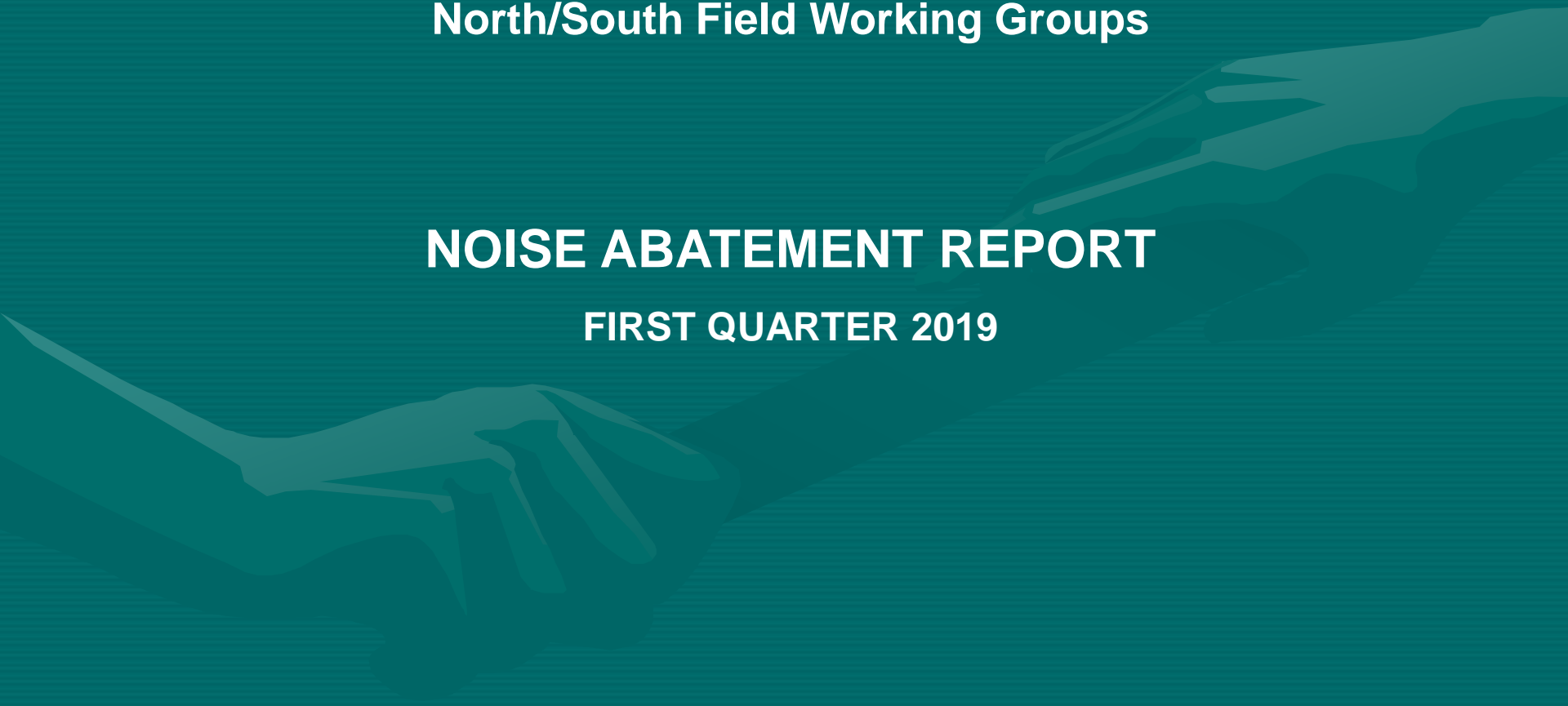


NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

FIRST QUARTER 2019



Compliance Monitoring Quarterly Summary Comparison First Quarter 2019				
	2018Q1		2019Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	94%	6%	97%	3%
Total Airport-wide Corporate Jet Departures	3,141	199	3,461	118
Runway 10R/L Jet Landing Compliance	68%	32%	74%	26%
Total Southeast Plan Corporate Jet Landings	189	88	688	241
North Field VFR Departure Compliance	93%	7%	94%	6%
Total Runways 28R/L & 33 Departures	362	28	221	13
North Field Quiet Hours Compliance	80%	20%	60%	40%
Total North Field Quiet Hours Departures	211	52	144	98
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,067	2	15,343	6
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	3,040	32	2,811	42
Runway 12 Night Departure Compliance	99%	1%	93%	7%
Total Runway 12 Night Turbojet Departures	187	1	609	46
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	4,959	3	4,289	12
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	1%
Total 100 Degree Radial Turbojet Landings	2,578	14	1,148	7
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	14	0	14	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

2019Q1
97% Compliance
(3,579 total departures)
(118 non-compliant)

2018Q1
94% Compliance
(3,340 total departures)
(199 non-compliant)

Heading: 325
Elevation: 15

■ Arrivals
■ Departures
■ Touch and Go
■ Overflights

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

2019Q1

74% Compliance
(929 total landings)
(241 non-compliant)

2018Q1

68% Compliance
(277 total landings)
(88 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

2019Q1

94% Compliance
(234 total departures)
(13 non-compliant)

2018Q1

93% Compliance
(390 total departures)
(28 non-compliant)

