

NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

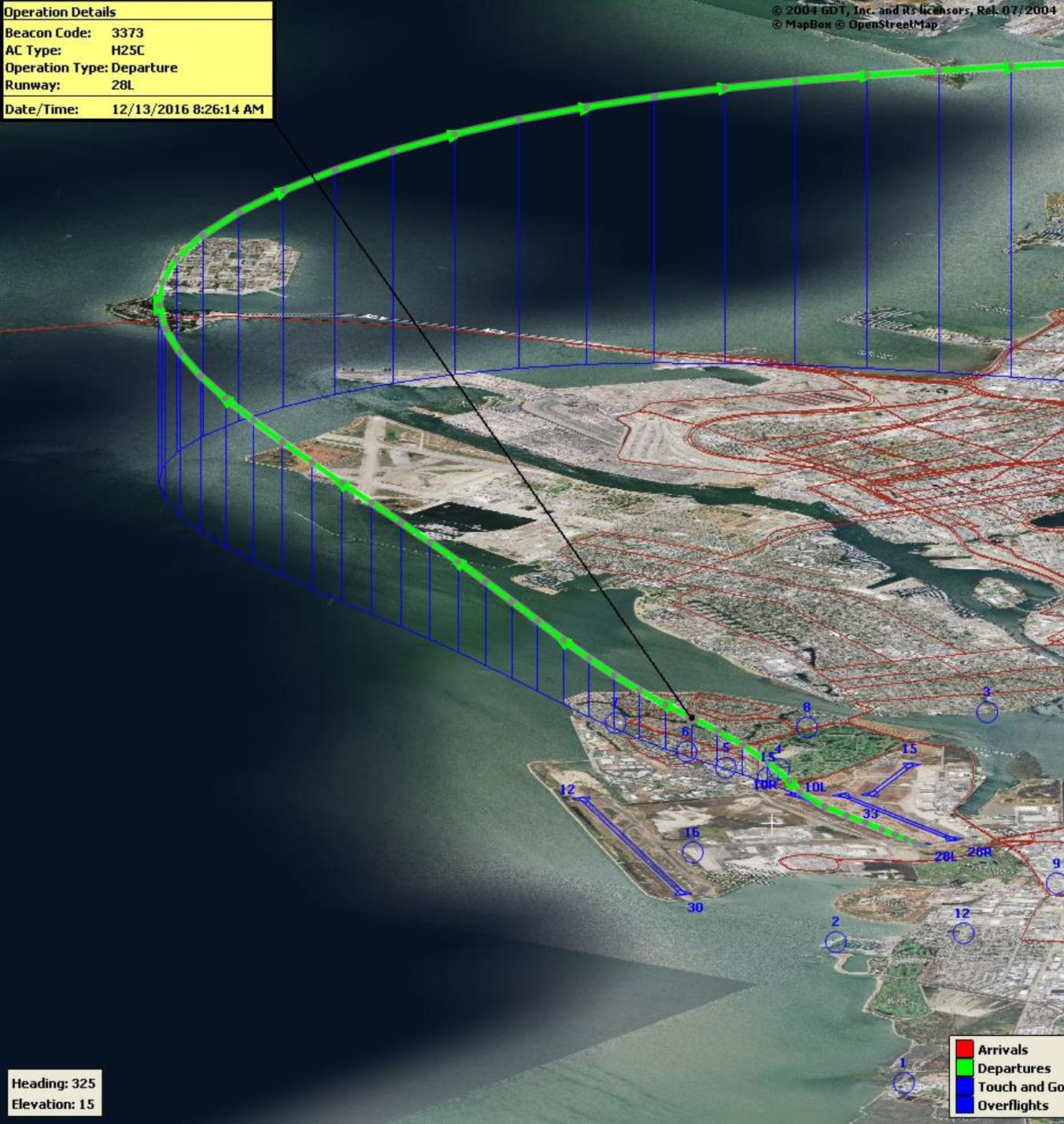
THIRD QUARTER 2018

Compliance Monitoring Quarterly Summary Comparison Third Quarter 2018				
	2017Q3		2018Q3	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	95%	5%	94%	6%
Total Airport-wide Corporate Jet Departures	2,742	155	2,635	167
Runway 10R/L Jet Landing Compliance	100%	0%	44%	56%
Total Southeast Plan Corporate Jet Landings	0	0	4	5
North Field VFR Departure Compliance	98%	2%	93%	7%
Total Runways 28R/L & 33 Departures	534	9	375	30
North Field Quiet Hours Compliance	88%	12%	69%	31%
Total North Field Quiet Hours Departures	409	54	221	97
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	18,623	3	20,436	4
Night Time Departure Compliance	96%	4%	98%	2%
Total Runway 30 Night Turbojet Departures	3,570	165	3,814	78
Runway 12 Night Departure Compliance	75%	25%	100%	0%
Total Runway 12 Night Turbojet Departures	3	1	0	0
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	5,878	20	6,647	3
100 Degree Radial Turbojet Landing Compliance	96%	4%	99%	1%
Total 100 Degree Radial Turbojet Landings	2,745	109	1,294	9
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	12	0	26	0
Note: N/C means non-compliant. Percentage values are rounded out.				

Link to full report: http://flyquiotoak.com/pages/reports/quarterly_noise_compliance.html

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

2018Q3
94% Compliance
(2,802 total departures)
(167 non-compliant)

2017Q3
95% Compliance
(2,897 total departures)
(155 non-compliant)

- Arrivals
- Departures
- Touch and Go
- Overflights

Heading: 325
Elevation: 15

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

2018Q3
44 % Compliance
(9 total landings)
(5 non-compliant)

2017Q3
(N/A) Compliance
(0 total landings)
(0 non-compliant)

