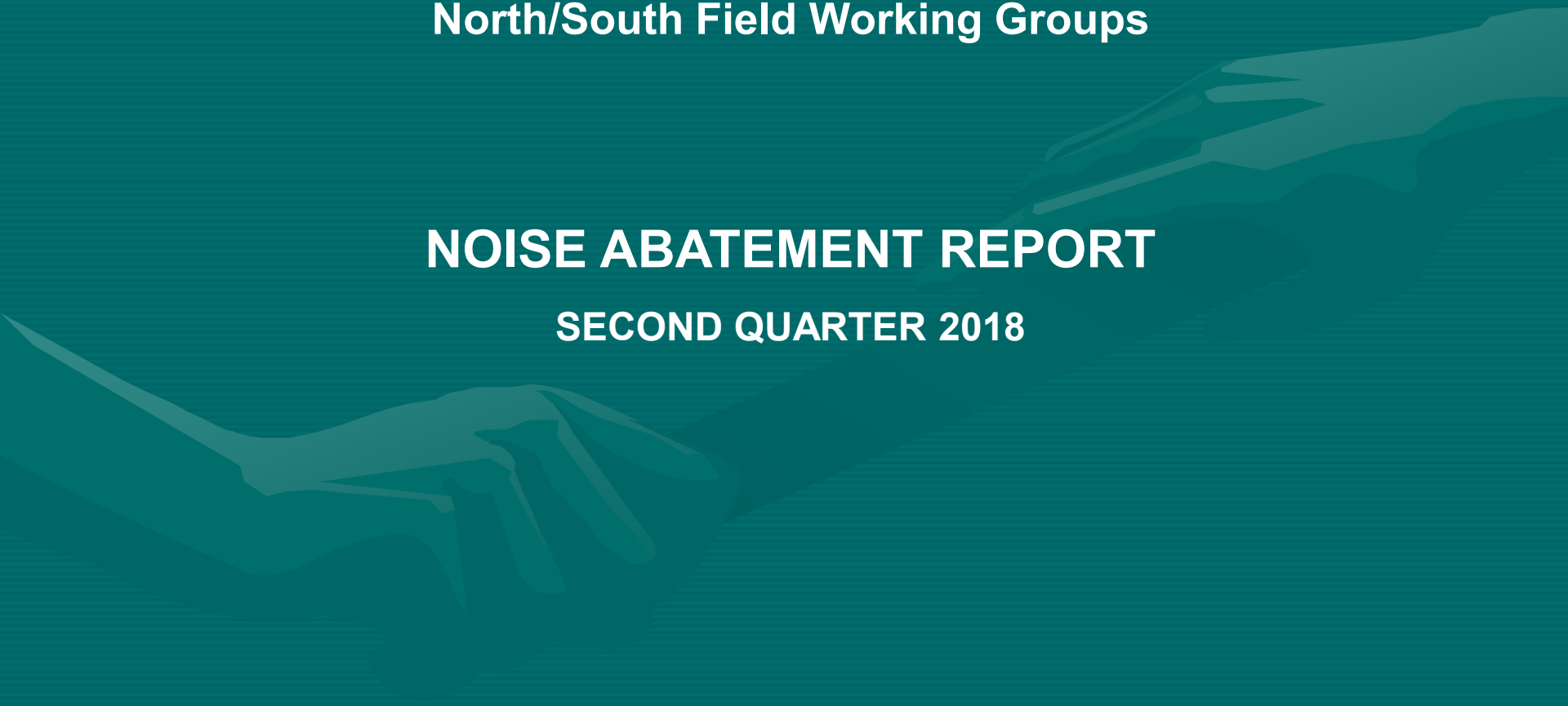


NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

SECOND QUARTER 2018



Compliance Monitoring Quarterly Summary Comparison Second Quarter 2018				
	2017Q2		2018Q2	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	90%	10%	93%	7%
Total Airport-wide Corporate Jet Departures	2,727	312	2,932	209
Runway 10R/L Jet Landing Compliance	69%	31%	88%	12%
Total Southeast Plan Corporate Jet Landings	44	20	44	6
North Field VFR Departure Compliance	97%	3%	90%	10%
Total Runways 28R/L & 33 Departures	572	18	466	50
North Field Quiet Hours Compliance	83%	17%	74%	26%
Total North Field Quiet Hours Departures	182	37	256	88
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,618	5	19,585	3
Night Time Departure Compliance	99%	1%	98%	2%
Total Runway 30 Night Turbojet Departures	3,324	27	4,041	74
Runway 12 Night Departure Compliance	83%	17%	82%	18%
Total Runway 12 Night Turbojet Departures	62	13	36	8
Runway 30 East Turn Departure Compliance	99%	1%	100%	0%
Total Runway 30 East Turn Departures	5,363	27	5,979	5
100 Degree Radial Turbojet Landing Compliance	95%	5%	99%	1%
Total 100 Degree Radial Turbojet Landings	2,337	130	1,354	11
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	7	0	8	0
Note: N/C means non-compliant. Percentage values are rounded out.				

Link to full report: http://flyquietoak.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

2018Q2
93% Compliance
(3,141 total departures)
(209 non-compliant)

2017Q2
90% Compliance
(3,039 total departures)
(312 non-compliant)

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

2018Q2

88% Compliance
(50 total landings)
(6 non-compliant)

2017Q2

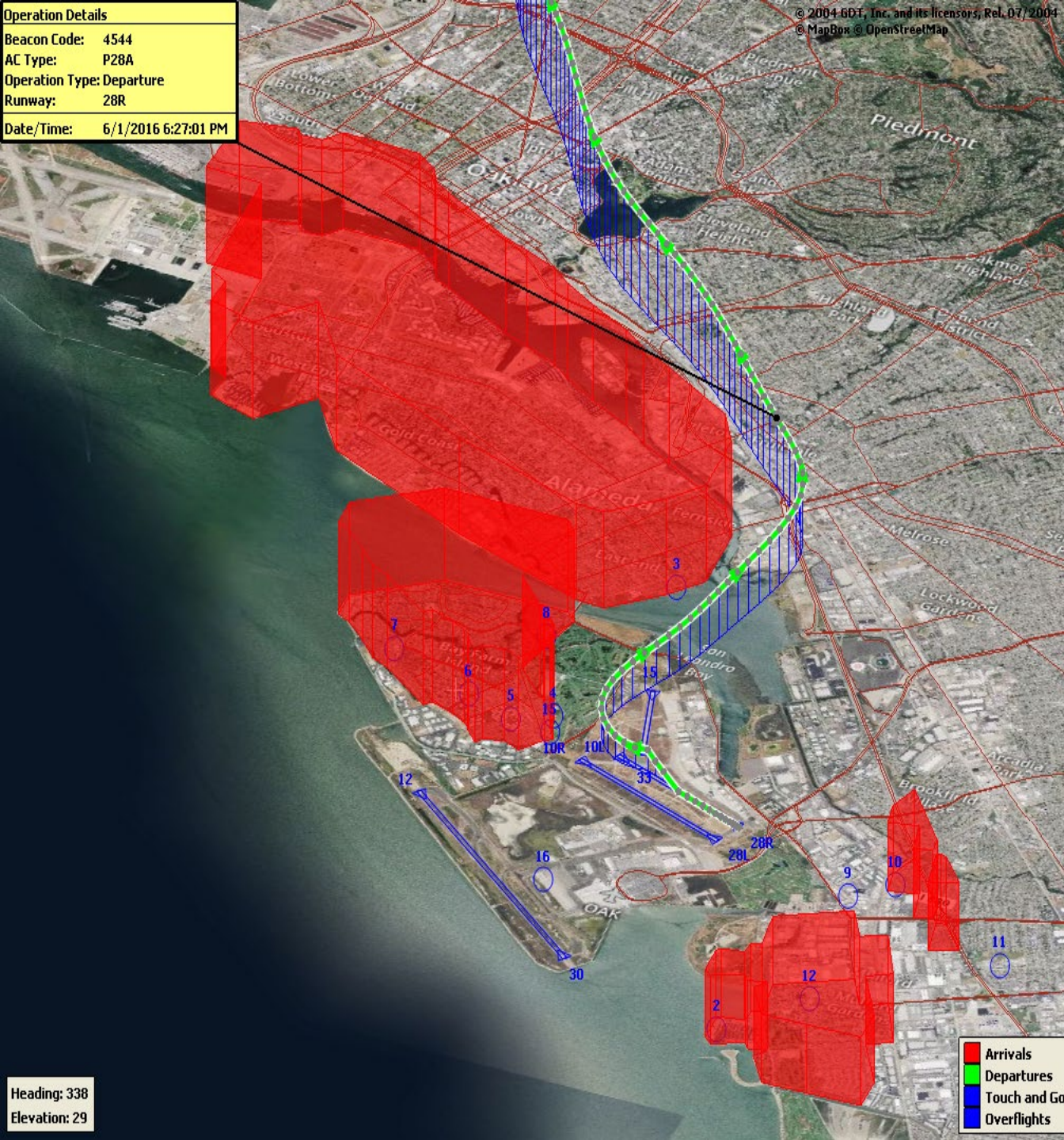
69% Compliance
(64 total landings)
(20 non-compliant)