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

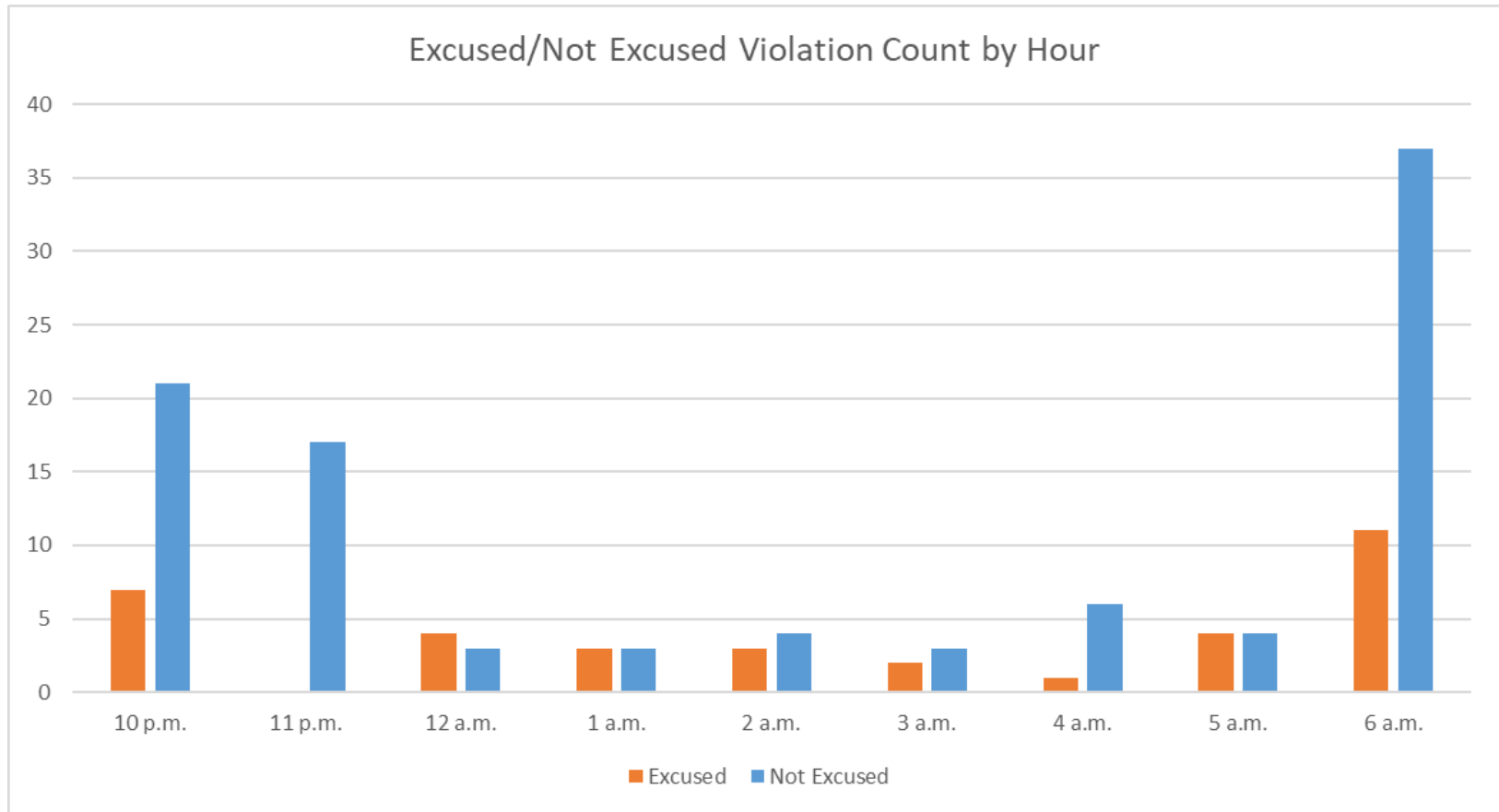
2019Q1
60% Compliance
(242 total departures)
(98 non-compliant)

2018Q1
80% Compliance
(263 total departures)
(52 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 10:16:59 PM



Night Time Departure NAP

2019Q1

99% Compliance
(2,853 total departures)
(42 non-compliant)

