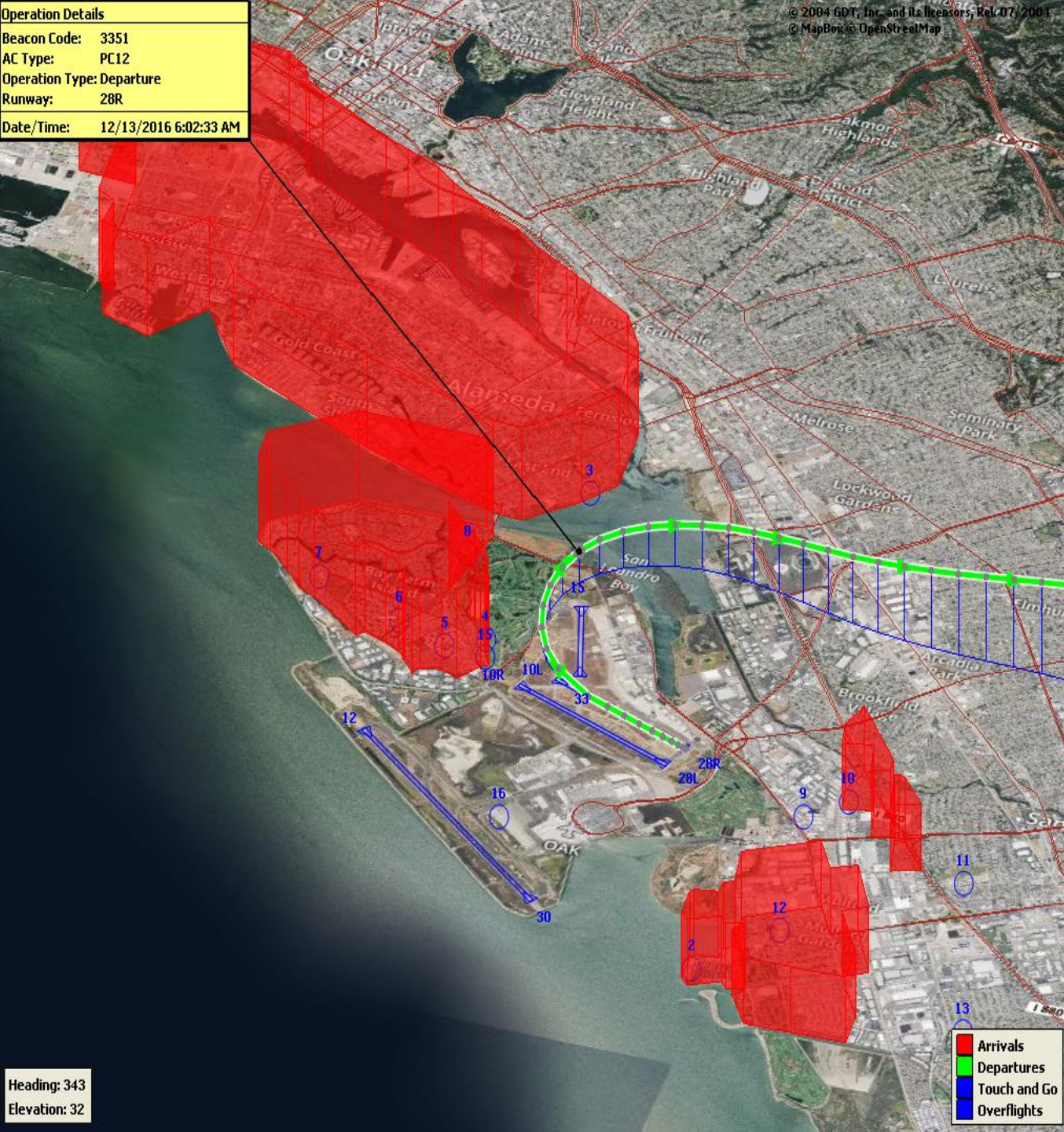
North Field Quiet Hours NAP

2022Q2
72% Compliance
(158 total departures)
(44 non-compliant)

2021Q2
89% Compliance
(184 total departures)
(20 non-compliant)