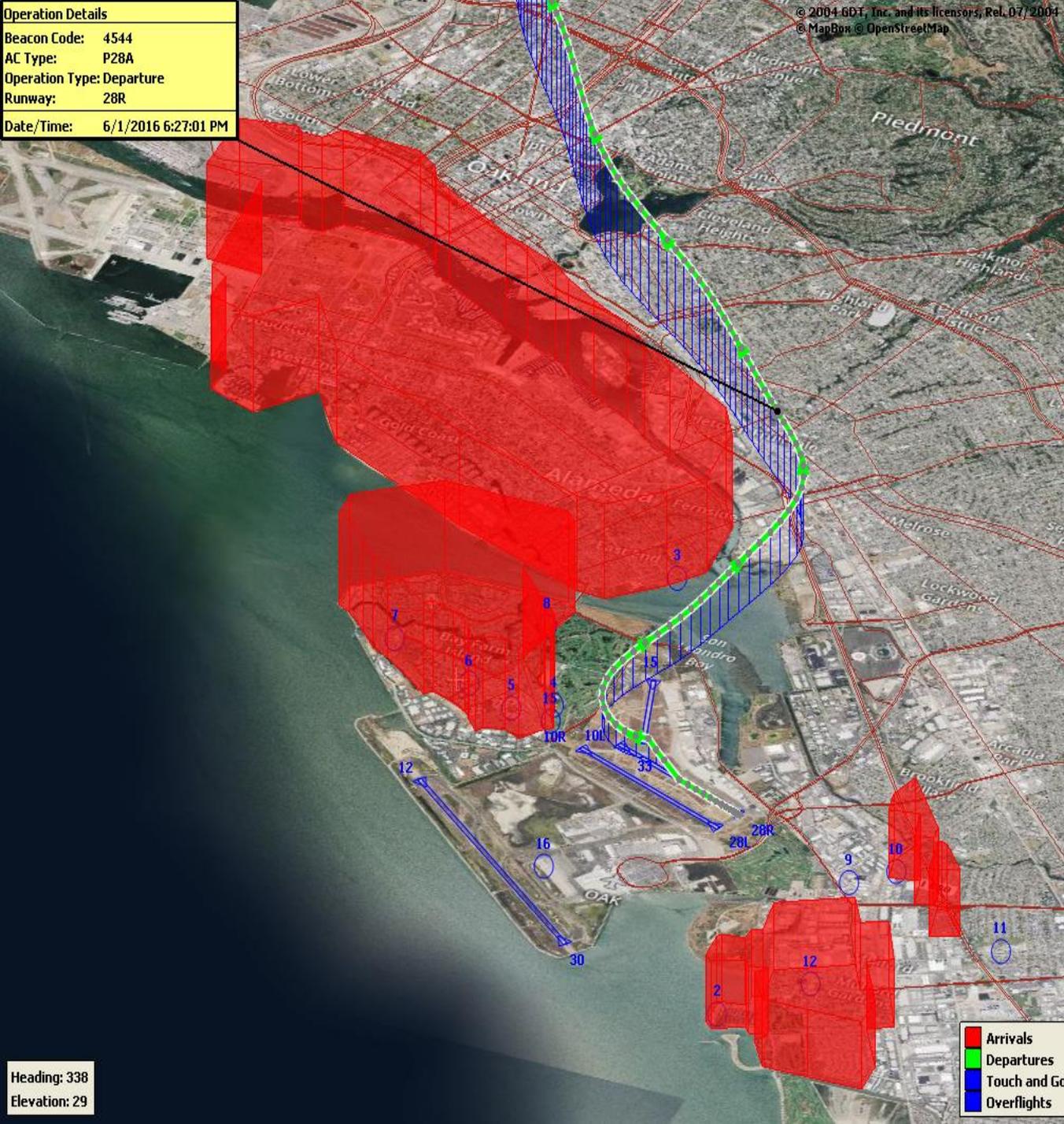
Heading: 325
Elevation: 15

■	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

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VFR Aircraft Departure NAP

2018Q3
93% Compliance
(405 total departures)
(30 non-compliant)

2017Q3
98% Compliance
(543 total departures)
(9 non-compliant)

- Arrivals
- Departures
- Touch and Go
- Overflights

Heading: 338
 Elevation: 29

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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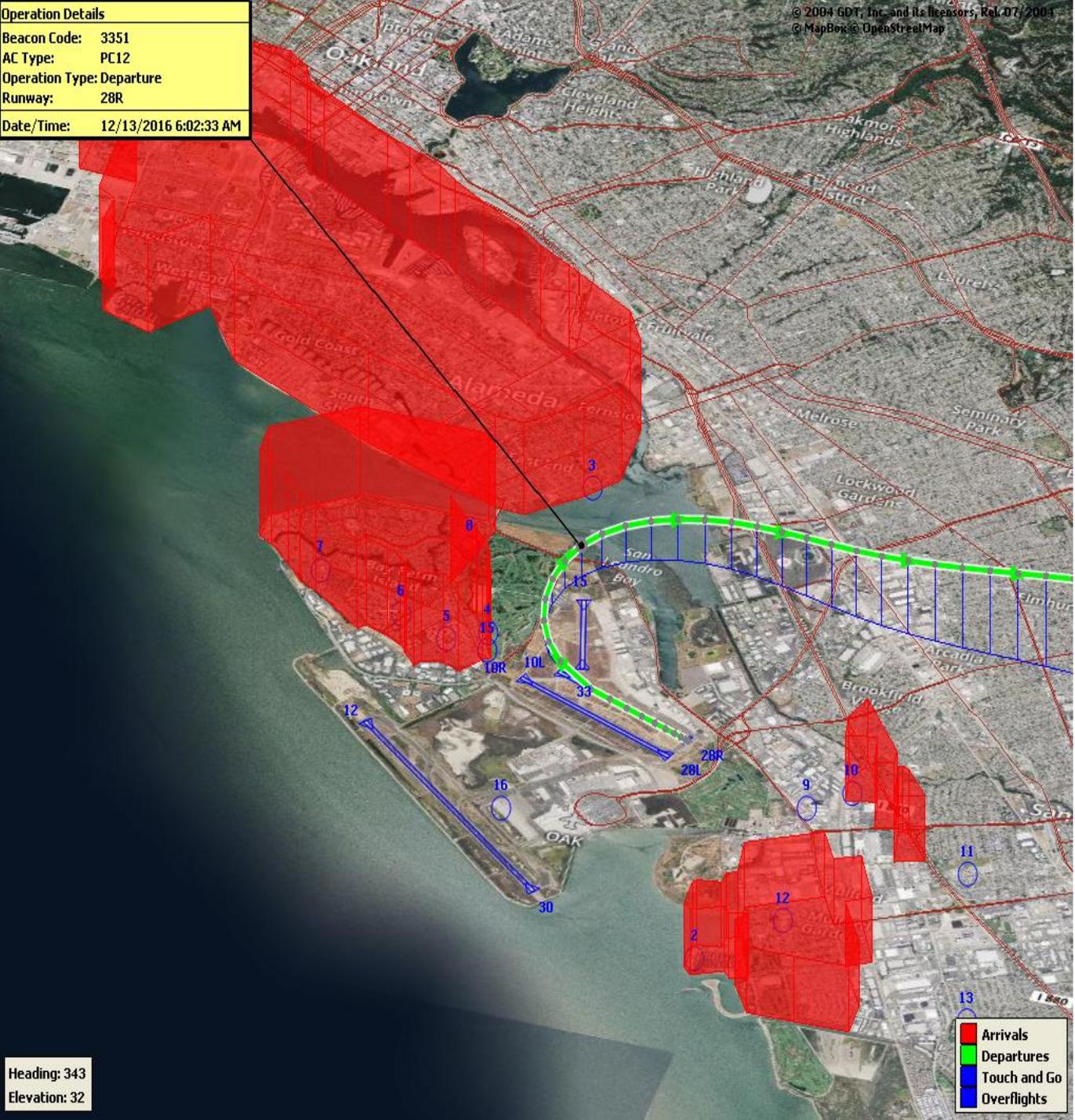
North Field Quiet Hours NAP

2018Q3
69% Compliance
(318 total departures)
(97 non-compliant)

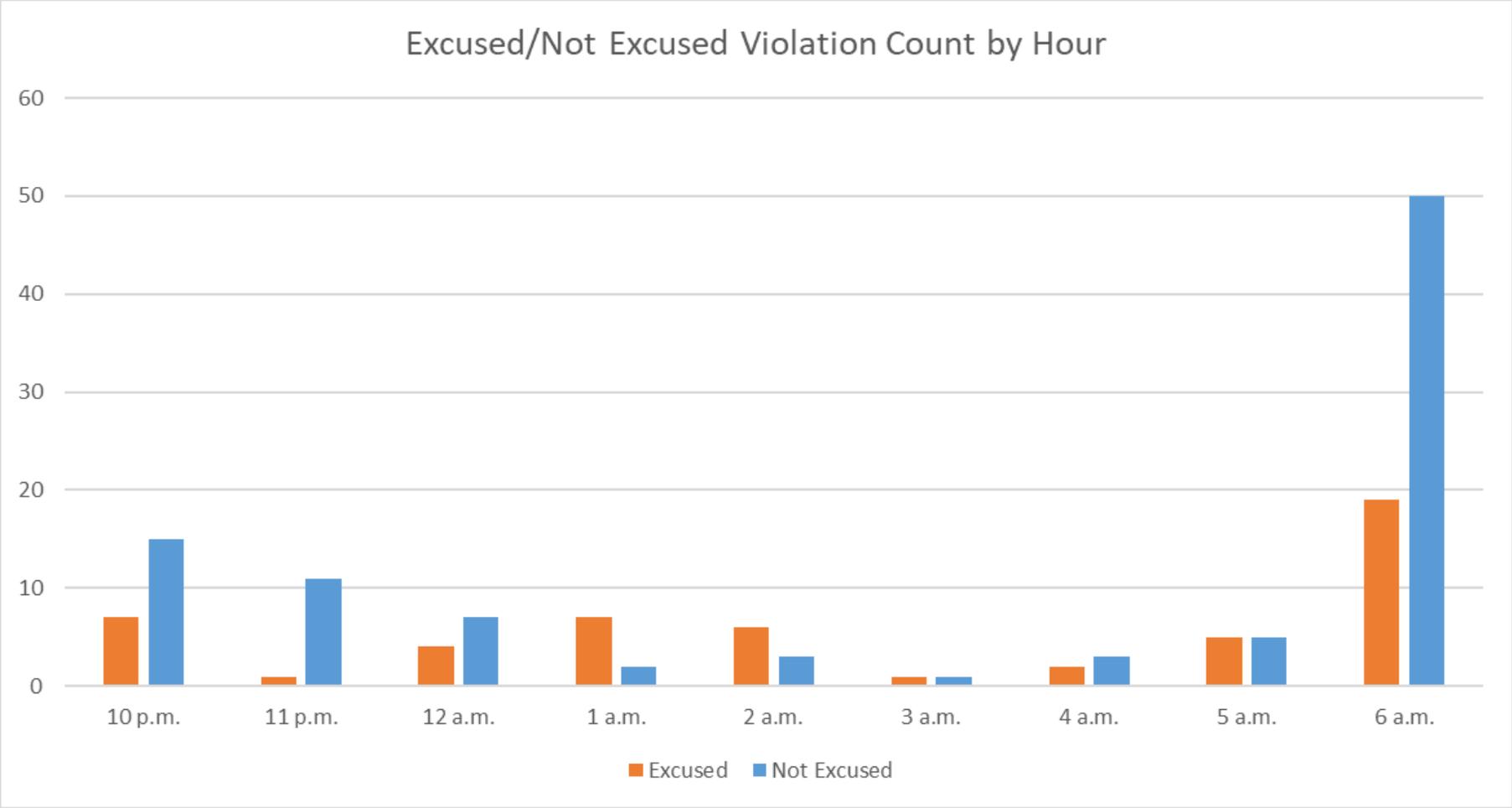
2017Q3
88% Compliance
(463 total departures)
(54 non-compliant)