*REBAS Gate non-compliant = 41

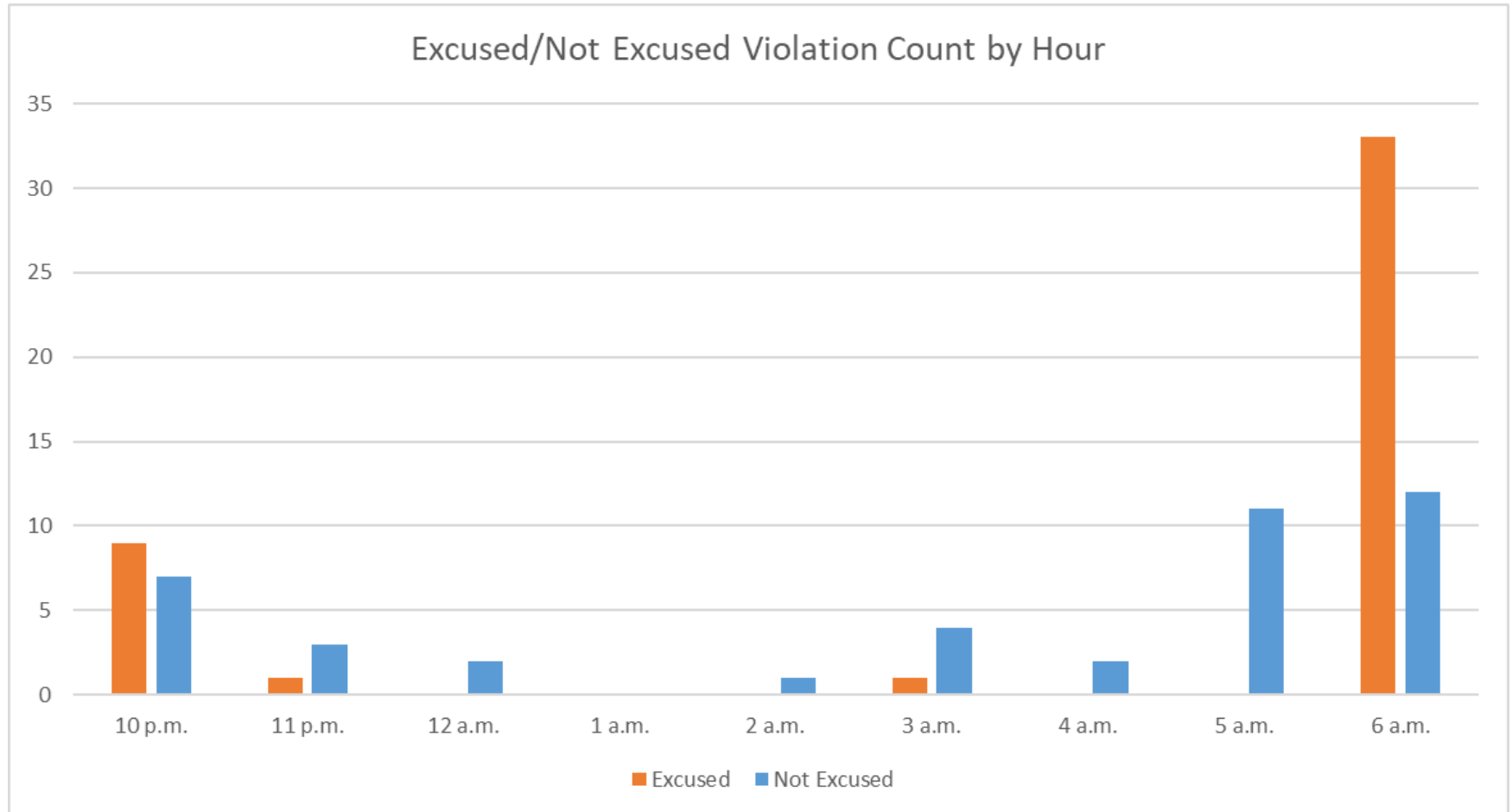
2018Q1

99% Compliance
(3,072 total departures)
(32 non-compliant)

Heading: 349
Elevation: 59

Arrivals
Departures
Touch and Go
Overflights

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

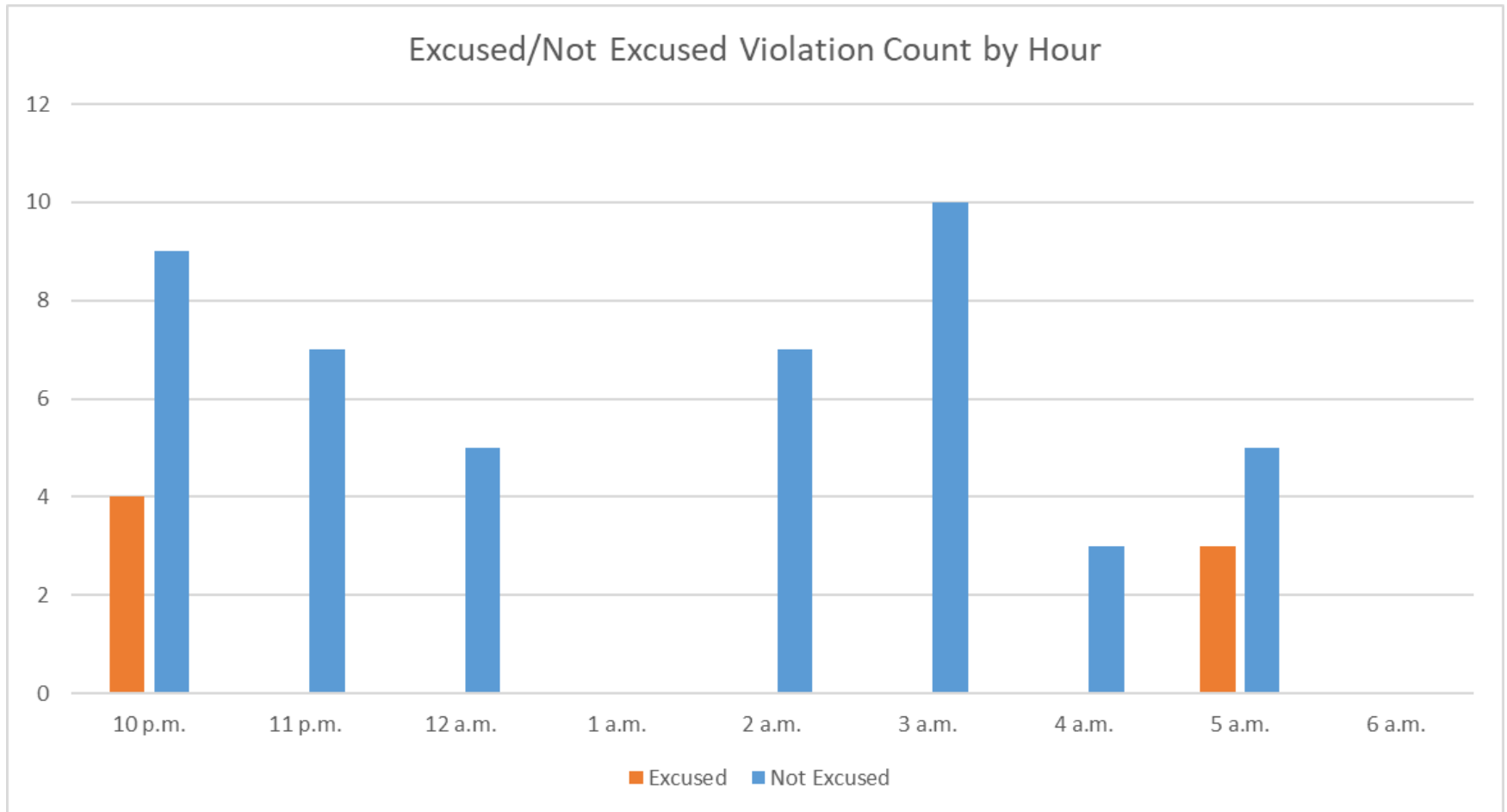


Runway 12 Night Departure NAP

2019Q1
93% Compliance
(655 total departures)
(46 non-compliant)

2018Q1
99% Compliance
(188 total departures)
(1 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

2019Q1
100% Compliance
(15,349 total departures)
(6 non-compliant)

2018Q1
100% Compliance
(17,069 total departures)
(2 non-compliant)

Heading: 299
Elevation: 36



Arrivals
Departures
Touch and Go
Overflights

Runway 30 East Turn NAP

2019Q1
100% Compliance
(4,301 total departures)
(12 non-compliant)

*2019Q1 Excused Departures = 48

2018Q1
100% Compliance
(4,962 total departures)
(3 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