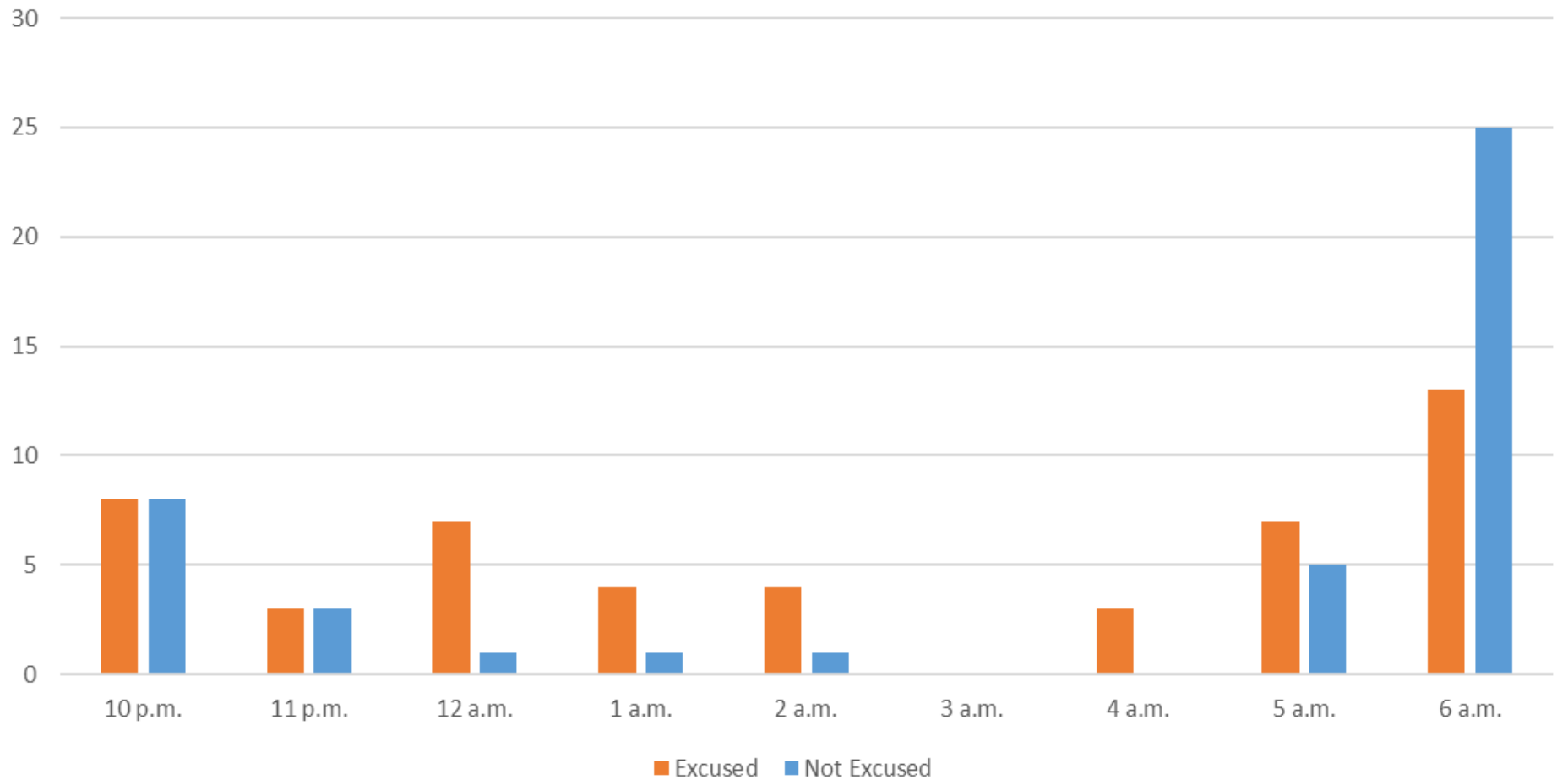
Heading: 343
Elevation: 32

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

2022Q2

99% Compliance
(3,454 total departures)
(32 non-compliant)

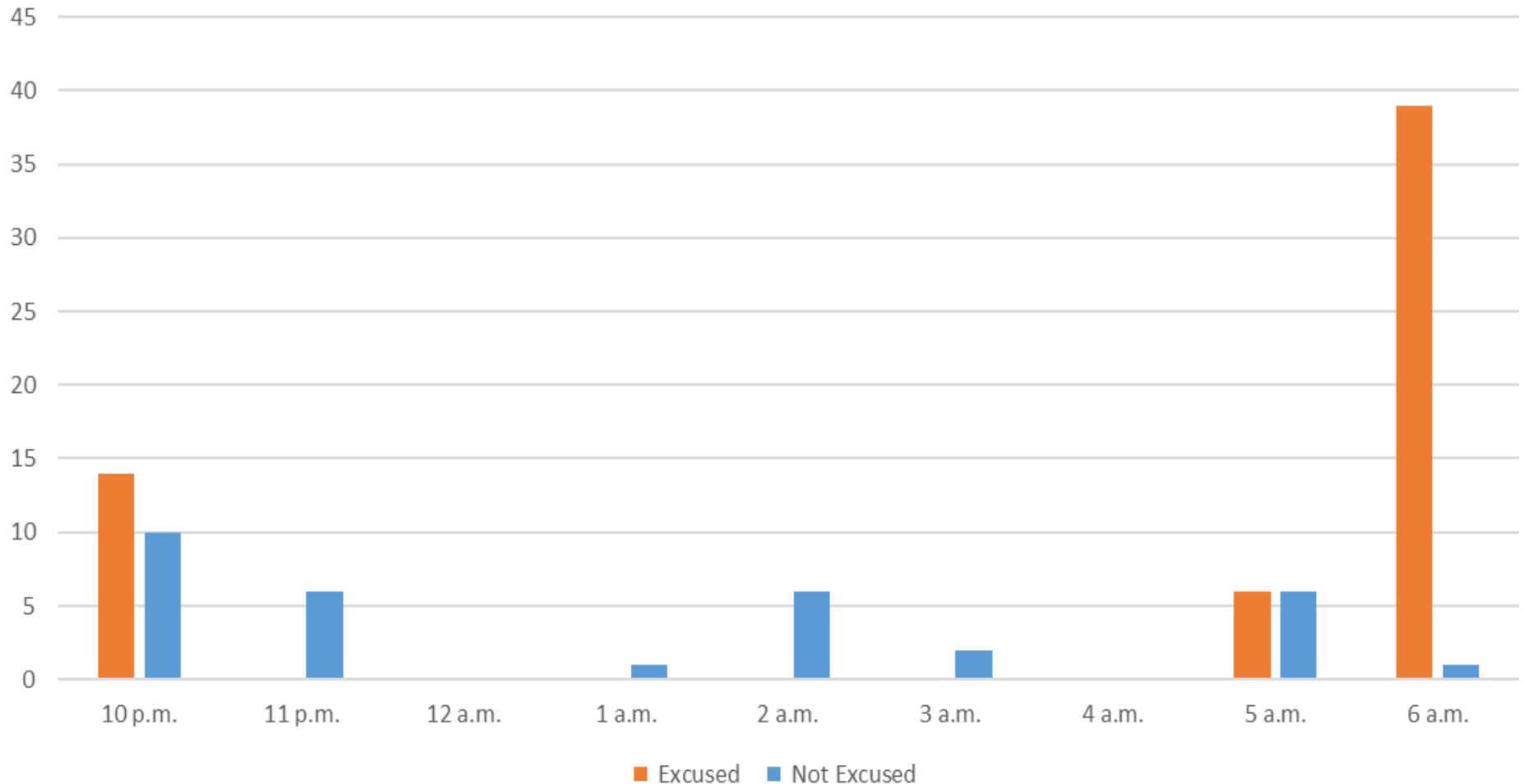
*REBAS Gate non-compliant = 30

2021Q2

99% Compliance
(2,697 total departures)
(21 non-compliant)