Heading: 343
Elevation: 32

Arrivals
Departures
Touch and Go
Overflights



North Field Quiet Hours NAP Non-Compliant by Hour



Operation Details
 Beacon Code: 3641
 AC Type: B737
 Operation Type: Departure
 Runway: 30
 Date/Time: 8/22/2017 10:14:11 PM



Night Time Departure NAP

2018Q3*
98% Compliance
(3,892 total departures)
(78 non-compliant)

*REBAS Gate non-compliant = 70

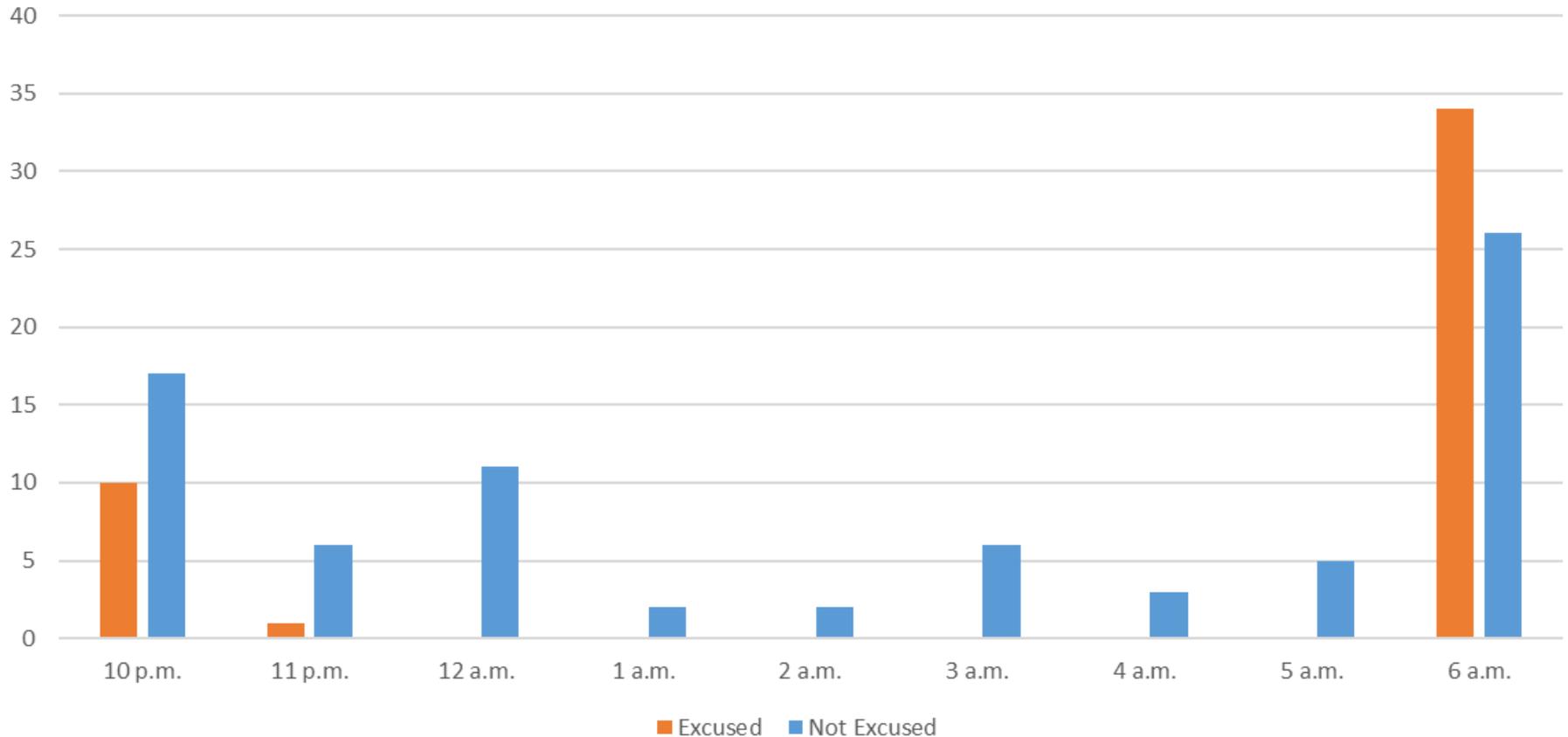
2017Q3
96% Compliance
(3,735 total departures)
(165 non-compliant)