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

2018Q2

90% Compliance
(516 total departures)
(50 non-compliant)

2017Q2

97% Compliance
(590 total departures)
(18 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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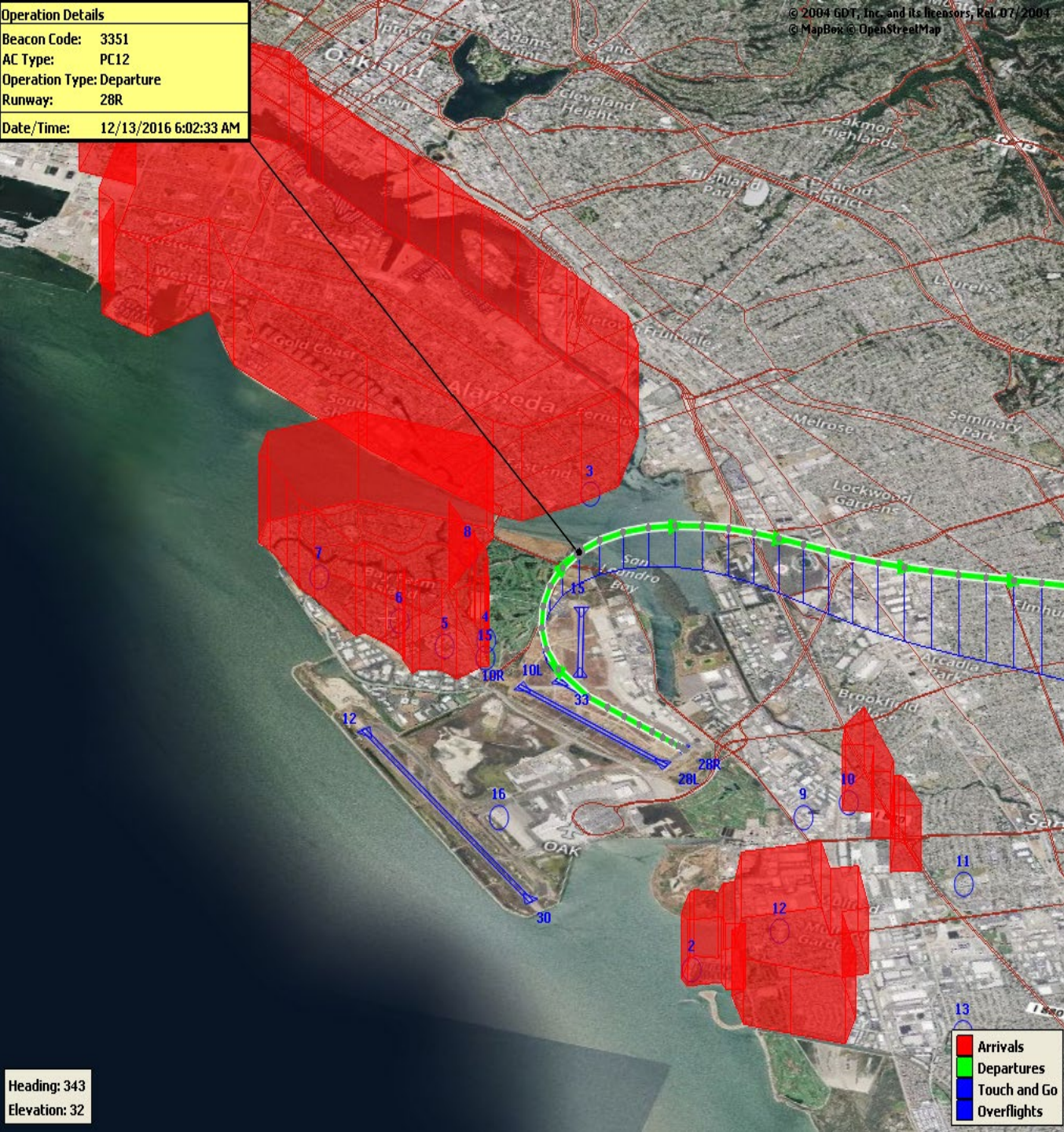
North Field Quiet Hours NAP

2018Q2
74% Compliance
(344 total departures)
(88 non-compliant)

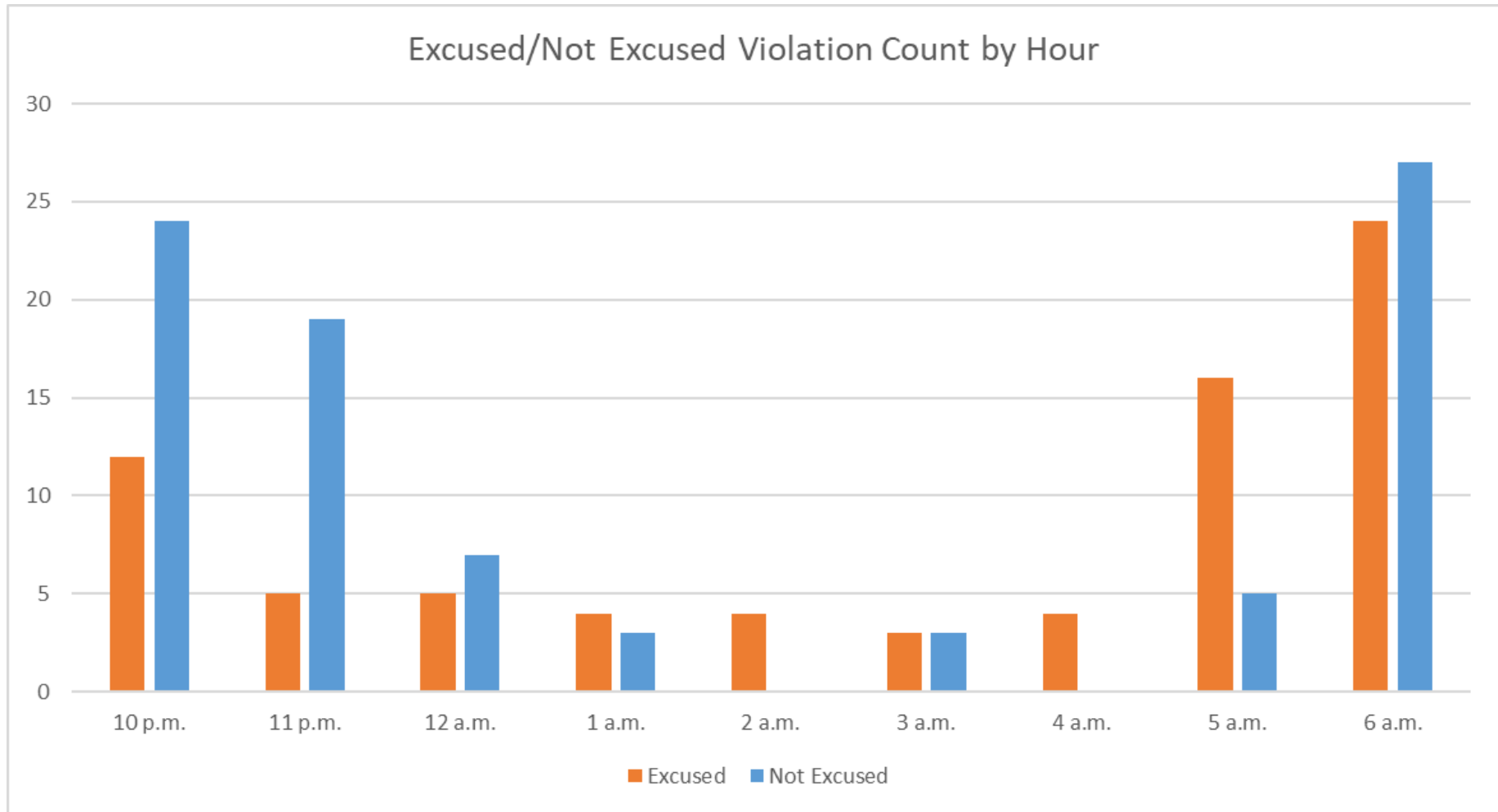
2017Q2
83% Compliance
(219 total departures)
(37 non-compliant)