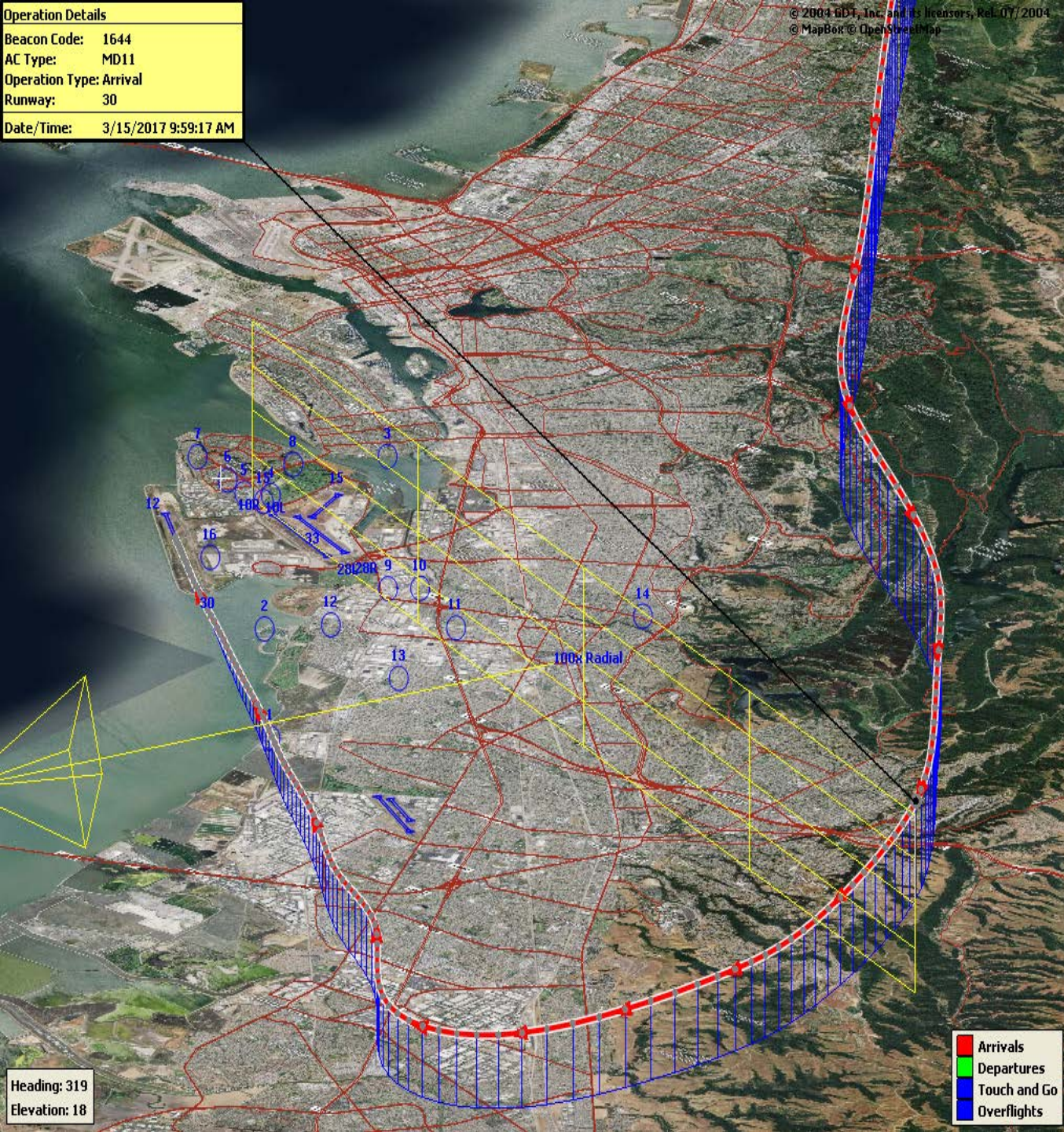
Operation Details
Beacon Code: 1644
AC Type: MD11
Operation Type: Arrival
Runway: 30
Date/Time: 3/15/2017 9:59:17 AM

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100 Degree Radial At 3,000 ft. NAP