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

2022Q2

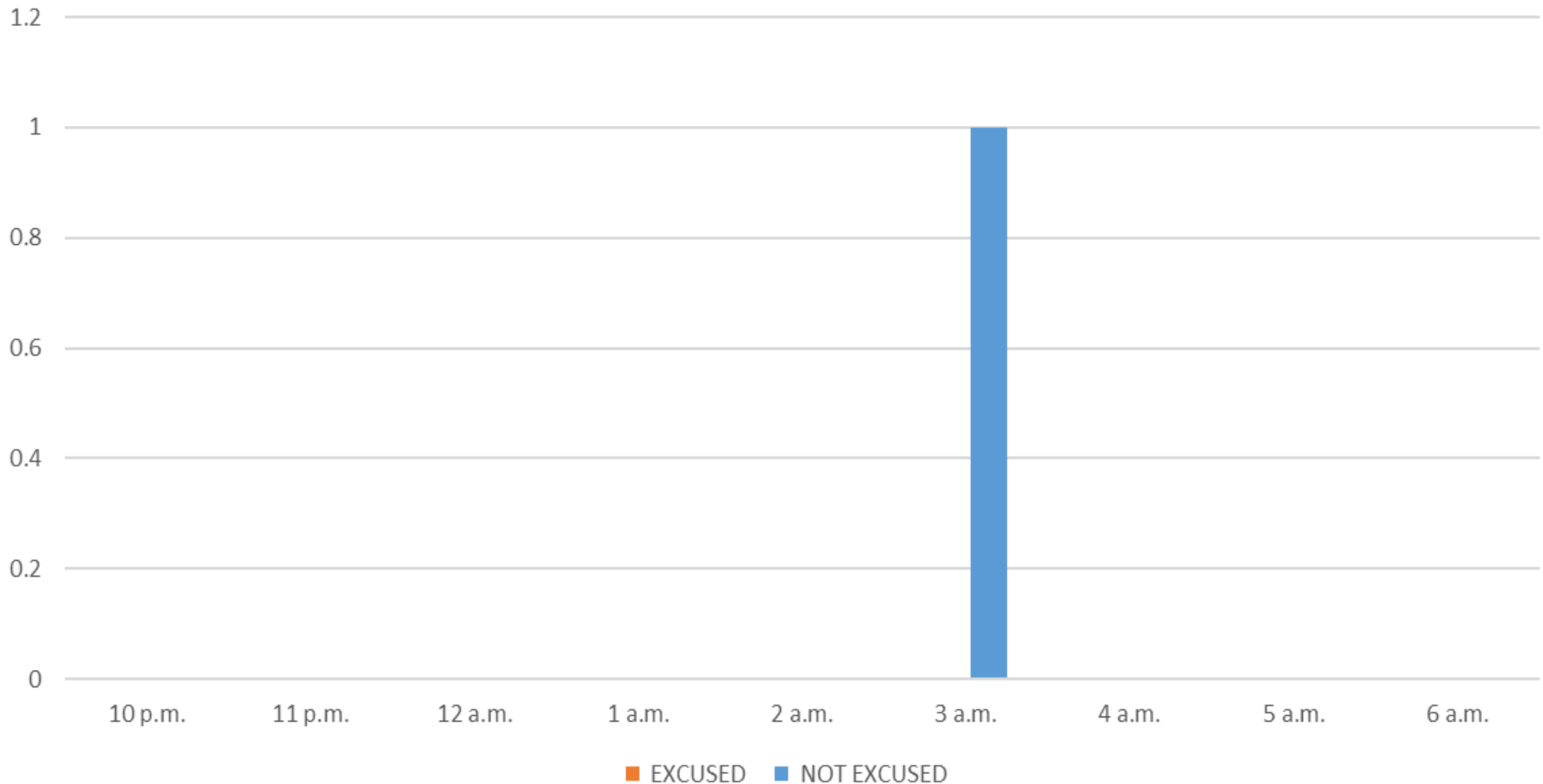
98% Compliance
(50 total departures)
(1 non-compliant)

2021Q2

N/A Compliance
(0 total departures)
(0 non-compliant)

Runway 12 Night Departure Non-Compliant Count by Hour

Excused/Not Excused Violation 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

© 2004 GDT, Inc. and its licensors, Rel. 07/2004
© MapBox © OpenStreetMap

Runway 30 Bay Farm Right Turn NAP

2022Q2
100% Compliance
(17,740 total departures)
(3 non-compliant)

2021Q2
100% Compliance
(14,590 total departures)
(0 non-compliant)

Heading: 299
Elevation: 36



Arrivals
Departures
Touch and Go
Overflights

Runway 30 East Turn NAP

2022Q2
100% Compliance
(4,114 total departures)
(5 non-compliant)

*Excused Departures = 10

2021Q2
100% Compliance
(4,466 total departures)
(17 non-compliant)