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



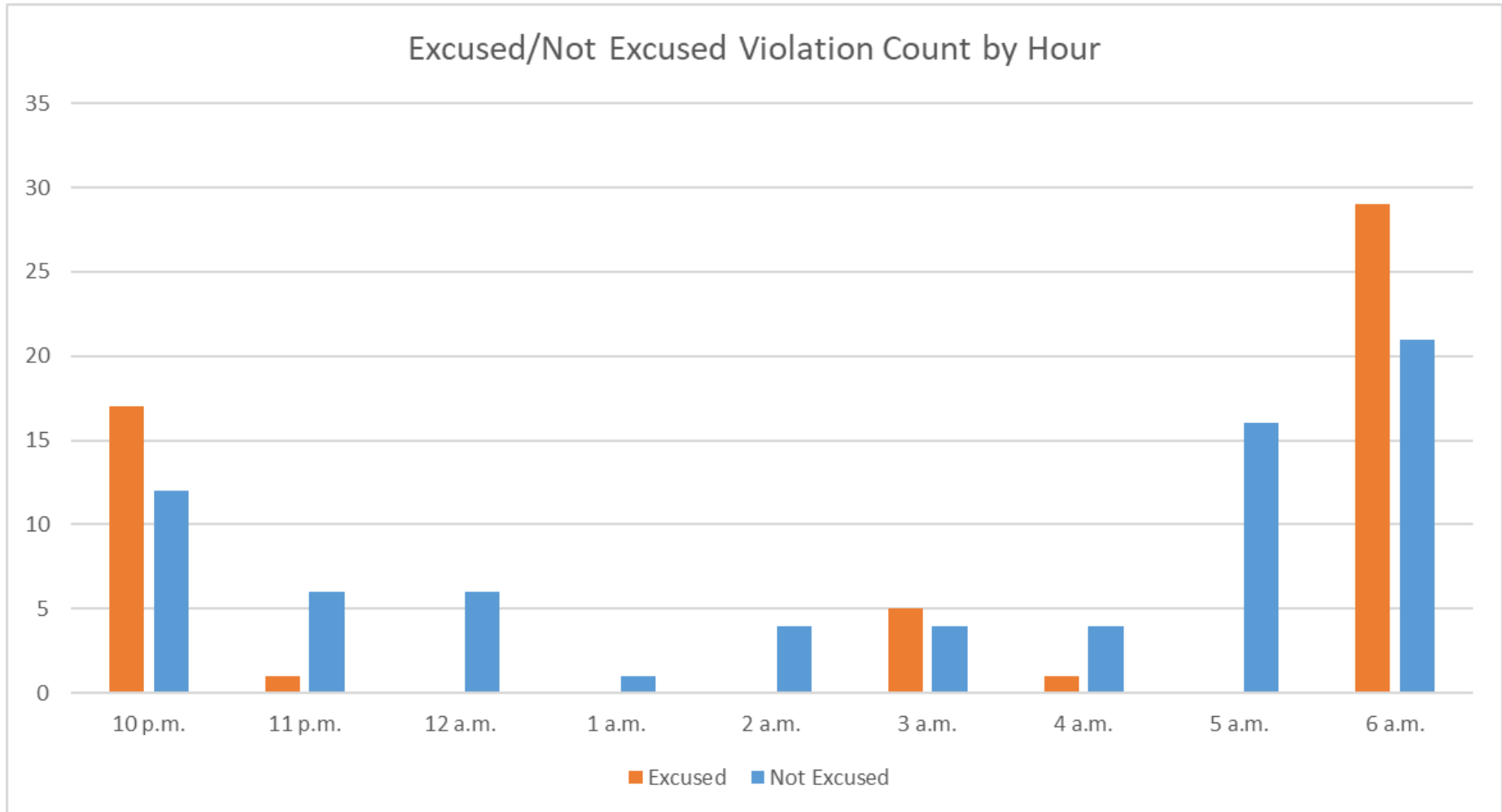
Night Time Departure NAP

2018Q2*
98% Compliance
(4,114 total departures)
(74 non-compliant)

*REBAS Gate non-compliant = 65

2017Q2
99% Compliance
(3,351 total departures)
(27 non-compliant)

Night Time NAP Non-Compliant 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

2018Q2

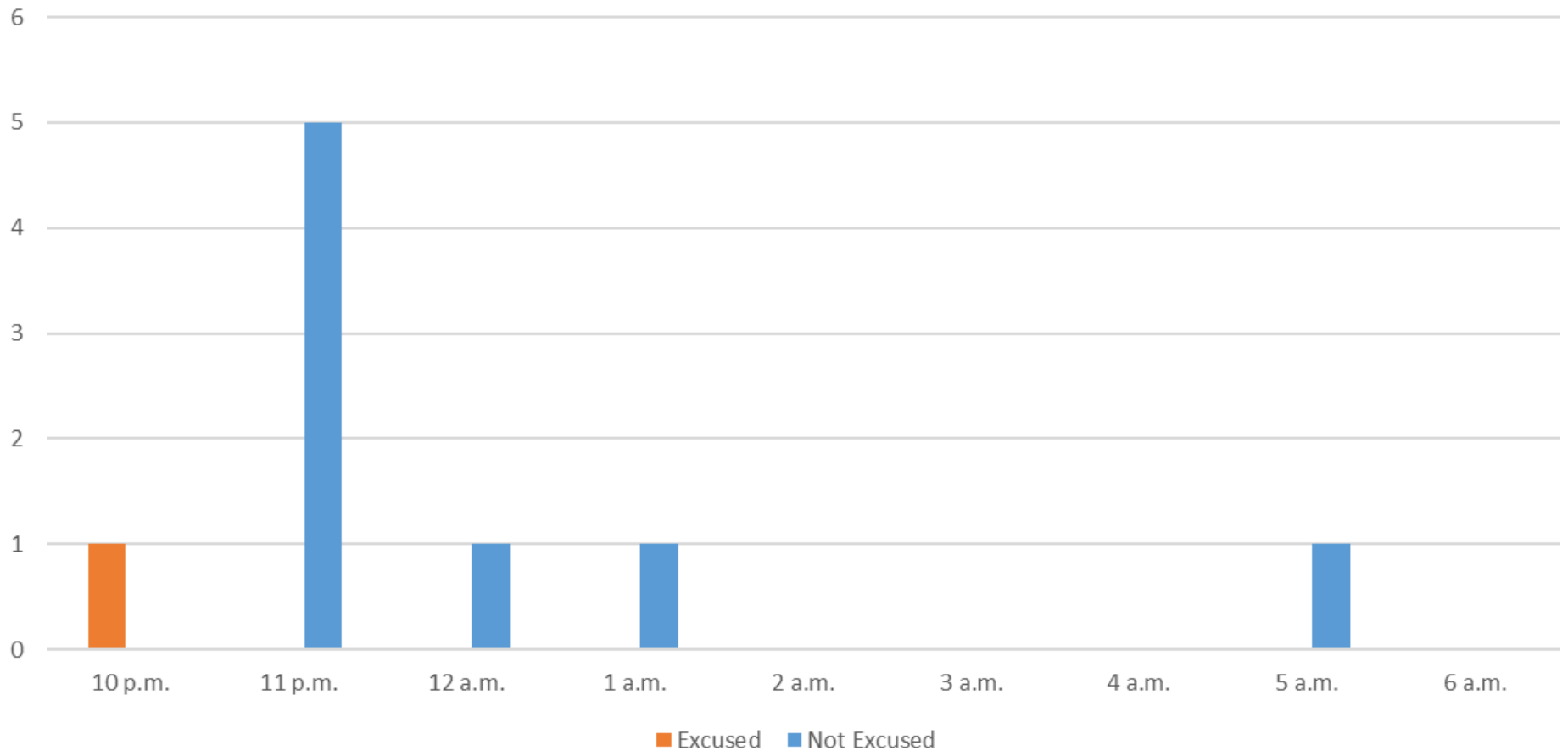
82% Compliance
(44 total departures)
(8 non-compliant)