Arrivals
 Departures
 Touch and Go
 Overflights

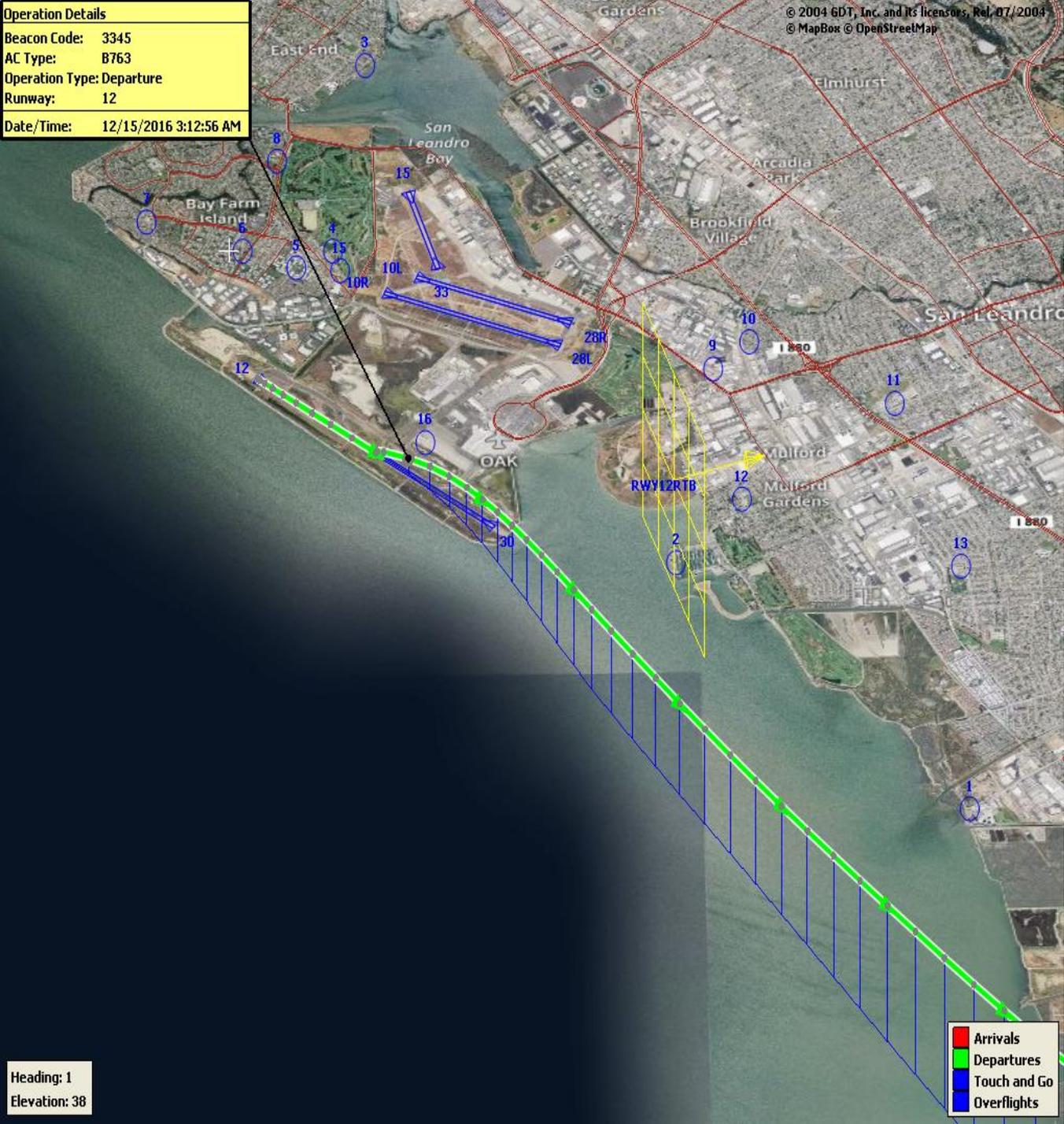
Heading: 356
 Elevation: 37

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



Runway 12 Night Departure NAP

2018Q3
(N/A) Compliance
(0 total departures)
(0 non-compliant)

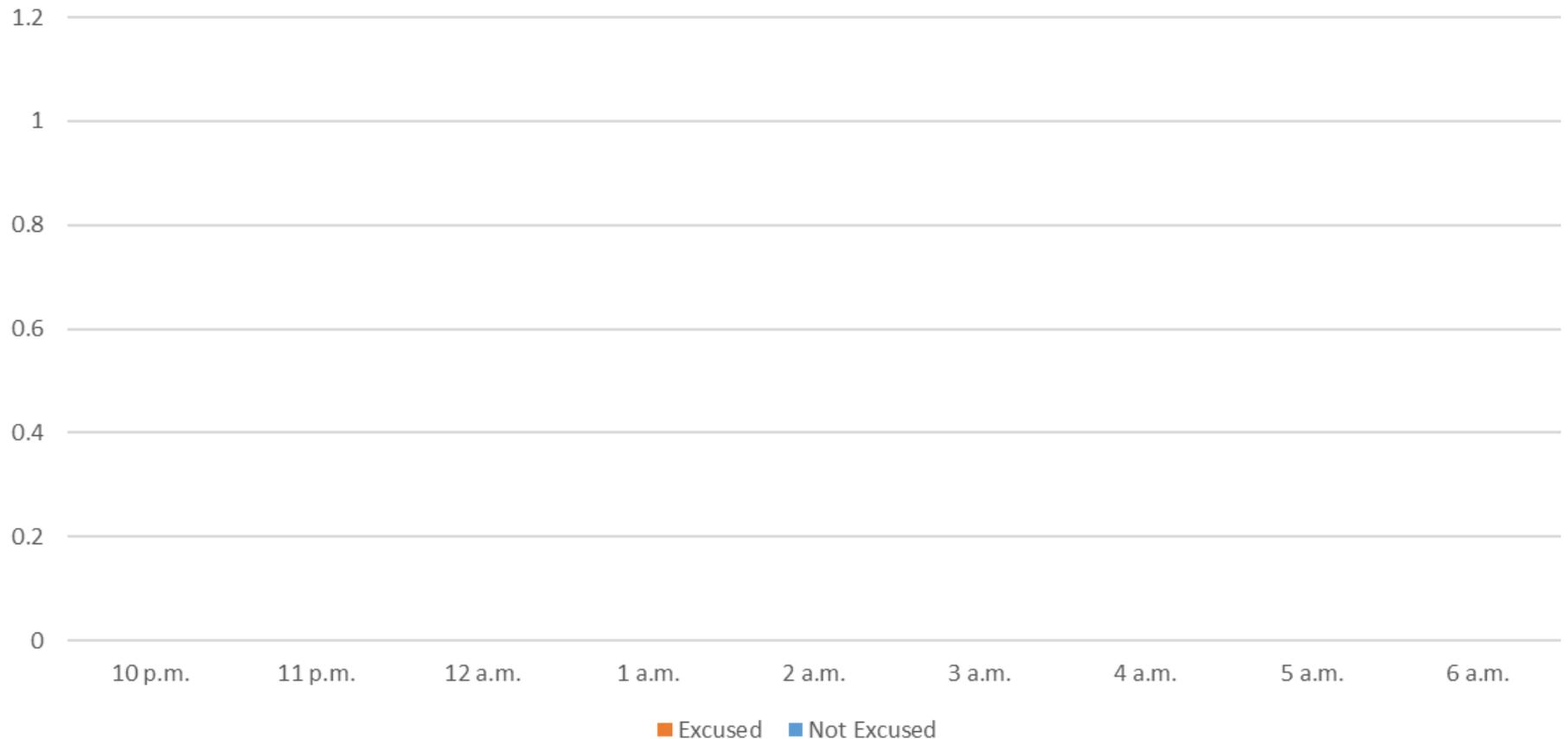
2017Q3
75% Compliance
(4 total departures)
(1 non-compliant)

Heading: 1
Elevation: 38

Arrivals
Departures
Touch and Go
Overflights

Runway 12 Night Departure Non-Compliant Count by Hour

Excused/Not Excused Violation Count by Hour



Runway 30 Bay Farm Right Turn NAP

2018Q3
100% Compliance
(20,440 total departures)
(4 non-compliant)

2017Q3
100% Compliance
(18,626 total departures)
(3 non-compliant)

Operation Details	
Beacon Code:	3777
AC Type:	B737
Operation Type:	Departure
Runway:	30
Date/Time:	3/15/2017 9:52:55 AM

Heading: 333
Elevation: 23

- Arrivals
- Departures
- Touch and Go
- Overflights





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

Runway 30 East Turn NAP

2018Q3
100% Compliance
(6,650 total departures)
(3 non-compliant)