Operation Details

Beacon Code: 3777

AC Type: B737

Operation Type: Departure

Runway: 30

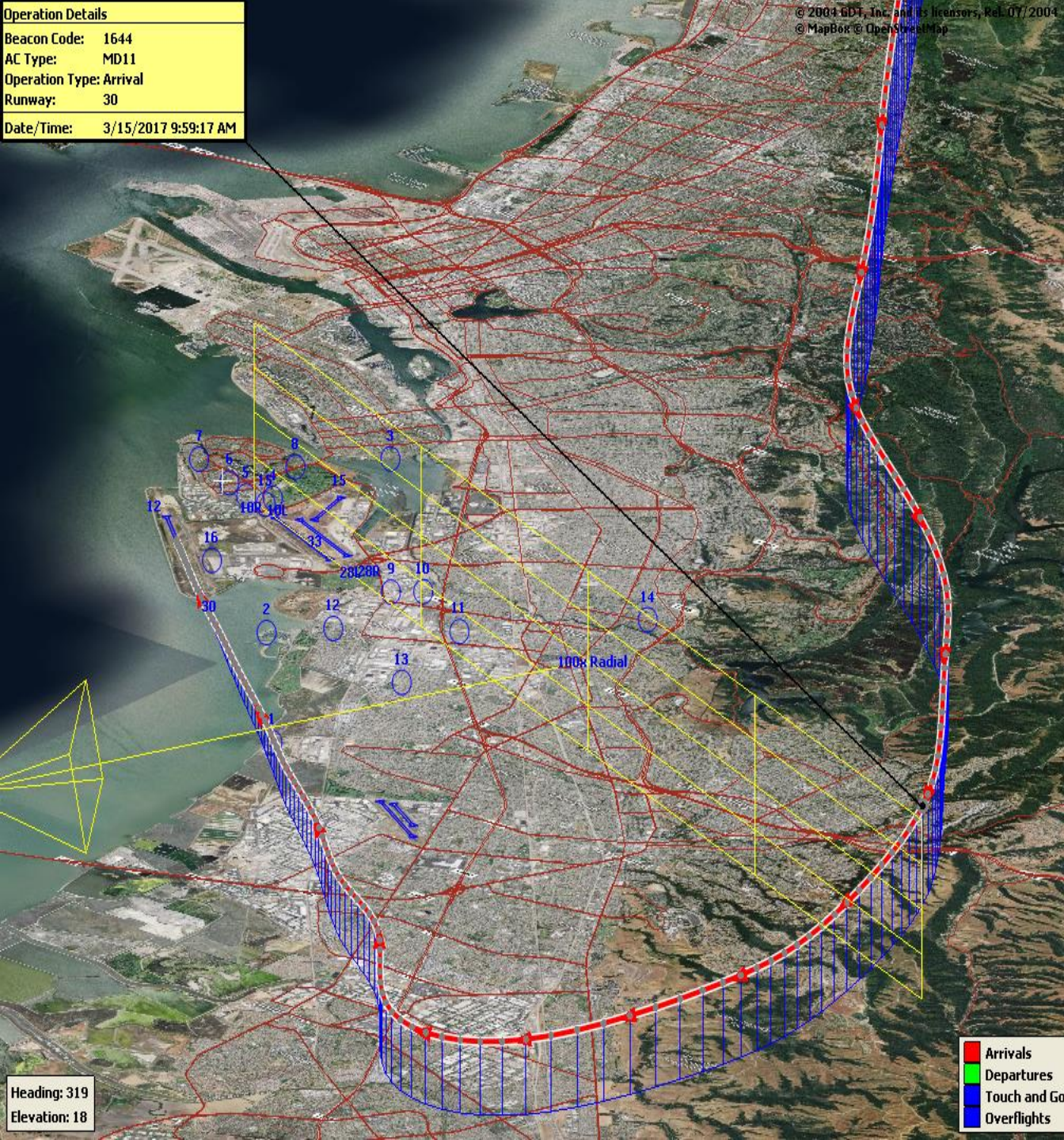
Date/Time: 3/15/2017 9:53:47 AM

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

© 2004 GDT, Inc. and its licensors, Rel. 07/2004
 © MapBox © OpenStreetMap



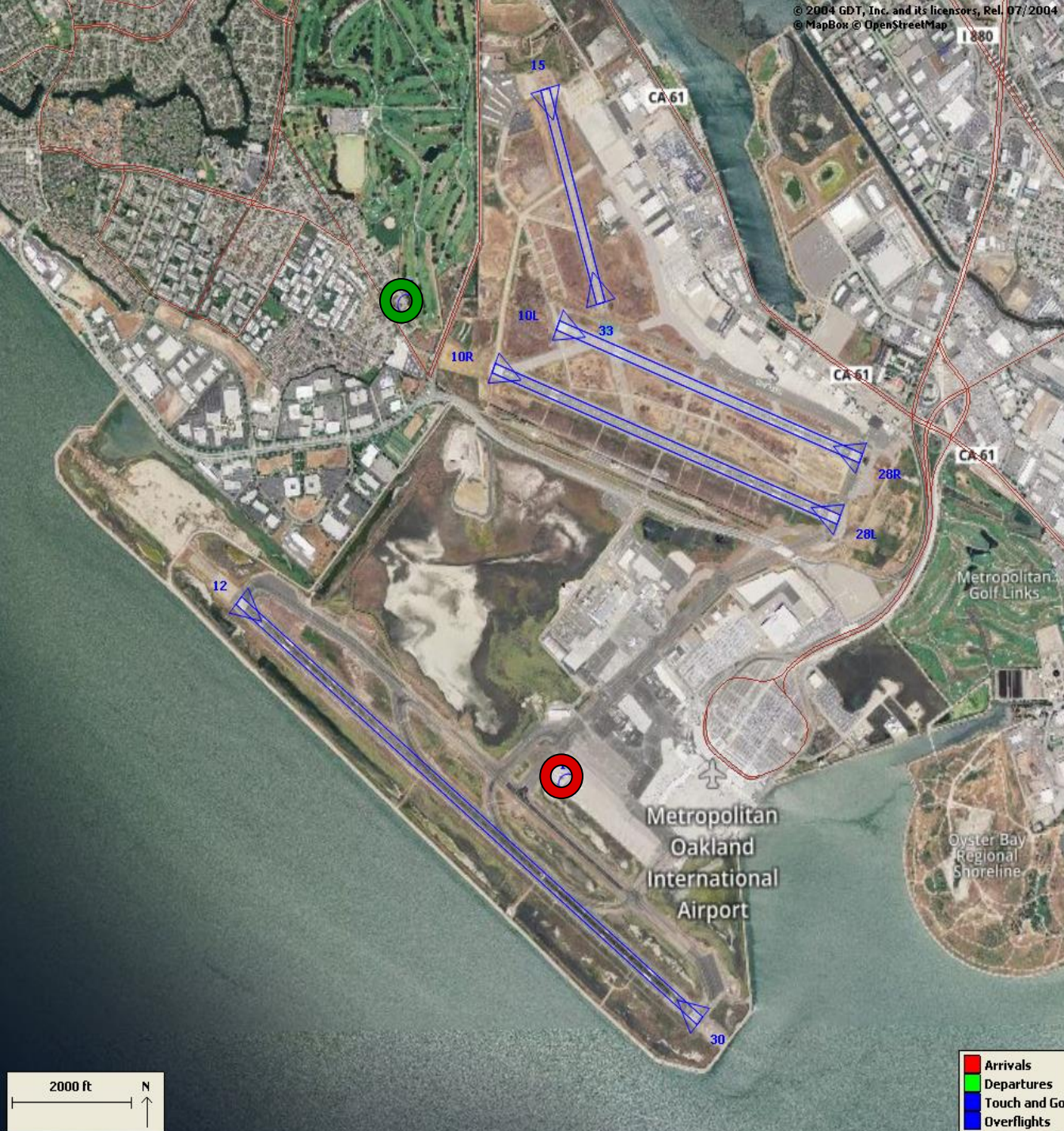
100 Degree Radial At 3,000 ft. NAP

2022Q2
99% Compliance
(1,150 total landings)
(12 non-compliant)