2017Q2

83% Compliance
(75 total departures)
(13 non-compliant)

Runway 12 Night Departure Non-Compliant Count by Hour

Excused/Not Excused Violation Count by Hour



Runway 30 Bay Farm Right Turn NAP

2018Q2
100% Compliance
(19,588 total departures)
(3 non-compliant)

2017Q2
100% Compliance
(17,623 total departures)
(5 non-compliant)

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

Runway 30 East Turn NAP

2018Q2
100% Compliance
(5,984 total departures)
(5 non-compliant)

***2018Q2 Excused Departures = 98**

2017Q2
99% Compliance
(5,390 total departures)
(27 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

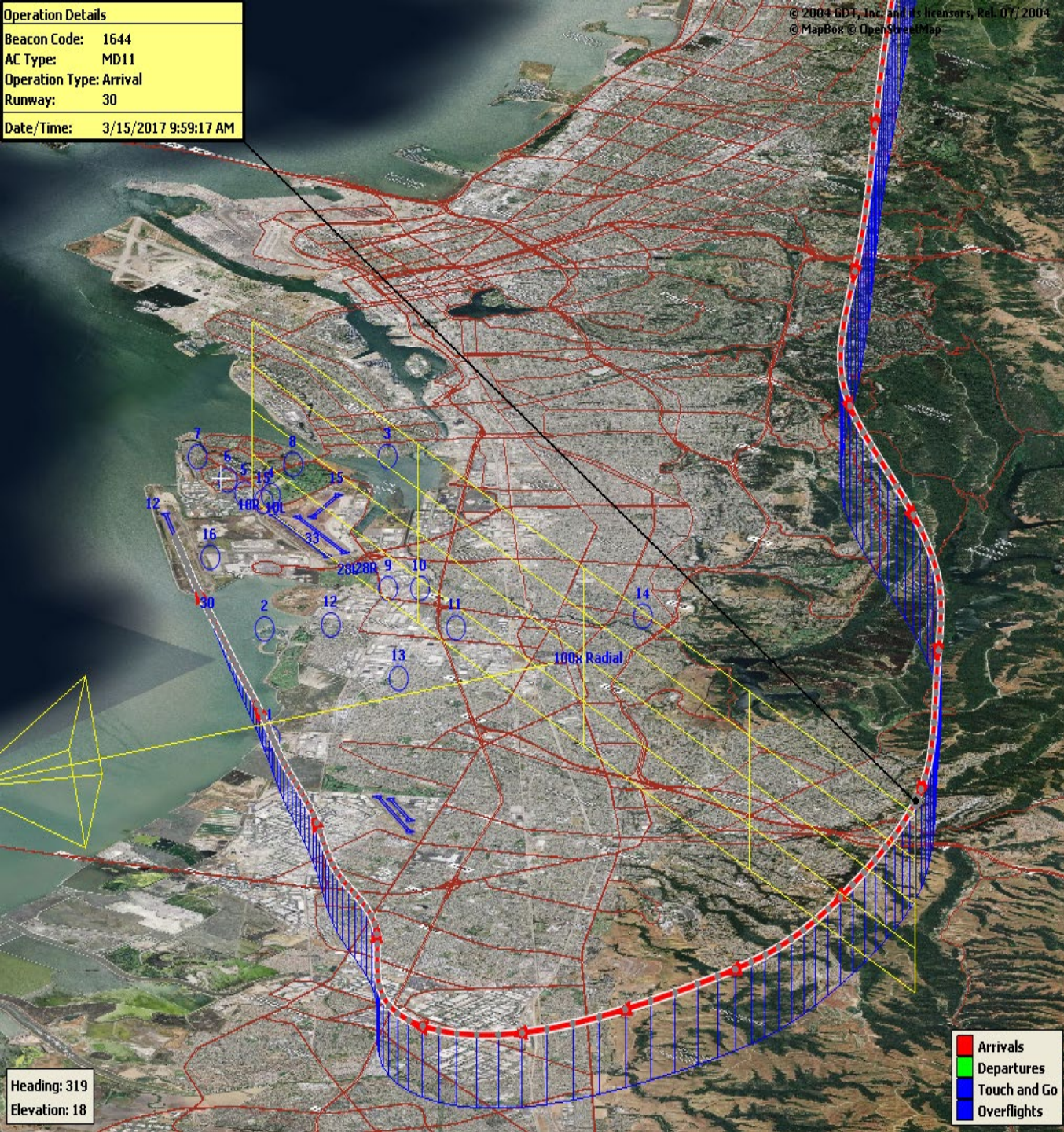
Operation Details
Beacon Code: 1644
AC Type: MD11
Operation Type: Arrival
Runway: 30
Date/Time: 3/15/2017 9:59:17 AM

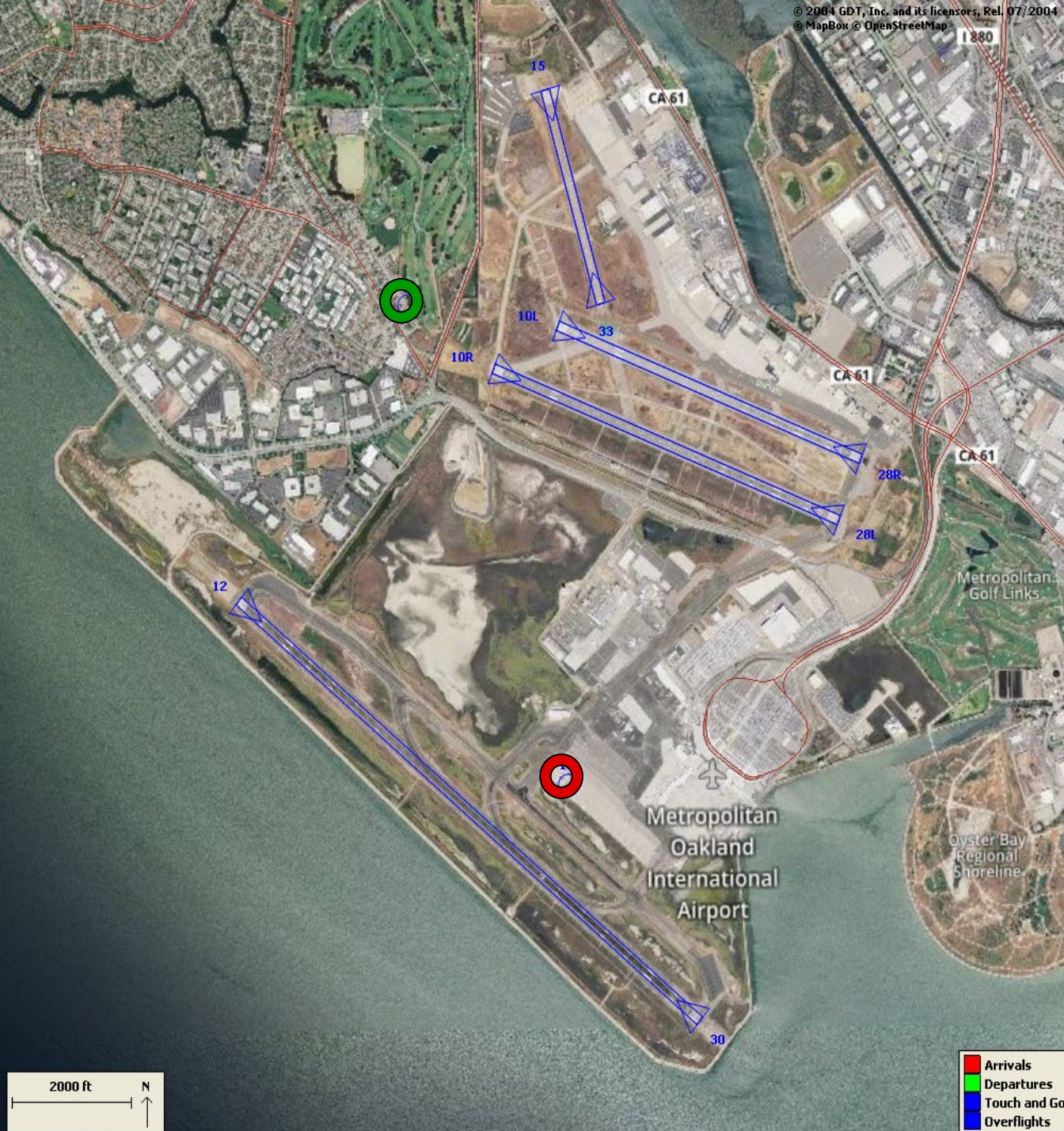
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100 Degree Radial At 3,000 ft. NAP