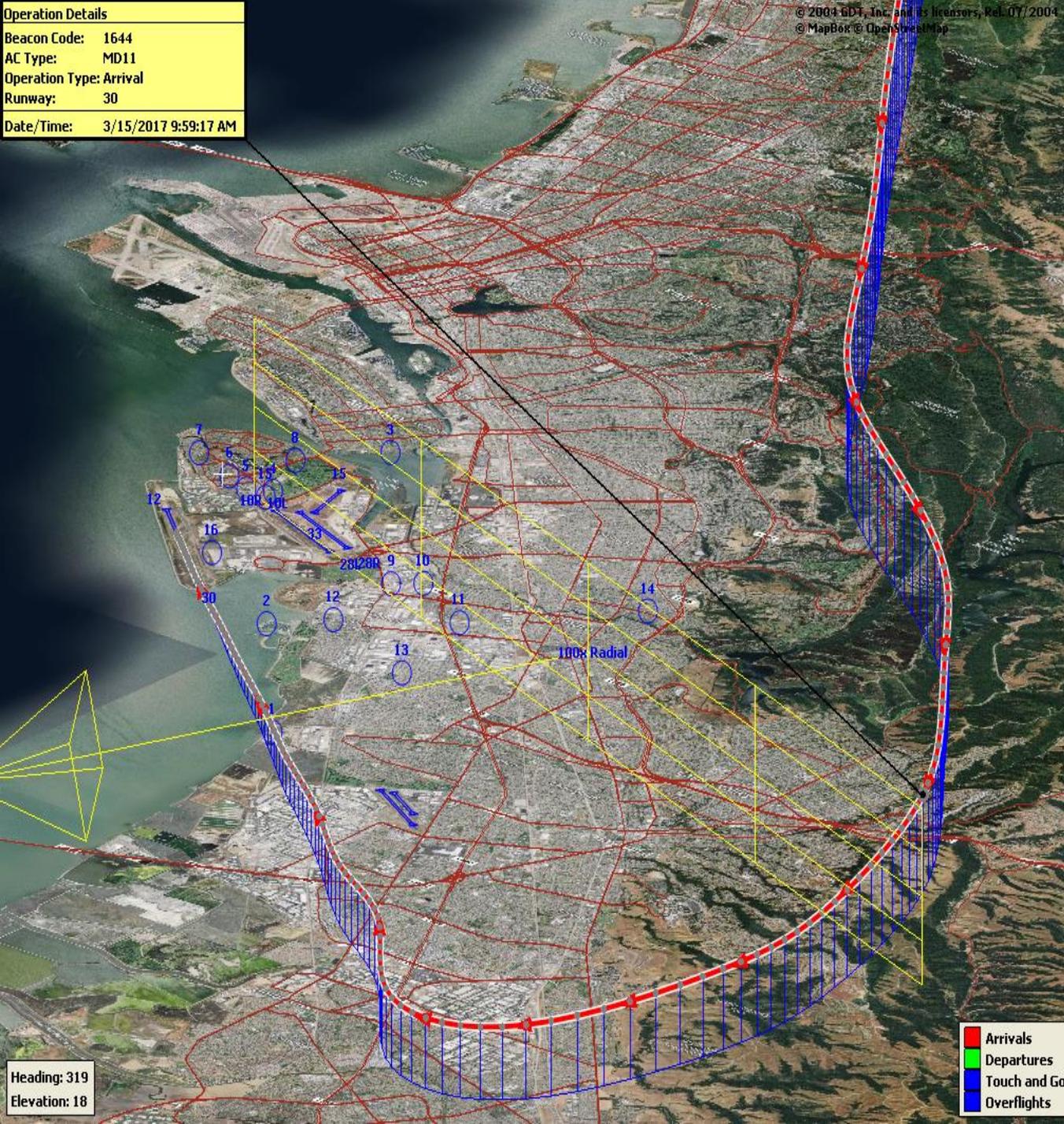
*2018Q3 Excused Departures = 101

2017Q3
99% Compliance
(5,898 total departures)
(20 non-compliant)

Red	Arrivals
Green	Departures
Blue	Touch and Go
Black	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

2018Q3
99% Compliance
(1,303 total landings)
(9 non-compliant)

2017Q3
96% Compliance
(2,854 total landings)
(109 non-compliant)

Heading: 319
Elevation: 18

■ Arrivals
■ Departures
■ Touch and Go
■ Overflights



Engine Run-up NAP

2018Q3
100% Compliance
(26 engine run-ups)*
(0 non-compliant)

2017Q3
100% Compliance
(12 engine run-ups)
(0 non-compliant)

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



Table 1. North Field Night Aircraft Departure SEL Noise Measurements
Total Aircraft Departures = 116

Third Quarter 2018 (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	5	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	5
3	19	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	21
4	30	20	0.2	3.5%	15	0.2	2.6%	9	0.1	1.6%	74
5	26	12	0.1	2.1%	7	0.1	1.2%	15	0.2	2.6%	60
6	14	3	0.0	0.5%	16	0.2	2.8%	3	0.0	0.5%	36
7	15	7	0.1	1.2%	3	0.0	0.5%	0	0.0	0.0%	25
8	15	9	0.1	1.6%	0	0.0	0.0%	0	0.0	0.0%	24
9	1	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	2
10	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
11	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	1
12	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
13	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
14	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
All NMTs	128	54	1	0	41	0	0	27	0	0	250

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 111

Third Quarter 2018 (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	19	2	0.0	0.8%	0	0.0	0.0%	0	0.0	0.0%	21
4	30	20	0.2	8.4%	15	0.2	6.3%	9	0.1	3.8%	74
5	26	12	0.1	5.0%	7	0.1	2.9%	15	0.2	6.3%	60
6	14	3	0.0	1.3%	16	0.2	6.7%	3	0.0	1.3%	36
7	15	7	0.1	2.9%	3	0.0	1.3%	0	0.0	0.0%	25
8	15	9	0.1	3.8%	0	0.0	0.0%	0	0.0	0.0%	24
Total	119	53	0.6		41	0.5		27	0.3		240

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 5

Third Quarter 2018 (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	5	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	5
9	1	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	2
10	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
11	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	1
12	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
13	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
14	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
Total	9	1	0.0		0	0.0		0	0.0		10

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Third Quarter 2018, 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	
Third Quarter 2018 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	182	61	3	64	71	8
DC10/MD10	47	16	4	64	71	8
MD11	211	70	48	64	73	13
A306	118	39	8	65	73	11
B757	178	59	15	65	73	11
B77L	76	25	7	65	73	14
Difference [A-B]						
DC10/MD10		-71	-28	-5	-7	-14
MD11		38	35	-6	-6	-11
A306		-28	-13	-2	-4	-14

(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)
Third Quarter 2017, 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
Third Quarter 2017 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	174	58	3	63	70
DC10/MD10	64	21	12	65	74
MD11	218	73	69	66	74
A306	114	38	5	63	72
B757	178	59	11	63	73
B77L	65	22	9	64	72
Difference [A-B]					
DC10/MD10		-66	-20	-4	-4
MD11		41	56	-4	-5
A306		-29	-16	-4	-5

(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)

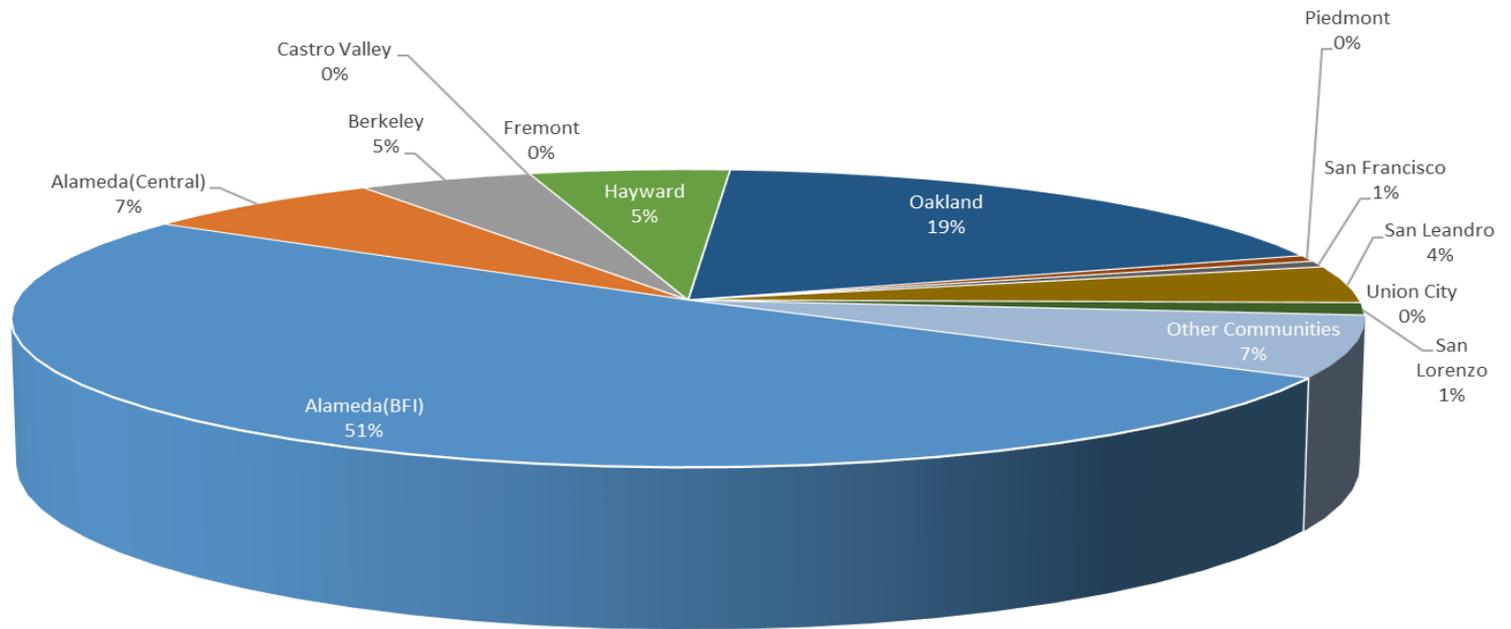
**Oakland International Airport
Noise Complaint Summary
July 2018**