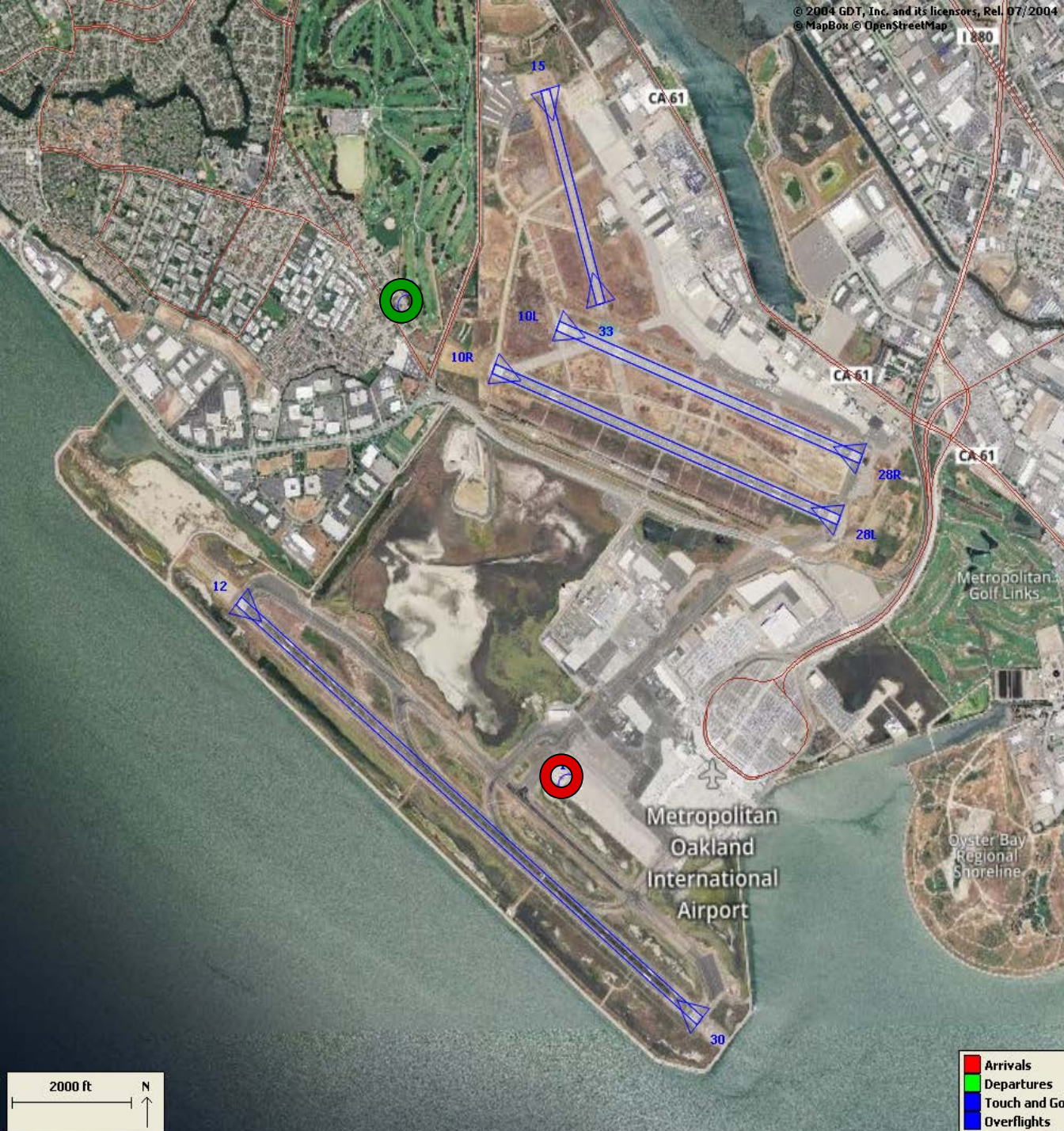
2019Q1
99% Compliance
(1,155 total landings)
(7 non-compliant)

2018Q1
99% Compliance
(2,592 total landings)
(14 non-compliant)



Heading: 319
Elevation: 18

Arrivals
Departures
Touch and Go
Overflights



Engine Run-up NAP

2019Q1
100% Compliance
(14 engine run-ups)*
(0 non-compliant)

2018Q1
100% Compliance
(14 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 = 141

First Quarter 2019 (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	8	2	0.0	0.4%	5	0.1	0.9%	0	0.0	0.0%	15
2	26	10	0.1	1.8%	0	0.0	0.0%	0	0.0	0.0%	36
3	29	4	0.0	0.7%	2	0.0	0.4%	1	0.0	0.2%	36
4	51	42	0.5	7.4%	23	0.3	4.1%	3	0.0	0.5%	119
5	43	19	0.2	3.4%	12	0.1	2.1%	4	0.0	0.7%	78
6	21	7	0.1	1.2%	6	0.1	1.1%	4	0.0	0.7%	38
7	9	9	0.1	1.6%	3	0.0	0.5%	1	0.0	0.2%	22
8	28	15	0.2	2.6%	0	0.0	0.0%	0	0.0	0.0%	43
9	18	32	0.4	5.6%	7	0.1	1.2%	2	0.0	0.4%	59
10	52	16	0.2	2.8%	4	0.0	0.7%	1	0.0	0.2%	73
11	7	5	0.1	0.9%	1	0.0	0.2%	1	0.0	0.2%	14
12	27	13	0.1	2.3%	4	0.0	0.7%	0	0.0	0.0%	44
13	8	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	10
14	5	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	5
All NMTs	332	176	2	0	67	1	0	17	0	0	592

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 81

First Quarter 2019 (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	29	4	0.0	1.7%	2	0.0	0.8%	1	0.0	0.4%	36
4	51	42	0.5	17.6%	23	0.3	9.6%	3	0.0	1.3%	119
5	43	19	0.2	7.9%	12	0.1	5.0%	4	0.0	1.7%	78
6	21	7	0.1	2.9%	6	0.1	2.5%	4	0.0	1.7%	38
7	9	9	0.1	3.8%	3	0.0	1.3%	1	0.0	0.4%	22
8	28	15	0.2	6.3%	0	0.0	0.0%	0	0.0	0.0%	43
Total	181	96	1.1		46	0.5		13	0.1		336

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 60

First Quarter 2019 (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	26	10	0.1	3.0%	0	0.0	0.0%	0	0.0	0.0%	36
9	18	32	0.4	9.8%	7	0.1	2.1%	2	0.0	0.6%	59
10	52	16	0.2	4.9%	4	0.0	1.2%	1	0.0	0.3%	73
11	7	5	0.1	1.5%	1	0.0	0.3%	1	0.0	0.3%	14
12	27	13	0.1	4.0%	4	0.0	1.2%	0	0.0	0.0%	44
13	8	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	10
14	5	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	5
Total	143	78	0.9		16	0.2		4	0.0		241

Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
First Quarter 2019, 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 2019 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	109	36	25	65	15
DC10/MD10	44	15	19	66	21
MD11	186	62	112	67	19
A306	86	29	38	65	18
B757	142	47	51	65	15
B77L	59	20	16	65	11
Difference [A-B]					
DC10/MD10		-72	-13	-3	-1
MD11		30	99	-3	-5
A306		-38	17	-2	-7

(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 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
First Quarter 2018 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	167	56	37	66	75
DC10/MD10	56	19	33	68	77
MD11	214	71	104	67	76
A306	102	34	38	65	74
B757	164	55	46	65	74
B77L	64	21	16	66	76
Difference [A-B]					
DC10/MD10		-68	1	-1	-1
MD11		39	91	-3	-3
A306		-33	17	-2	-3

(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)