2018Q2
99% Compliance
(1,365 total landings)
(11 non-compliant)

2017Q2
95% Compliance
(2,467 total landings)
(130 non-compliant)





Engine Run-up NAP

2018Q2

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

2017Q2

**100% Compliance
(7 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 = 171

Second 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	10	3	0.0	0.5%	1	0.0	0.2%	1	0.0	0.2%	15
3	34	3	0.0	0.5%	1	0.0	0.2%	0	0.0	0.0%	38
4	44	41	0.5	7.2%	26	0.3	4.6%	28	0.3	4.9%	139
5	46	23	0.3	4.1%	24	0.3	4.2%	35	0.4	6.2%	128
6	19	12	0.1	2.1%	13	0.1	2.3%	28	0.3	4.9%	72
7	17	14	0.2	2.5%	25	0.3	4.4%	3	0.0	0.5%	59
8	24	18	0.2	3.2%	7	0.1	1.2%	0	0.0	0.0%	49
9	5	4	0.0	0.7%	1	0.0	0.2%	2	0.0	0.4%	12
10	19	1	0.0	0.2%	1	0.0	0.2%	1	0.0	0.2%	22
11	0	0	0.0	0.0%	1	0.0	0.2%	1	0.0	0.2%	2
12	4	4	0.0	0.7%	0	0.0	0.0%	0	0.0	0.0%	8
13	3	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	4
14	6	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	6
All NMTs	231	124	1	0	100	1	0	99	1	0	554

*SEL > 90 dBA increase due to commercial jet departures from the North Field during Monday Morning closure. Runway Overlay Project

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 157

Second 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	34	3	0.0	1.3%	1	0.0	0.4%	0	0.0	0.0%	38
4	44	41	0.5	17.2%	26	0.3	10.9%	28	0.3	11.7%	139
5	46	23	0.3	9.6%	24	0.3	10.0%	35	0.4	14.6%	128
6	19	12	0.1	5.0%	13	0.1	5.4%	28	0.3	11.7%	72
7	17	14	0.2	5.9%	25	0.3	10.5%	3	0.0	1.3%	59
8	24	18	0.2	7.5%	7	0.1	2.9%	0	0.0	0.0%	49
Total	184	111	1.2		96	1.1		94	1.0		485

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 14

Second 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	10	3	0.0	0.9%	1	0.0	0.3%	1	0.0	0.3%	15
9	5	4	0.0	1.2%	1	0.0	0.3%	2	0.0	0.6%	12
10	19	1	0.0	0.3%	1	0.0	0.3%	1	0.0	0.3%	22
11	0	0	0.0	0.0%	1	0.0	0.3%	1	0.0	0.3%	2
12	4	4	0.0	1.2%	0	0.0	0.0%	0	0.0	0.0%	8
13	3	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	4
14	6	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	6
Total	47	13	0.1		4	0.0		5	0.1		69

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Second 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	
Second Quarter 2018 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	172	57	11	66	74	13
DC10/MD10	70	23	12	67	76	21
MD11	210	70	47	65	73	13
A306	106	35	9	65	73	15
B757	177	59	17	65	74	14
B77L	76	25	5	65	75	19
Difference [A-B]						
DC10/MD10		-64	-20	-2	-2	-1
MD11		38	34	-5	-6	-11
A306		-32	-12	-2	-4	-10

(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)
Second 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
Second Quarter 2017 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	128	43	4	67	21
DC10/MD10	65	22	8	66	16
MD11	196	65	56	66	16
A306	111	37	10	66	25
B757	184	61	16	66	19
B77L	72	24	9	69	24
Difference [A-B]					
DC10/MD10		-65	-24	-3	-6
MD11		33	43	-4	-8
A306		-30	-11	-1	0

(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)

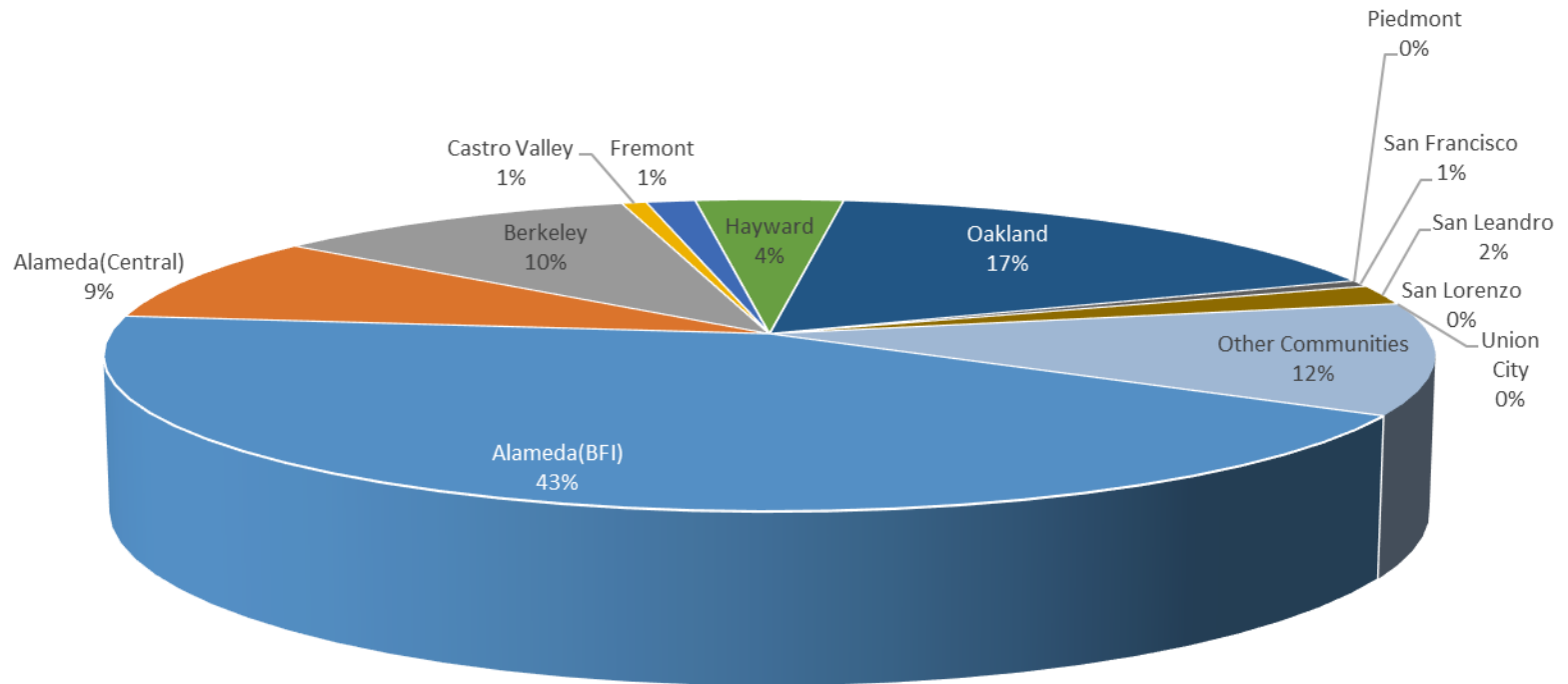
**Oakland International Airport
Noise Complaint Summary
April 2018**