Community	Callers	Complaints
Alameda(BFI)	76	442
Alameda(Central)	10	39
Berkeley	7	14
Castro Valley	0	0
Fremont	0	0
Hayward	8	91
Oakland	28	5357
Piedmont	1	6
San Francisco	1	28
San Leandro	6	13
Union City	0	0
San Lorenzo	2	2
Other Communities	10	774
Total	149	6766
Complaints by Type		
Website		1421
E-mail		5179
Phone		166
Complaints by Time of Day		
Day (0700 - 1900)		1853
Evening (1900 - 2200)		536
Night (2200 - 0700)		4377
Complaints by Type of Operation		
Arrivals		4719
Departures		2028
Over-flights		19
Touch & Go		0
Not Linked to an Operation		0
Complaints by Type of Aircraft		
Business Jet		489
Helicopter		29
Jet		5727
Military		0
Not Reported		0
Other		31
Propeller		389
Turbo-prop		101

Number of Callers

July 2018

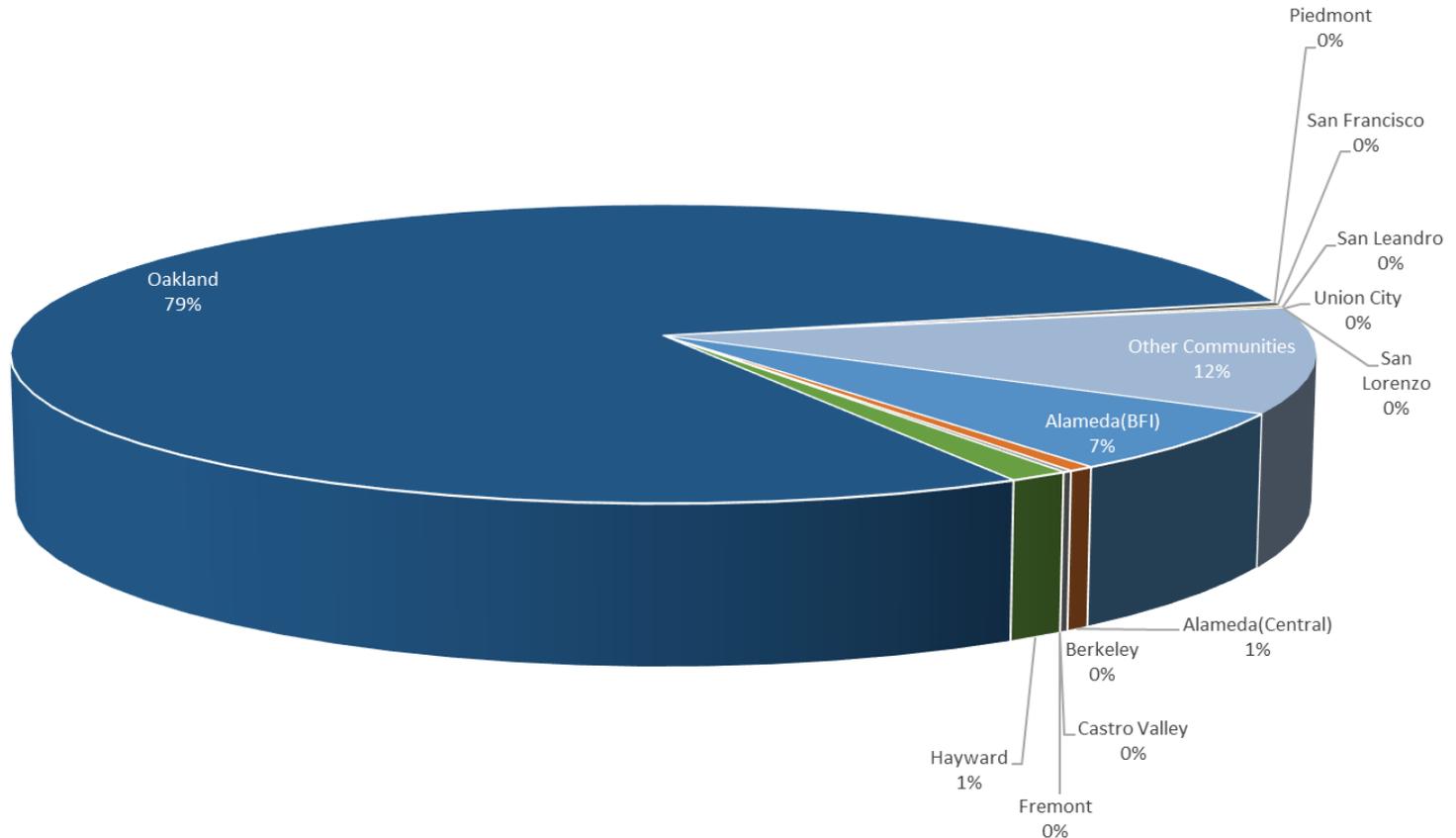
Noise Complaints Summary by Number of Callers



Number of Complaints

July 2018

Noise Complaints Summary by Number of Complaints



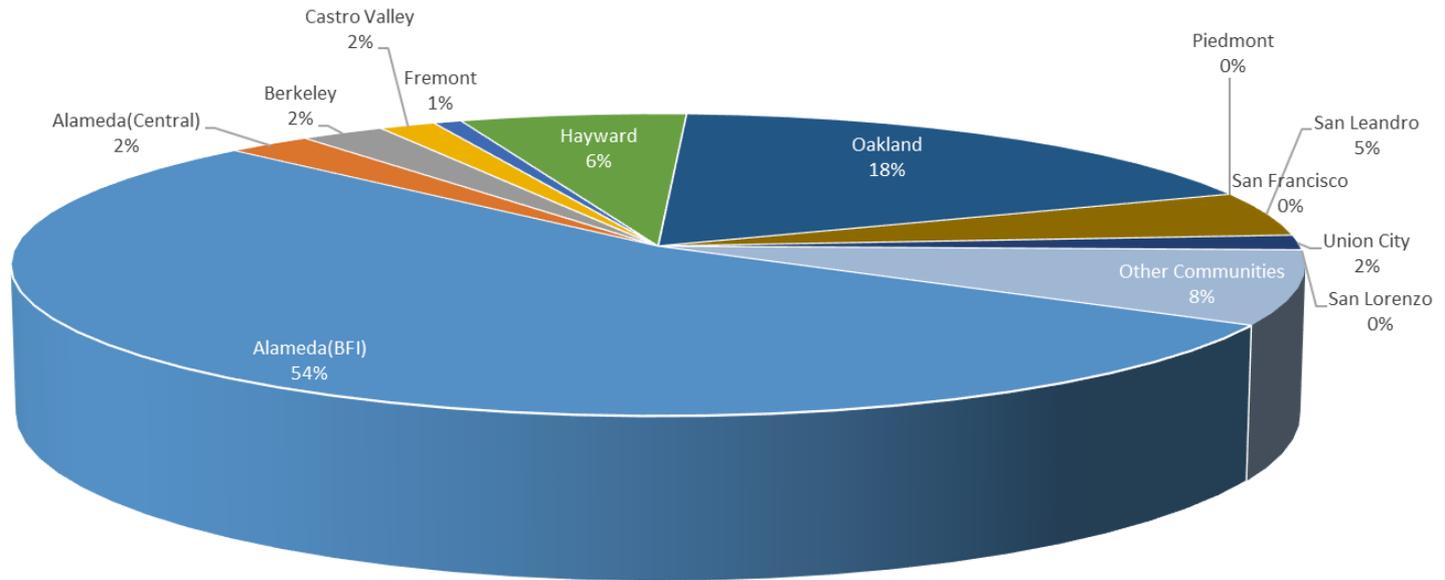
**Oakland International Airport
Noise Complaint Summary
August 2018**