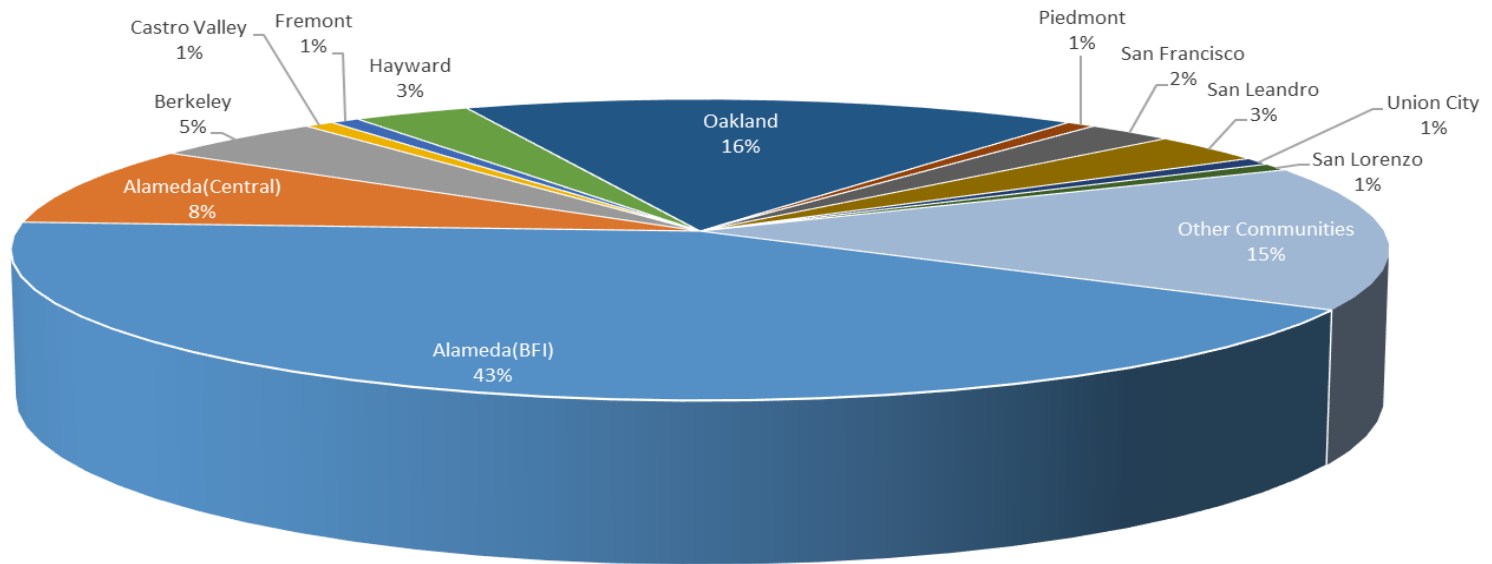
**Oakland International Airport
Noise Complaint Summary
January 2019**

Community	Callers	Complaints
Alameda(BFI)	55	340
Alameda(Central)	11	67
Berkeley	6	11
Castro Valley	1	7
Fremont	1	5
Hayw ard	4	259
Oakland	21	5049
Piedmont	1	2
San Francisco	3	4
San Leandro	4	302
Union City	1	392
San Lorenzo	1	2
Other Communities	20	51
Total	129	6491
Complaints by Type		
Website	513	
E-mail	5578	
Phone	400	
Complaints by Time of Day		
Day (0700 - 1900)	1607	
Evening (1900 - 2200)	1347	
Night (2200 - 0700)	3537	
Complaints by Type of Operation		
Arrivals	5339	
Departures	1137	
Over-flights	3	
Touch & Go	12	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	516	
Helicopter	2	
Jet	5853	
Military	0	
Not Reported	0	
Other	6	
Propeller	32	
Turbo-prop	82	

Number of Callers

January 2019

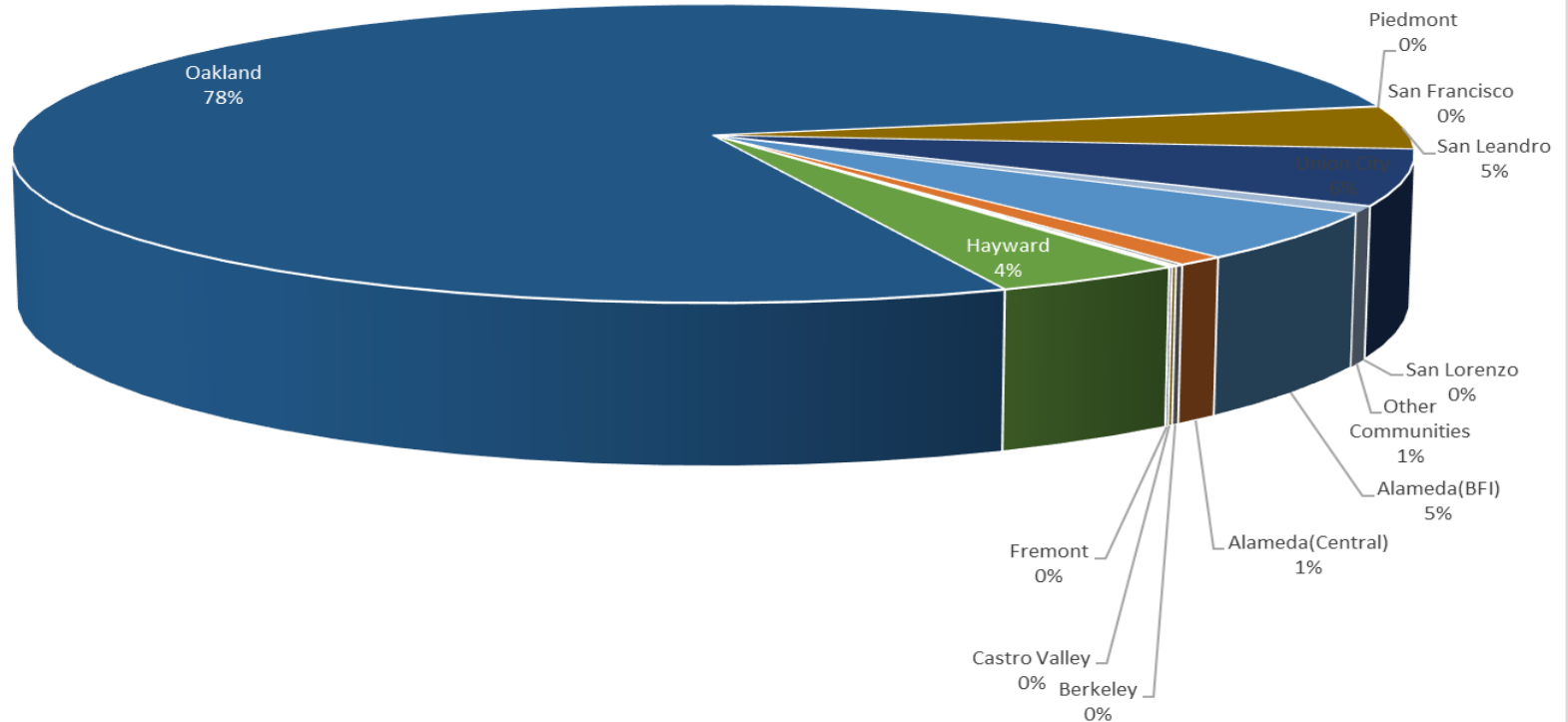
Noise Complaints Summary by Number of Callers