Community	Callers	Complaints
Alameda(BFI)	64	410
Alameda(Central)	13	63
Berkeley	15	29
Castro Valley	1	9
Fremont	2	2
Hayw ard	6	148
Oakland	25	3895
Piedmont	0	0
San Francisco	1	67
San Leandro	3	7
Union City	0	0
San Lorenzo	0	0
Other Communities	17	672
Total	147	5302
Complaints by Type		
Website	1375	
E-mail	3850	
Phone	77	
Complaints by Time of Day		
Day (0700 - 1900)	1950	
Evening (1900 - 2200)	771	
Night (2200 - 0700)	2581	
Complaints by Type of Operation		
Arrivals	3840	
Departures	1452	
Over-flights	1	
Touch & Go	9	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	393	
Helicopter	31	
Jet	4153	
Military	1	
Not Reported	0	
Other	115	
Propeller	370	
Turbo-prop	239	

Number of Callers

April 2018

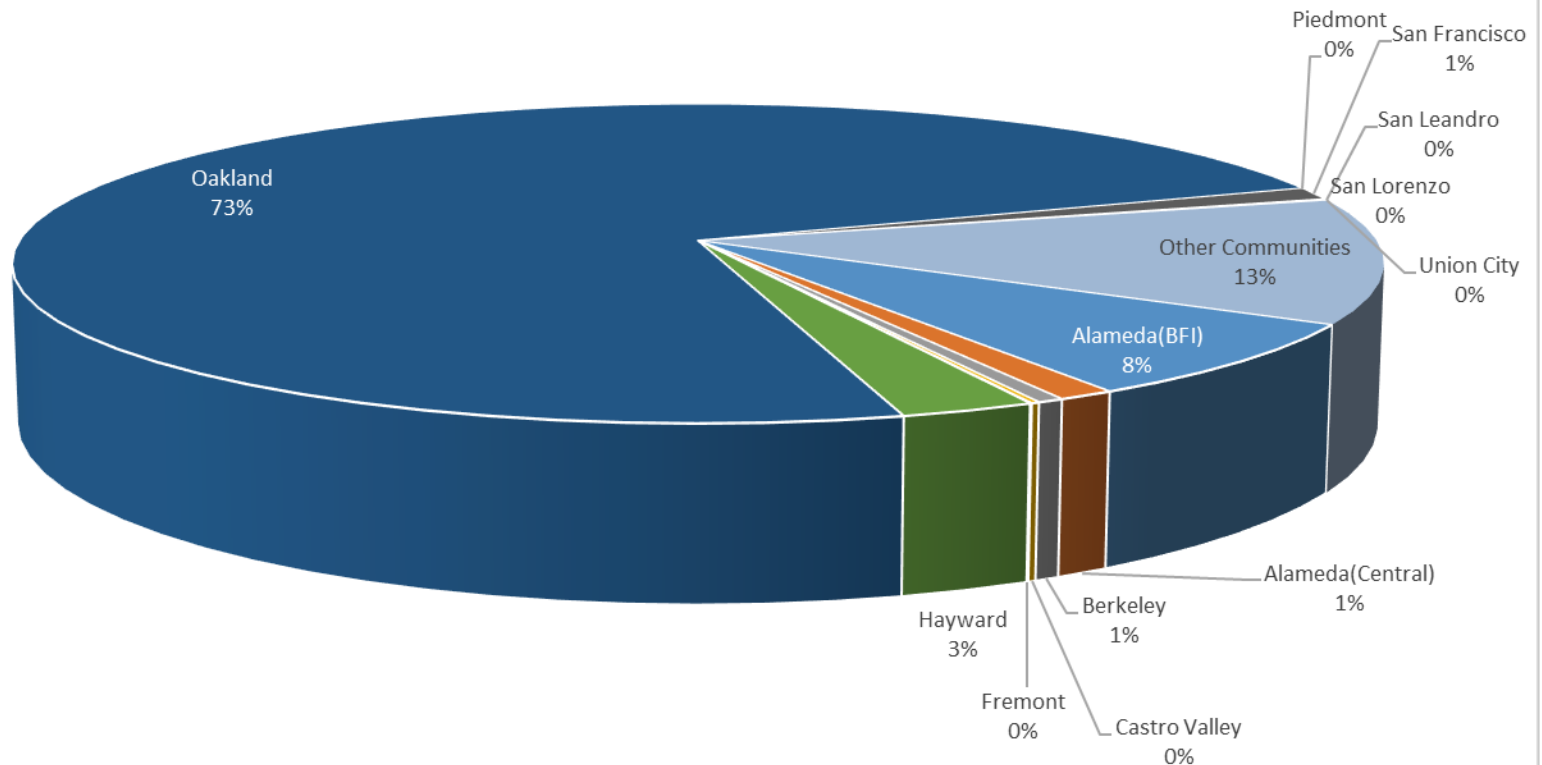
Noise Complaints Summary by Number of Callers



Number of Complaints

April 2018

Noise Complaints Summary by Number of Complaints



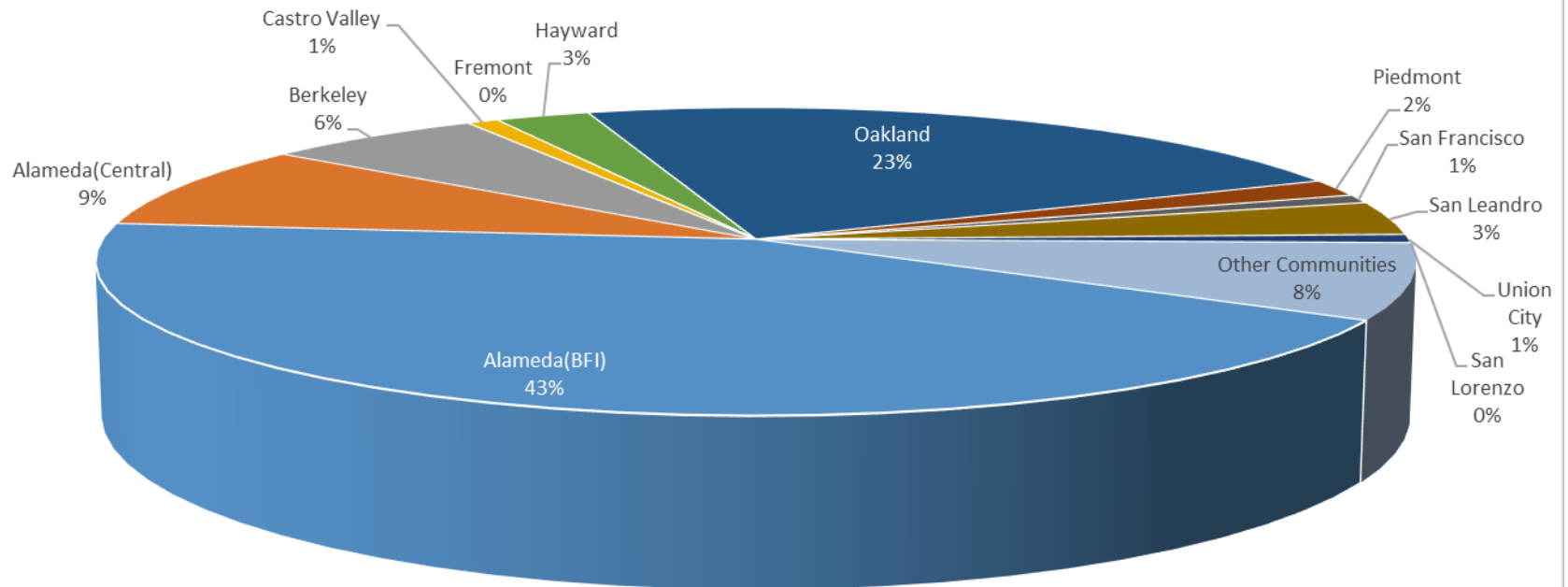
**Oakland International Airport
Noise Complaint Summary
May 2018**

Community	Callers	Complaints
Alameda(BFI)	49	493
Alameda(Central)	10	38
Berkeley	7	50
Castro Valley	1	5
Fremont	0	0
Hayw ard	3	66
Oakland	26	4082
Piedmont	2	4
San Francisco	1	301
San Leandro	4	11
Union City	1	1
San Lorenzo	0	0
Other Communities	9	398
Total	113	5449
Complaints by Type		
Website	1356	
E-mail	3959	
Phone	134	
Complaints by Time of Day		
Day (0700 - 1900)	1719	
Evening (1900 - 2200)	789	
Night (2200 - 0700)	2941	
Complaints by Type of Operation		
Arrivals	3678	
Departures	1760	
Over-flights	10	
Touch & Go	1	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	463	
Helicopter	31	
Jet	4649	
Military	0	
Not Reported	0	
Other	15	
Propeller	189	
Turbo-prop	102	