Community	Callers	Complaints
Alameda(BFI)	68	375
Alameda(Central)	3	9
Berkeley	3	6
Castro Valley	2	3
Fremont	1	1
Hayward	8	81
Oakland	23	4339
Piedmont	0	0
San Francisco	0	0
San Leandro	6	40
Union City	2	128
San Lorenzo	0	0
Other Communities	10	361
Total	126	5343
Complaints by Type		
Website		852
E-mail		4407
Phone		84
Complaints by Time of Day		
Day (0700 - 1900)		1764
Evening (1900 - 2200)		966
Night (2200 - 0700)		2613
Complaints by Type of Operation		
Arrivals		3425
Departures		1907
Over-flights		8
Touch & Go		3
Not Linked to an Operation		0
Complaints by Type of Aircraft		
Business Jet		640
Helicopter		9
Jet		4376
Military		0
Not Reported		0
Other		24
Propeller		211
Turbo-prop		83

Number of Callers

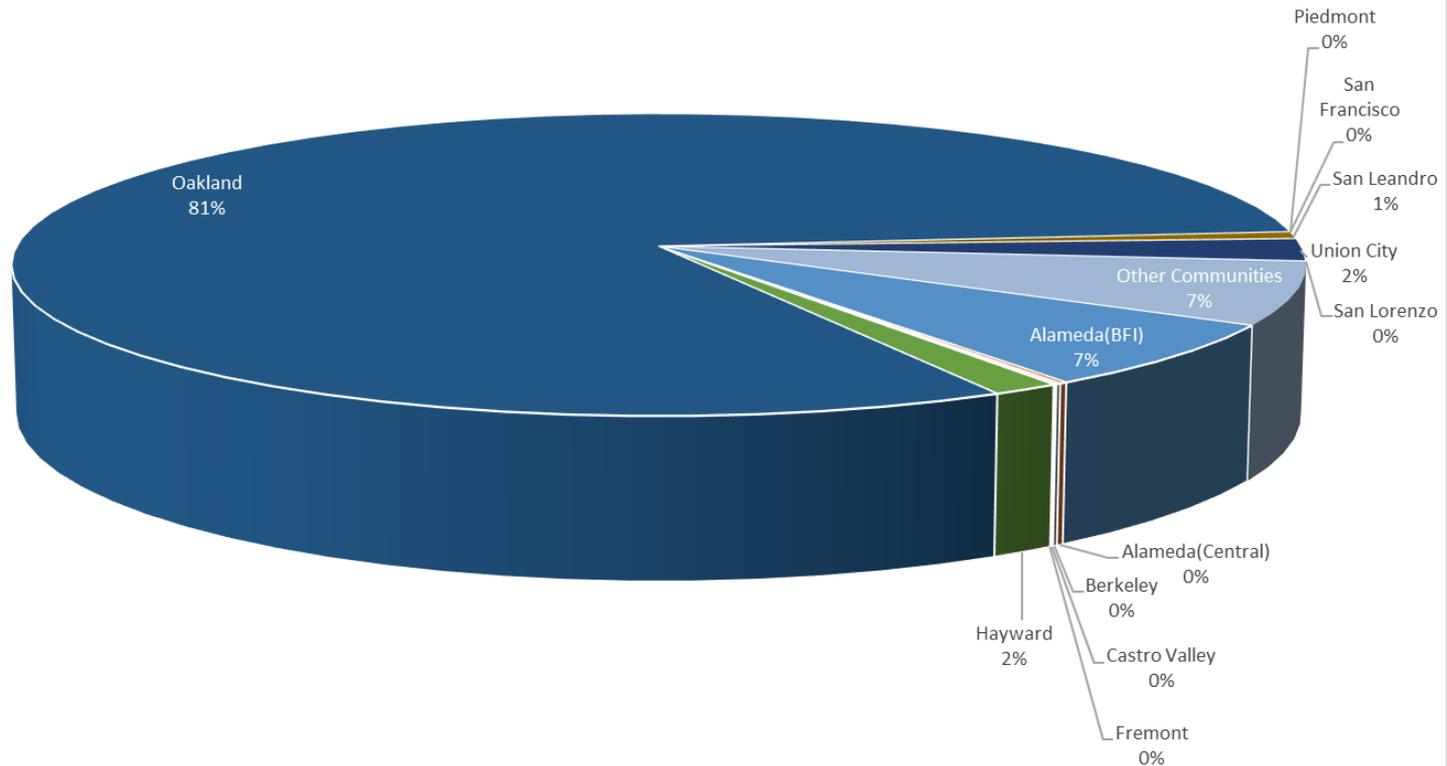
August 2018

Noise Complaints Summary by Number of Callers



Number of Complaints August 2018

Noise Complaints Summary by Number of Complaints

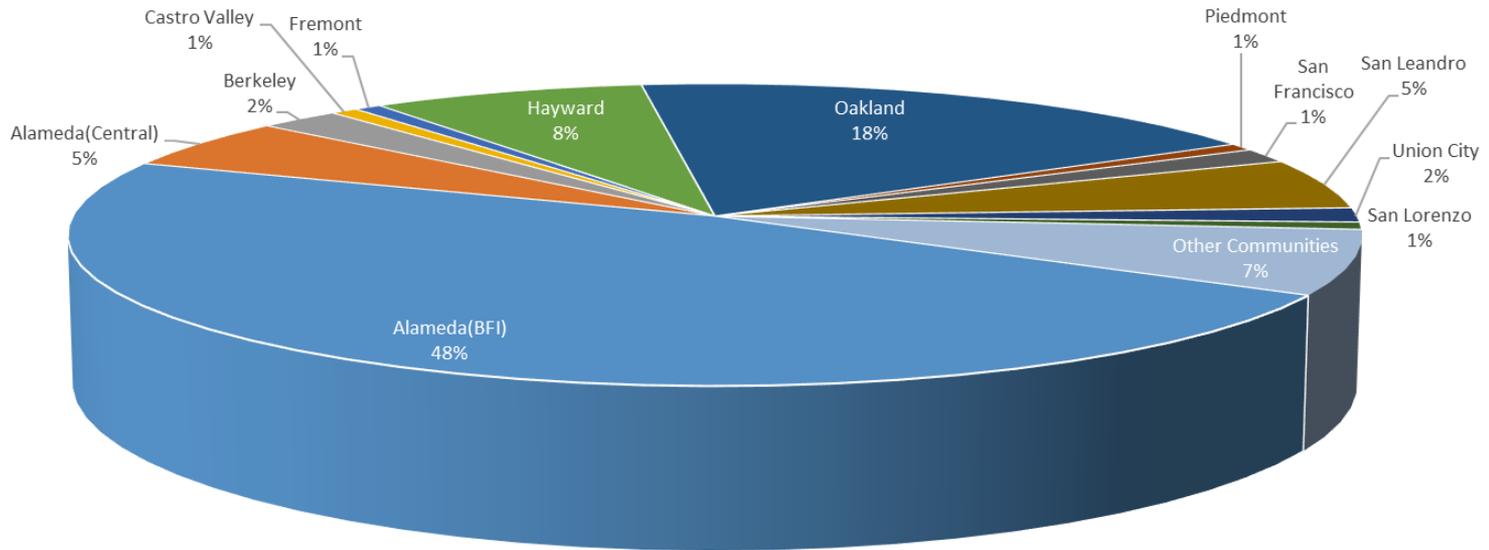


**Oakland International Airport
Noise Complaint Summary
September 2018**

Community	Callers	Complaints
Alameda(BFI)	62	262
Alameda(Central)	7	15
Berkeley	3	4
Castro Valley	1	1
Fremont	1	3
Hayward	10	124
Oakland	24	3943
Piedmont	1	1
San Francisco	2	2
San Leandro	7	24
Union City	2	991
San Lorenzo	1	1
Other Communities	9	87
Total	130	5458
Complaints by Type		
Website		527
E-mail		4791
Phone		140
Complaints by Time of Day		
Day (0700 - 1900)		1258
Evening (1900 - 2200)		691
Night (2200 - 0700)		3509
Complaints by Type of Operation		
Arrivals		4768
Departures		668
Over-flights		0
Touch & Go		22
Not Linked to an Operation		0
Complaints by Type of Aircraft		
Business Jet		296
Helicopter		7
Jet		5012
Military		0
Not Reported		1
Other		31
Propeller		61
Turbo-prop		50