2021Q2
98% Compliance
(735 total landings)
(12 non-compliant)

Heading: 319
Elevation: 18

- Arrivals
- Departures
- Touch and Go
- Overflights



Engine Run-up NAP

2022Q2

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

2021Q2

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

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

Compliance Monitoring Quarterly Summary Comparison Second Quarter 2022 - Quarter-to-Quarter				
	2022Q1		2022Q2	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	93%	7%	93%	7%
Total Airport-wide Corporate Jet Departures	2,454	175	2,442	172
Runway 10R/L Jet Landing Compliance	85%	15%	86%	14%
Total Southeast Plan Corporate Jet Landings	92	16	30	5
North Field VFR Departure Compliance	91%	9%	86%	14%
Total Runways 28R/L & 33 Departures	224	21	258	41
North Field Quiet Hours Compliance	76%	24%	72%	28%
Total North Field Quiet Hours Departures	103	33	114	44
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	15,423	7	17,737	3
Night Time Departure Compliance	100%	0%	99%	1%
Total Runway 30 Night Turbojet Departures	2,431	12	3,422	32
Runway 12 Night Departure Compliance	100%	0%	98%	2%
Total Runway 12 Night Turbojet Departures	55	0	49	1
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	3,757	0	4,109	5
100 Degree Radial Turbojet Landing Compliance	99%	0%	99%	1%
Total 100 Degree Radial Turbojet Landings	817	6	1,138	12
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	5	0	6	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 = 158

Second 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	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
2	13	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	13
3	49	8	0.1	1.4%	6	0.1	1.1%	0	0.0	0.0%	63
4	52	68	0.8	12.0%	35	0.4	6.2%	12	0.1	2.1%	167
5	83	30	0.3	5.3%	19	0.2	3.4%	12	0.1	2.1%	144
6	81	19	0.2	3.4%	13	0.1	2.3%	9	0.1	1.6%	122
7	25	13	0.1	2.3%	9	0.1	1.6%	3	0.0	0.5%	50
8	55	18	0.2	3.2%	1	0.0	0.2%	0	0.0	0.0%	74
9	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	4
10	35	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	37
11	0	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	1
12	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	4
13	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
14	28	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	28
All NMTs	429	159	2	0	83	1	0	36	0	0	707

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 156

Second 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	49	8	0.1	3.3%	6	0.1	2.5%	0	0.0	0.0%	63
4	52	68	0.8	28.5%	35	0.4	14.6%	12	0.1	5.0%	167
5	83	30	0.3	12.6%	19	0.2	7.9%	12	0.1	5.0%	144
6	81	19	0.2	7.9%	13	0.1	5.4%	9	0.1	3.8%	122
7	25	13	0.1	5.4%	9	0.1	3.8%	3	0.0	1.3%	50
8	55	18	0.2	7.5%	1	0.0	0.4%	0	0.0	0.0%	74
Total	345	156	1.7		83	0.9		36	0.4		620

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 2

Second 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	13	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	13
9	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	4
10	35	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	37
11	0	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	1
12	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	4
13	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
14	28	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	28
Total	84	3	0.0		0	0.0		0	0.0		87

Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Second 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
Second Quarter 2022 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	283	94	54	64	73
DC10/MD10	16	5	7	66	75
MD11	201	67	83	66	74
A306	16	5	1	62	69
B757	212	71	44	62	73
B77L	114	38	12	64	72
Difference [A-B]					
DC10/MD10		-82	-25	-3	-3
MD11		35	70	-4	-5
A306		-62	-20	-5	-8

(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)

Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Second 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
A 306	67	21	67	77	25
Second Quarter 2021 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	273	91	12	67	74
DC10/MD10	49	16	5	66	75
MD11	225	75	45	66	74
A 306	13	4	1	72	78
B757	179	60	18	72	73
B77L	142	47	11	64	73
Difference [A-B]					
DC10/MD10		-71	-27	-3	-3
MD11		43	32	-4	-5
A 306		-63	-20	5	1

(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.

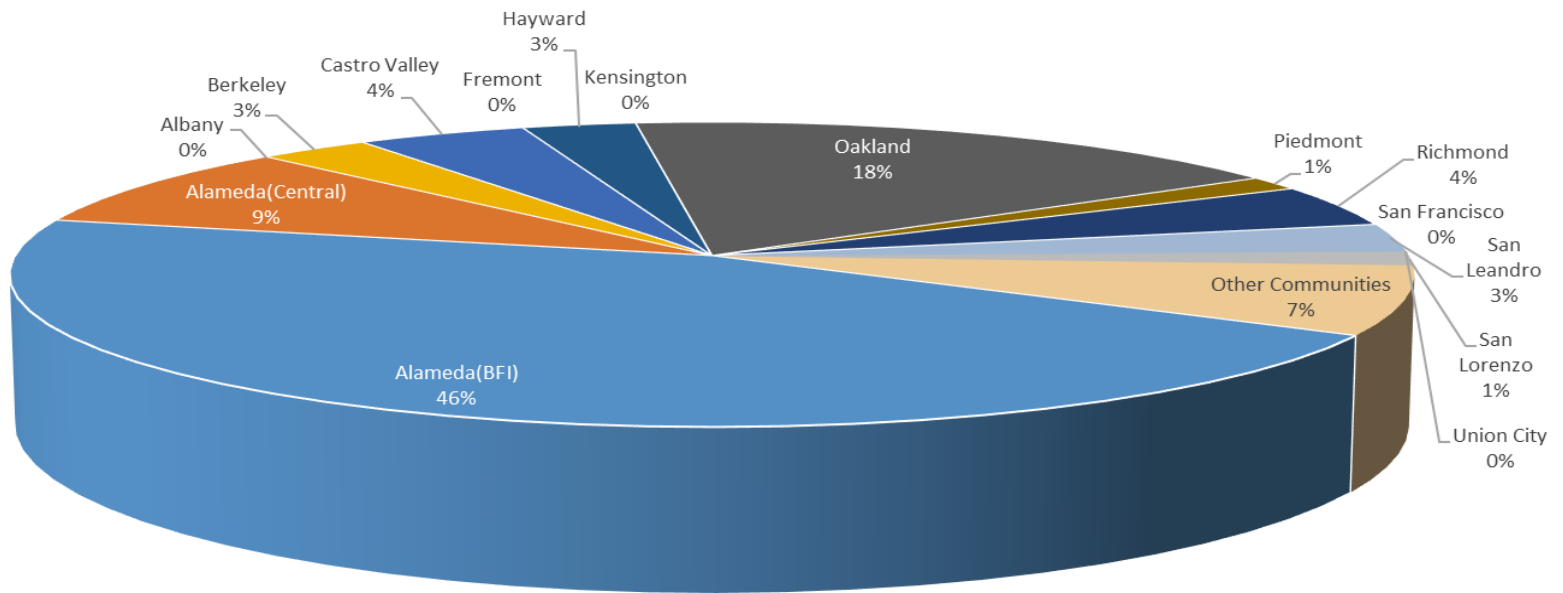
Source: ANOM S (Airport Noise and Operations Monitoring System)