Number of Callers

May 2018

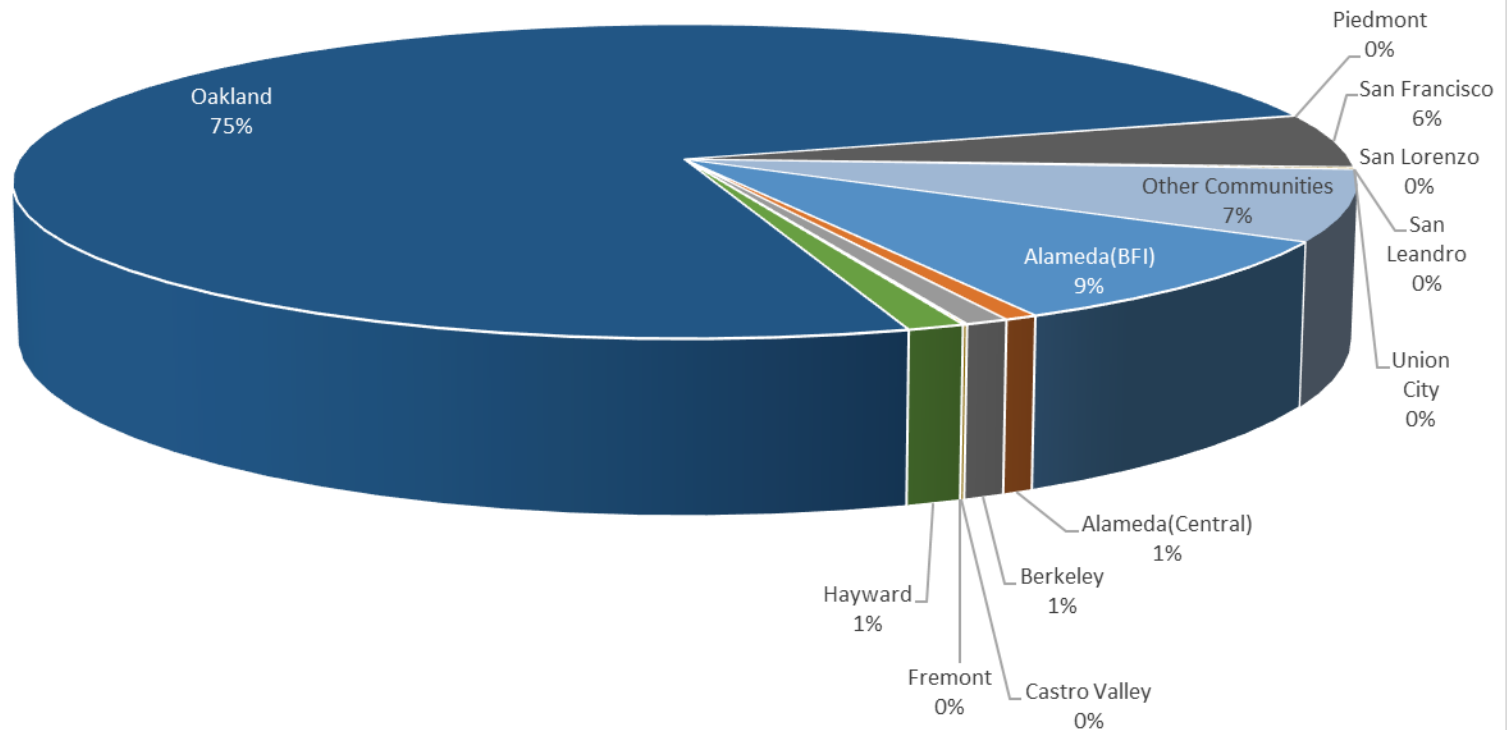
Noise Complaints Summary by Number of Callers



Number of Complaints

May 2018

Noise Complaints Summary by Number of Complaints



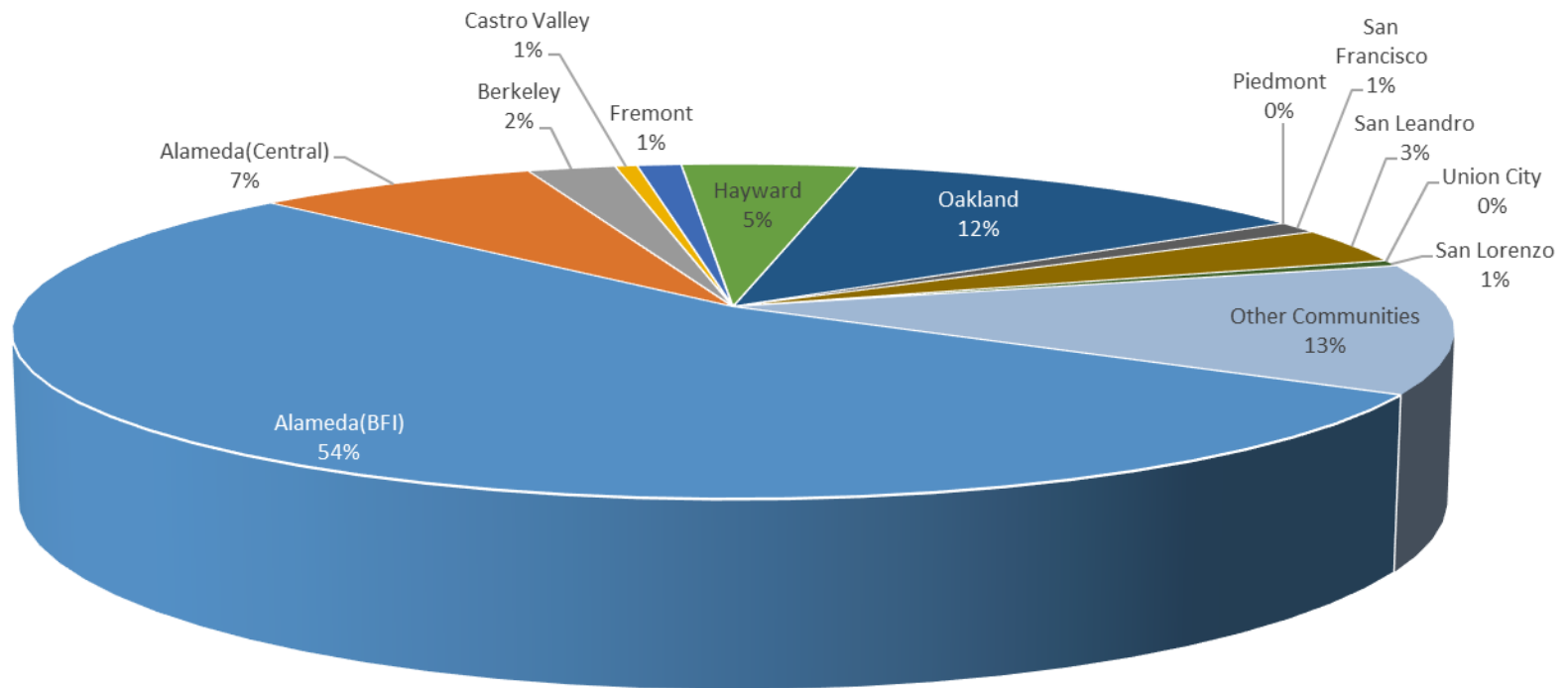
**Oakland International Airport
Noise Complaint Summary
June 2018**

Community	Callers	Complaints
Alameda(BFI)	95	1160
Alameda(Central)	13	69
Berkeley	4	8
Castro Valley	1	1
Fremont	2	2
Hayw ard	8	118
Oakland	22	3579
Piedmont	0	0
San Francisco	2	30
San Leandro	6	74
Union City	0	0
San Lorenzo	1	3
Other Communities	22	733
Total	176	5777
Complaints by Type		
Website	1531	
E-mail	4011	
Phone	235	
Complaints by Time of Day		
Day (0700 - 1900)	1885	
Evening (1900 - 2200)	260	
Night (2200 - 0700)	3632	
Complaints by Type of Operation		
Arrivals	3465	
Departures	2287	
Over-flights	20	
Touch & Go	5	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	312	
Helicopter	23	
Jet	5089	
Military	3	
Not Reported	0	
Other	53	
Propeller	232	
Turbo-prop	65	