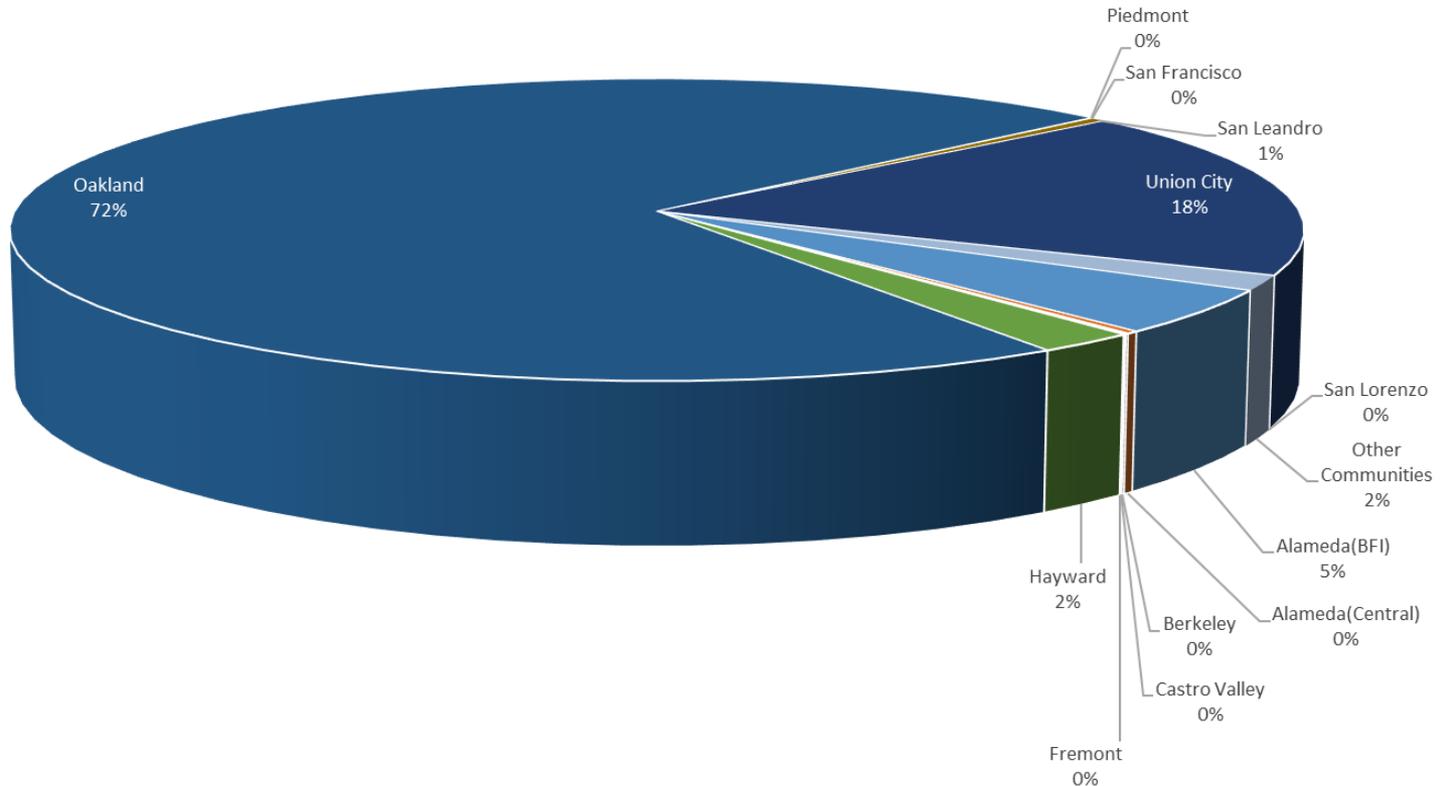
Number of Callers September 2018

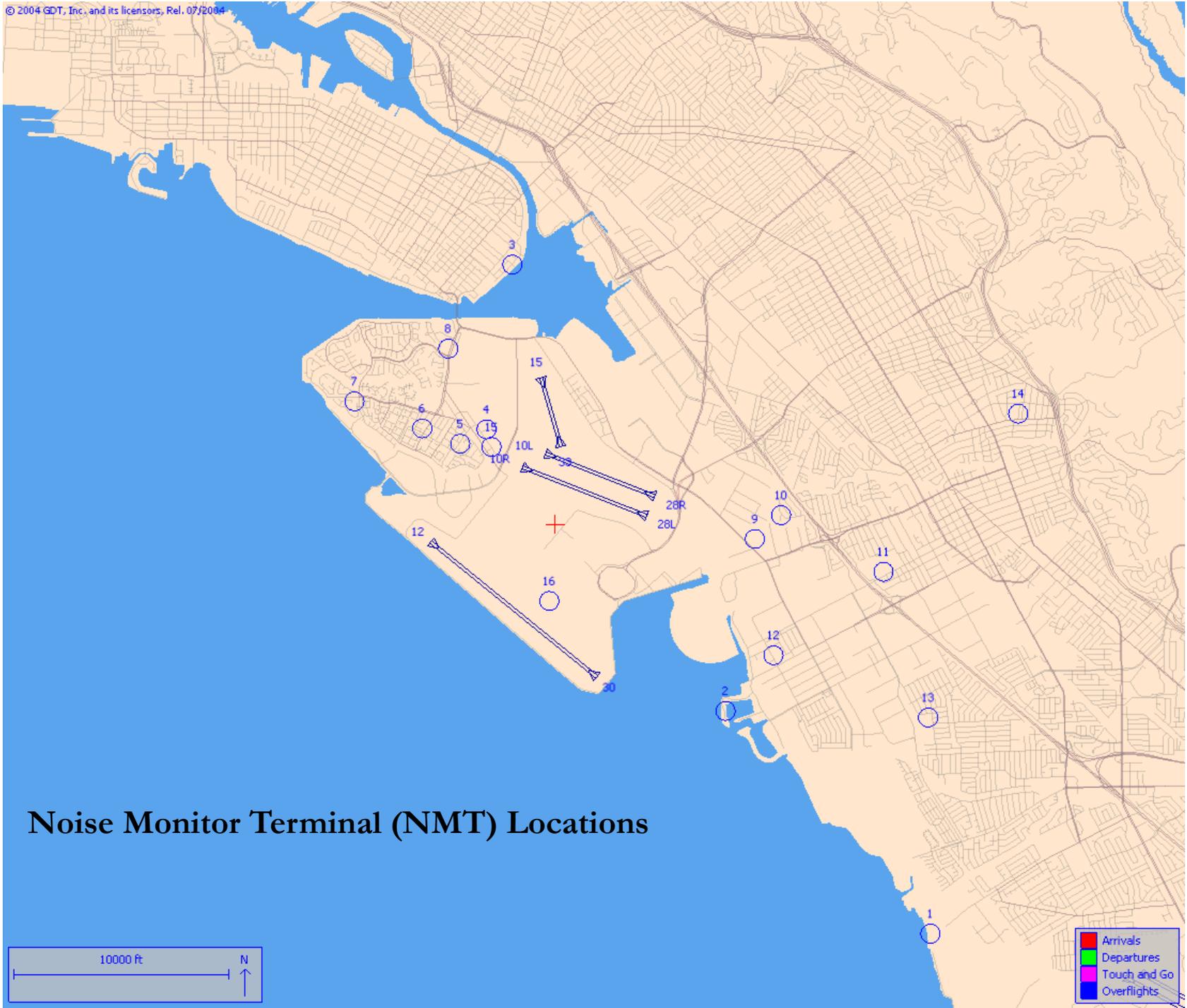
Noise Complaints Summary by Number of Callers



Number of Complaints September 2018

Noise Complaints Summary by Number of Complaints





Noise Monitor Terminal (NMT) Locations

- Arrivals
- Departures
- Touch and Go
- Overflights