Oakland International Airport Noise Complaint Summary April 2022		
Community	Callers	Complaints
Alameda(BFI)	31	438
Alameda(Central)	6	31
Albany	0	0
Berkeley	2	2
Castro Valley	3	80
Fremont	0	0
Hayw ard	2	21
Kensington	0	0
Oakland	12	3144
Piedmont	1	1
Richmond	3	51
San Francisco	0	0
San Leandro	2	26
Union City	0	0
San Lorenzo	1	1
Other Communities	5	126
Total	68	3921
Complaints by Type		
Website	0	
E-mail	3100	
Phone	0	
View point App	821	
Complaints by Time of Day		
Day (0700 - 1900)	835	
Evening (1900 - 2200)	490	
Night (2200 - 0700)	2596	
Complaints by Type of Operation		
Arrivals	2910	
Departures	851	
Over-flights	123	
Touch & Go	37	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	154	
Helicopter	85	
Jet	3437	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	3	
Propeller	189	
Turbo-prop	53	

Number of Callers

April 2022

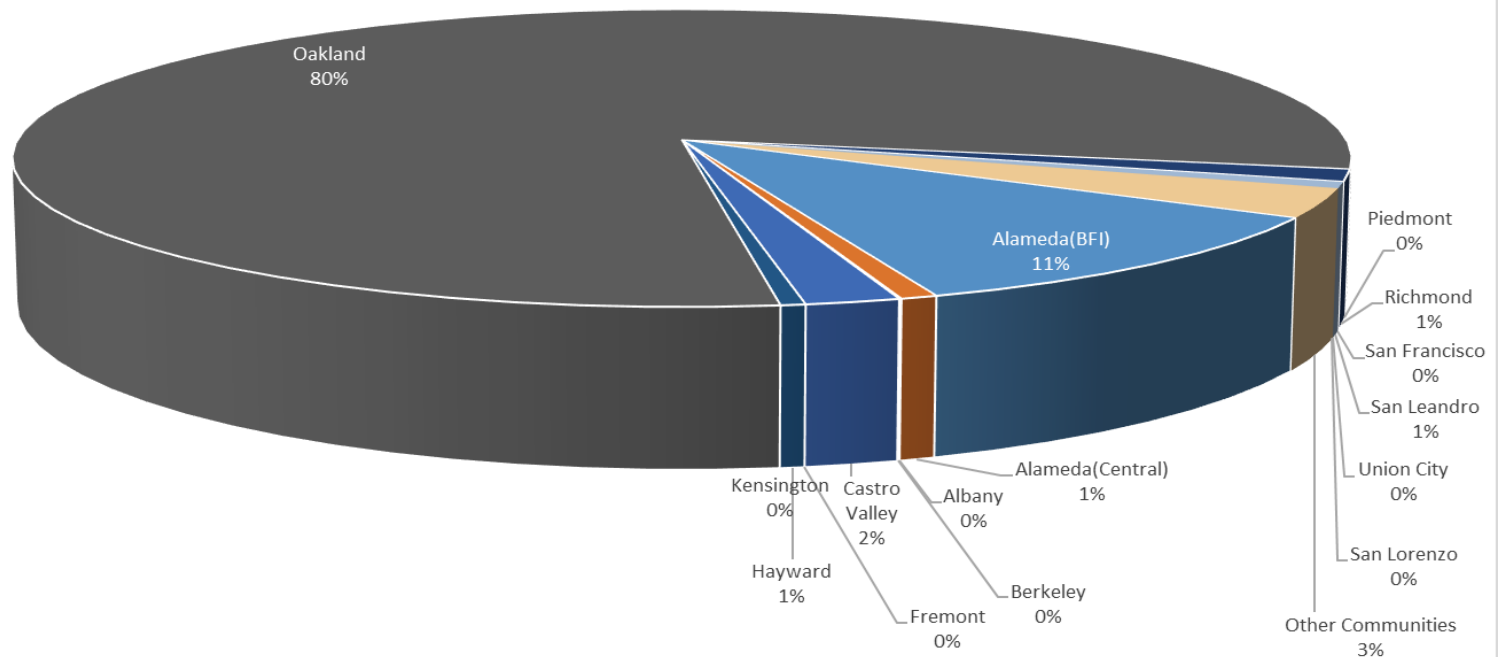
Noise Complaints Summary by Number of Callers