Number of Complaints

January 2019

Noise Complaints Summary by Number of Complaints



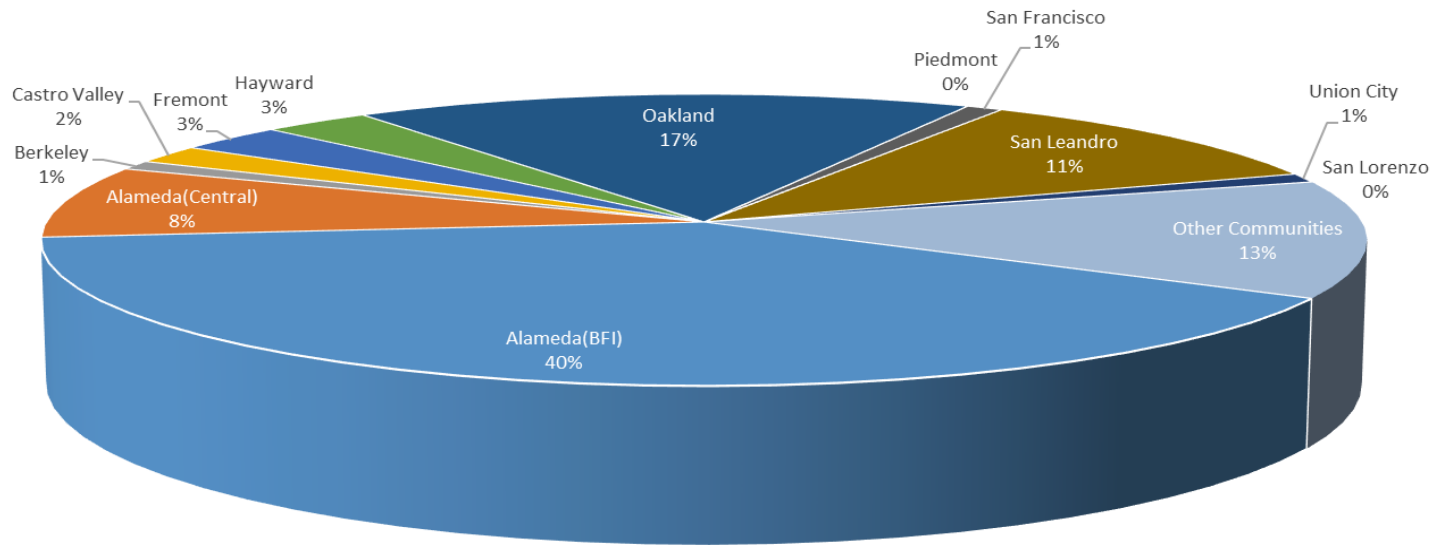
**Oakland International Airport
Noise Complaint Summary
February 2019**

Community	Callers	Complaints
Alameda(BFI)	40	224
Alameda(Central)	8	152
Berkeley	1	1
Castro Valley	2	9
Fremont	3	3
Hayw ard	3	283
Oakland	17	3611
Piedmont	0	0
San Francisco	1	1
San Leandro	11	371
Union City	1	378
San Lorenzo	0	0
Other Communities	13	32
Total	100	5065
Complaints by Type		
Website	471	
E-mail	4161	
Phone	433	
Complaints by Time of Day		
Day (0700 - 1900)	1290	
Evening (1900 - 2200)	1065	
Night (2200 - 0700)	2710	
Complaints by Type of Operation		
Arrivals	3927	
Departures	1116	
Over-flights	8	
Touch & Go	14	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	190	
Helicopter	4	
Jet	4743	
Military	0	
Not Reported	0	
Other	10	
Propeller	37	
Turbo-prop	81	