Number of Callers

June 2018

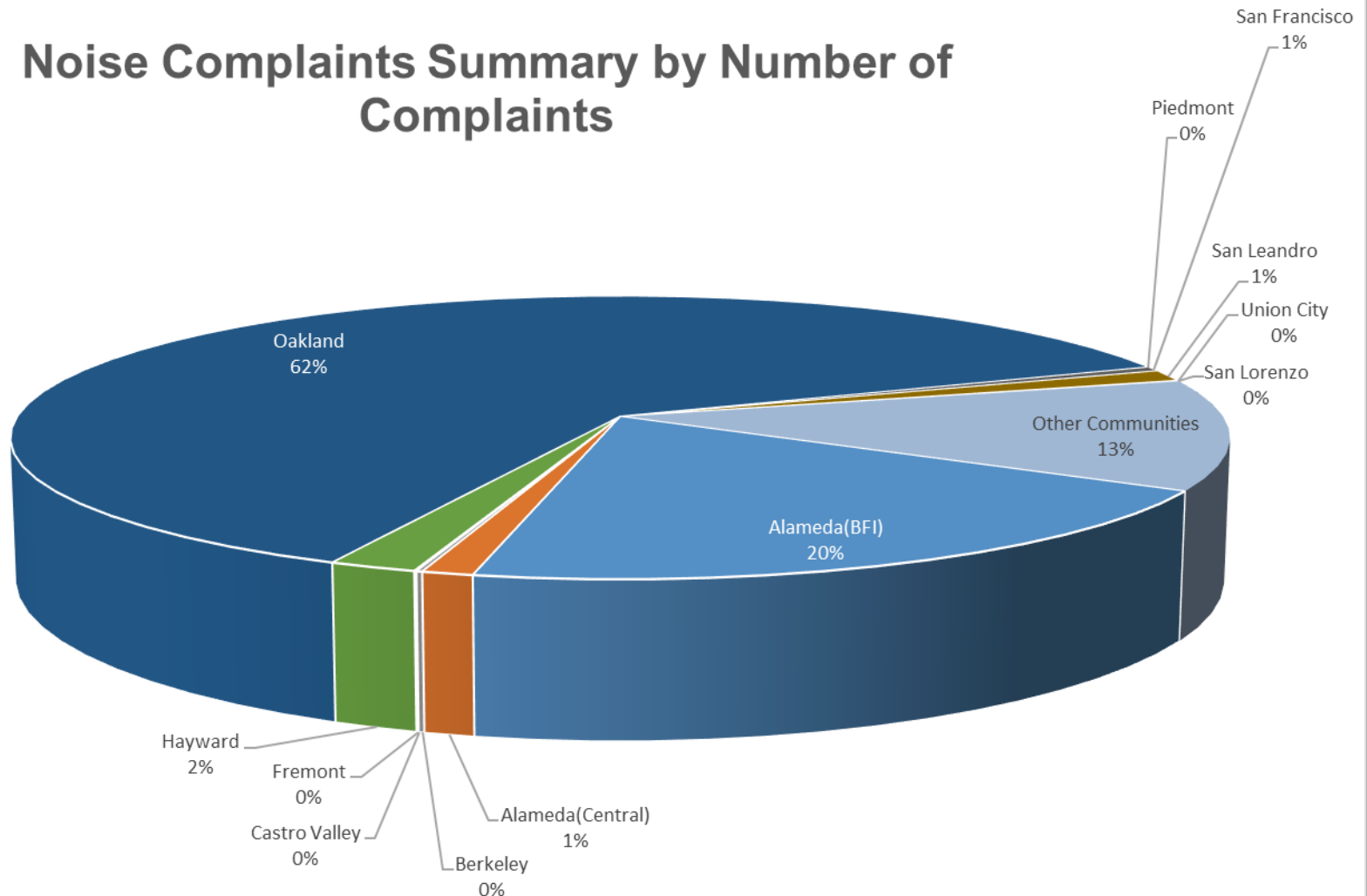
Noise Complaints Summary by Number of Callers

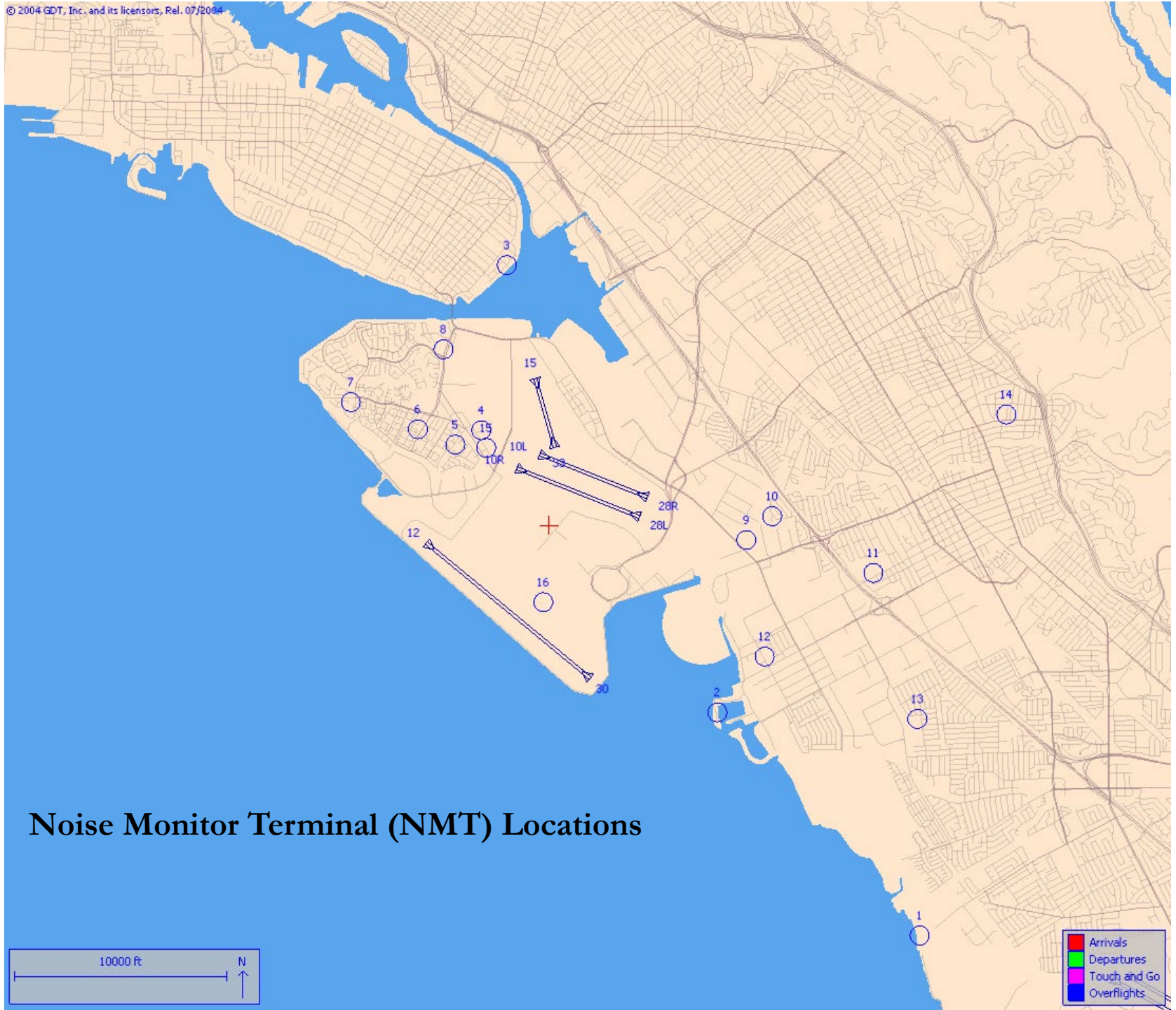


Number of Complaints

June 2018

Noise Complaints Summary by Number of Complaints





Noise Monitor Terminal (NMT) Locations