Number of Complaints

April 2022

Noise Complaints Summary by Number of Complaints

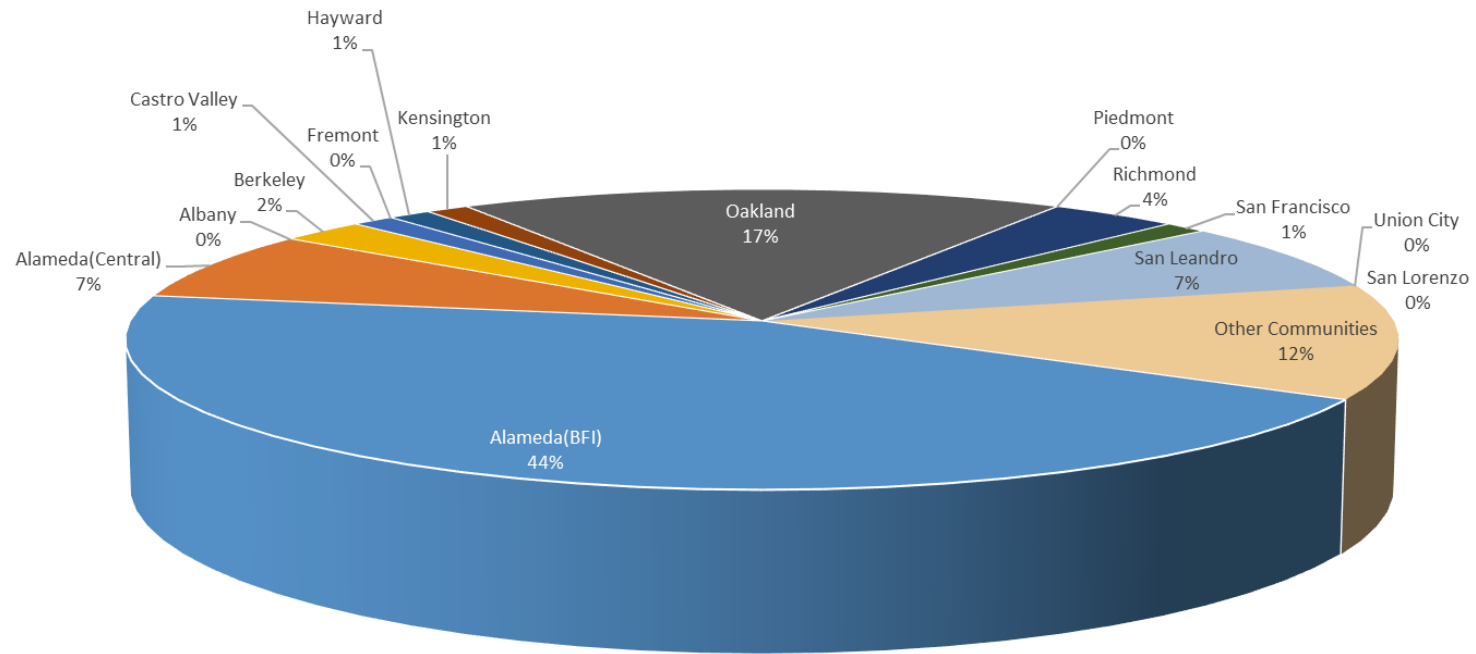


Oakland International Airport Noise Complaint Summary May 2022		
Community	Callers	Complaints
Alameda(BFI)	36	423
Alameda(Central)	6	31
Albany	0	0
Berkeley	2	2
Castro Valley	1	66
Fremont	0	0
Hayw ard	1	33
Kensington	1	1
Oakland	14	3223
Piedmont	0	0
Richmond	3	113
San Francisco	1	1
San Leandro	6	9
Union City	0	0
San Lorenzo	0	0
Other Communities	10	491
Total	81	4393
Complaints by Type		
E-mail	3547	
View point App	846	
Complaints by Time of Day		
Day (0700 - 1900)	828	
Evening (1900 - 2200)	447	
Night (2200 - 0700)	3118	
Complaints by Type of Operation		
Arrivals	3590	
Departures	698	
Over-flights	57	
Touch & Go	48	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	118	
Helicopter	28	
Jet	4033	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	14	
Propeller	143	
Turbo-prop	57	

Number of Callers

May 2022

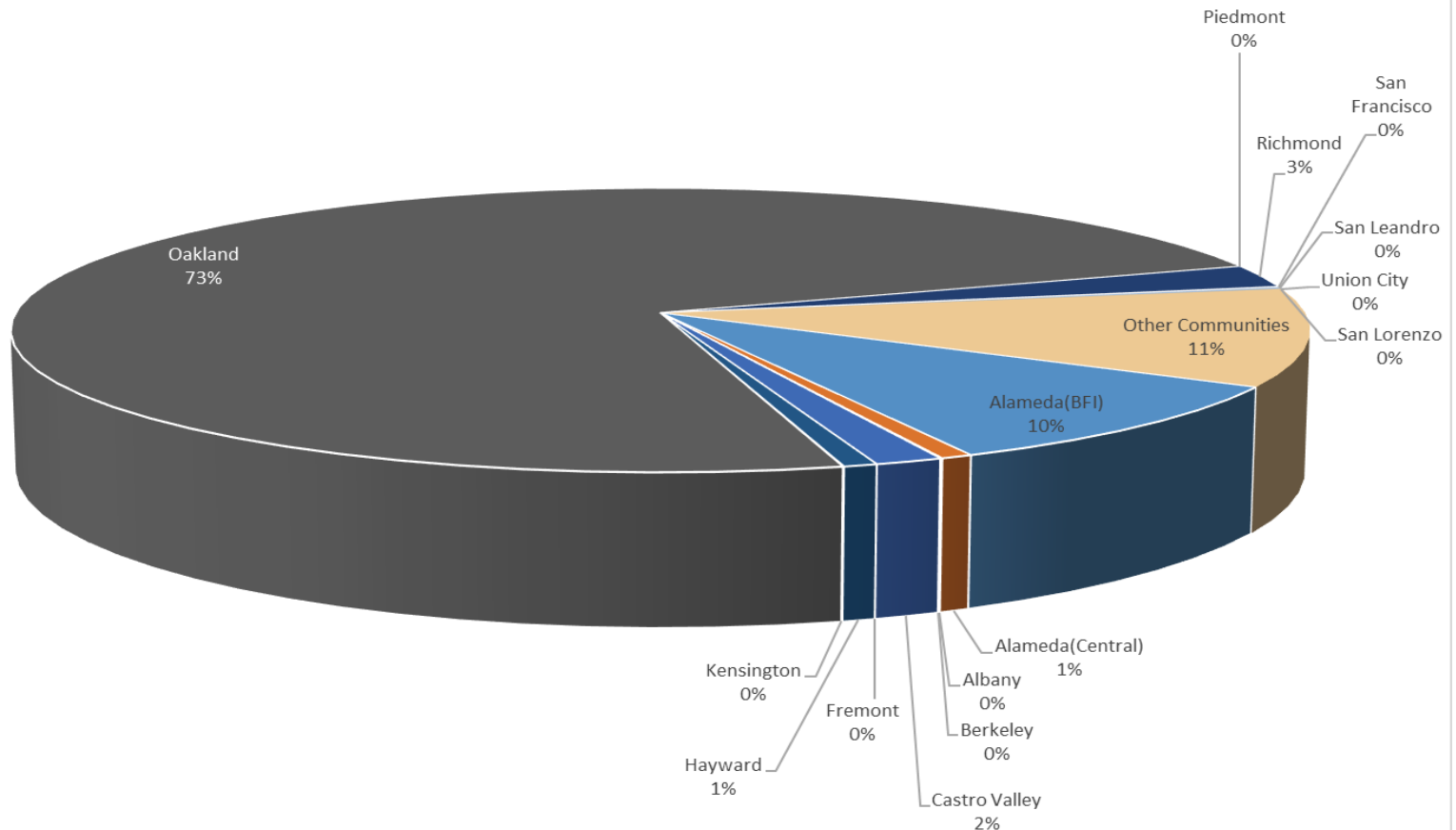
Noise Complaints Summary by Number of Callers



Number of Complaints

May 2022

Noise Complaints Summary by Number of Complaints

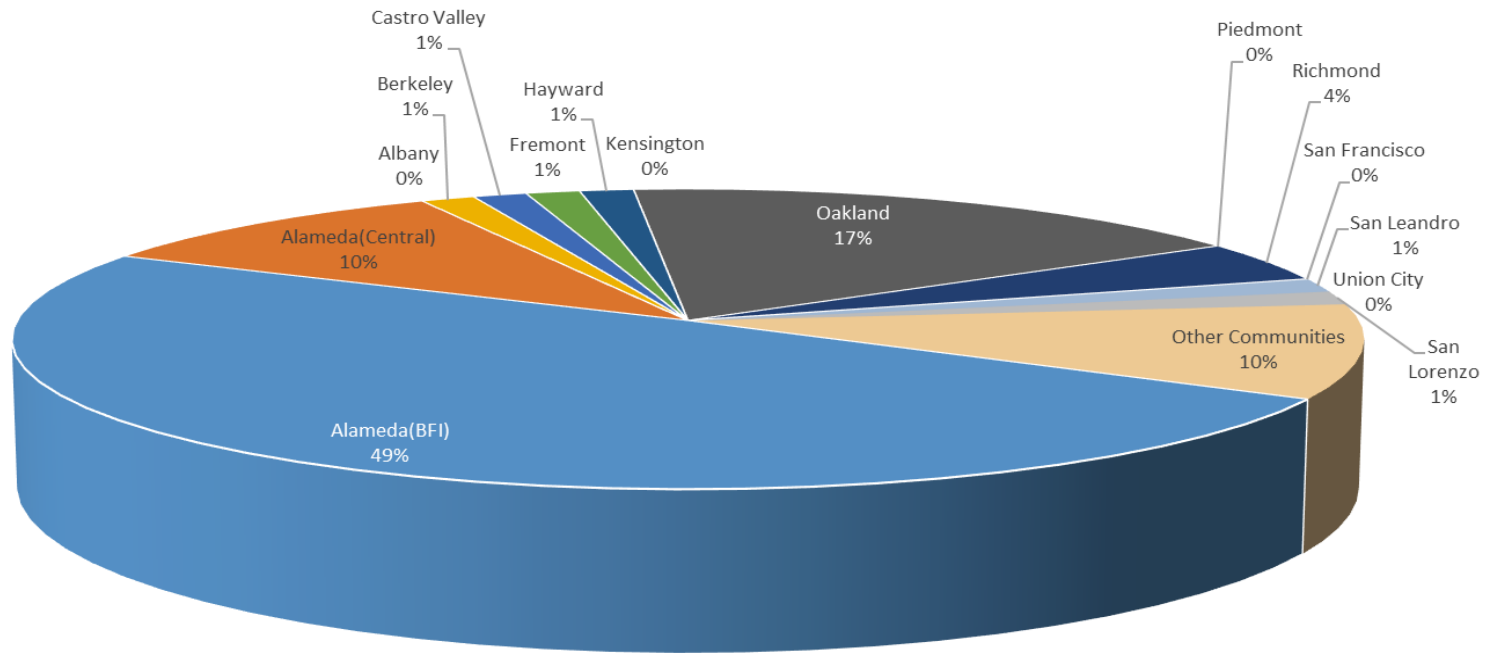


Oakland International Airport Noise Complaint Summary June 2022		
Community	Callers	Complaints
Alameda(BFI)	34	322
Alameda(Central)	7	32
Albany	0	0
Berkeley	1	1
Castro Valley	1	102
Fremont	1	1
Hayw ard	1	1
Kensington	0	0
Oakland	12	3386
Piedmont	0	0
Richmond	3	197
San Francisco	0	0
San Leandro	1	2
Union City	0	0
San Lorenzo	1	2
Other Communities	7	195
Total	69	4241
Complaints by Type		
E-mail	3418	
View point App	823	
Complaints by Time of Day		
Day (0700 - 1900)	1486	
Evening (1900 - 2200)	902	
Night (2200 - 0700)	1853	
Complaints by Type of Operation		
Arrivals	2795	
Departures	1383	
Over-flights	15	
Touch & Go	48	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	144	
Helicopter	20	
Jet	3726	
Military	0	
Not Reported (not linked to an aircraft)	0	
Other (Type information not available)	5	
Propeller	302	
Turbo-prop	44	

Number of Callers

June 2022

Noise Complaints Summary by Number of Callers



Number of Complaints

June 2022

Noise Complaints Summary by Number of Complaints