Number of Callers

February 2019

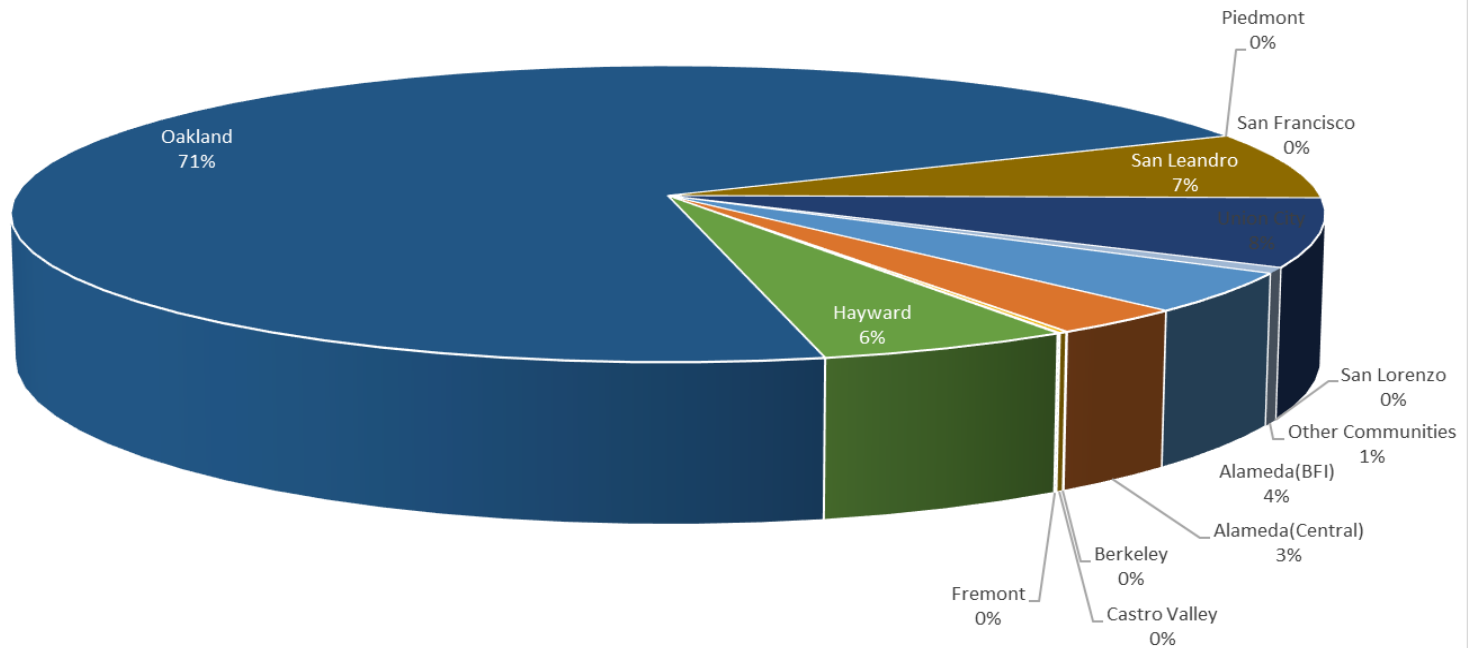
Noise Complaints Summary by Number of Callers



Number of Complaints

February 2019

Noise Complaints Summary by Number of Complaints



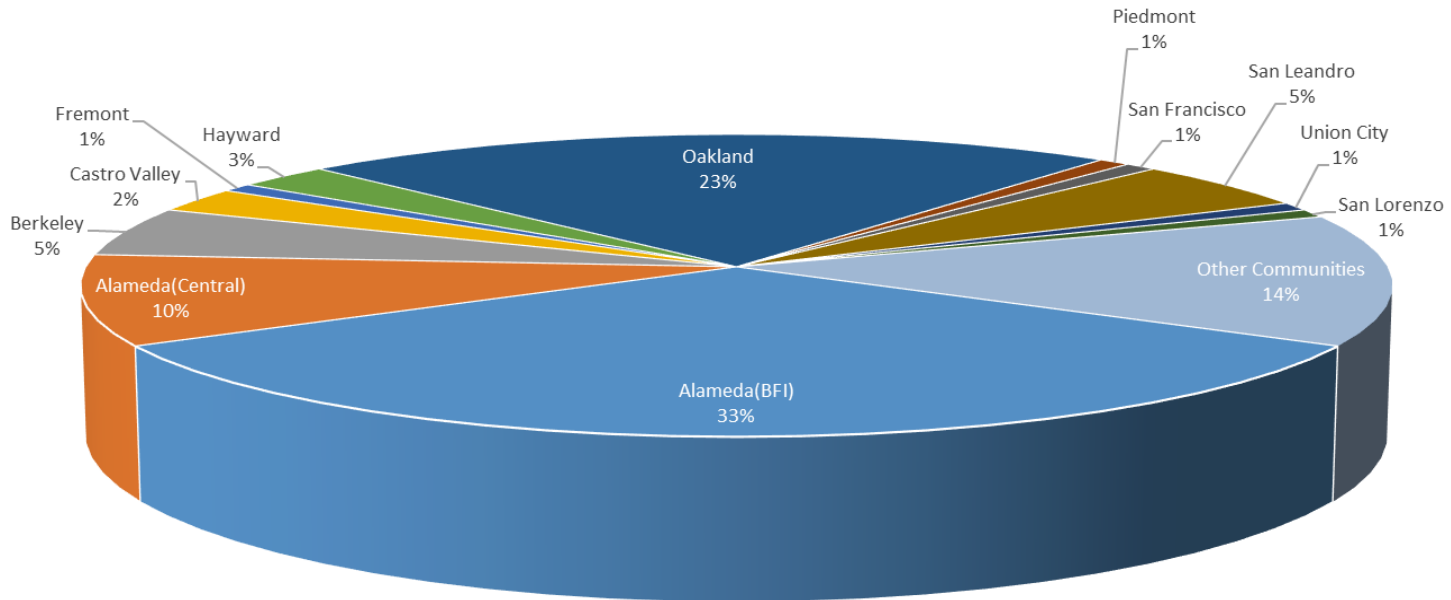
**Oakland International Airport
Noise Complaint Summary
March 2019**

Community	Callers	Complaints
Alameda(BFI)	38	268
Alameda(Central)	11	158
Berkeley	6	13
Castro Valley	3	18
Fremont	1	11
Hayw ard	3	331
Oakland	26	3929
Piedmont	1	1
San Francisco	1	1
San Leandro	6	216
Union City	1	602
San Lorenzo	1	1
Other Communities	16	83
Total	114	5632
Complaints by Type		
Website	729	
E-mail	4677	
Phone	226	
Complaints by Time of Day		
Day (0700 - 1900)	1274	
Evening (1900 - 2200)	455	
Night (2200 - 0700)	3903	
Complaints by Type of Operation		
Arrivals	4941	
Departures	658	
Over-flights	14	
Touch & Go	19	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	349	
Helicopter	11	
Jet	5138	
Military	0	
Not Reported	0	
Other	28	
Propeller	44	
Turbo-prop	62	

Number of Callers

March 2019

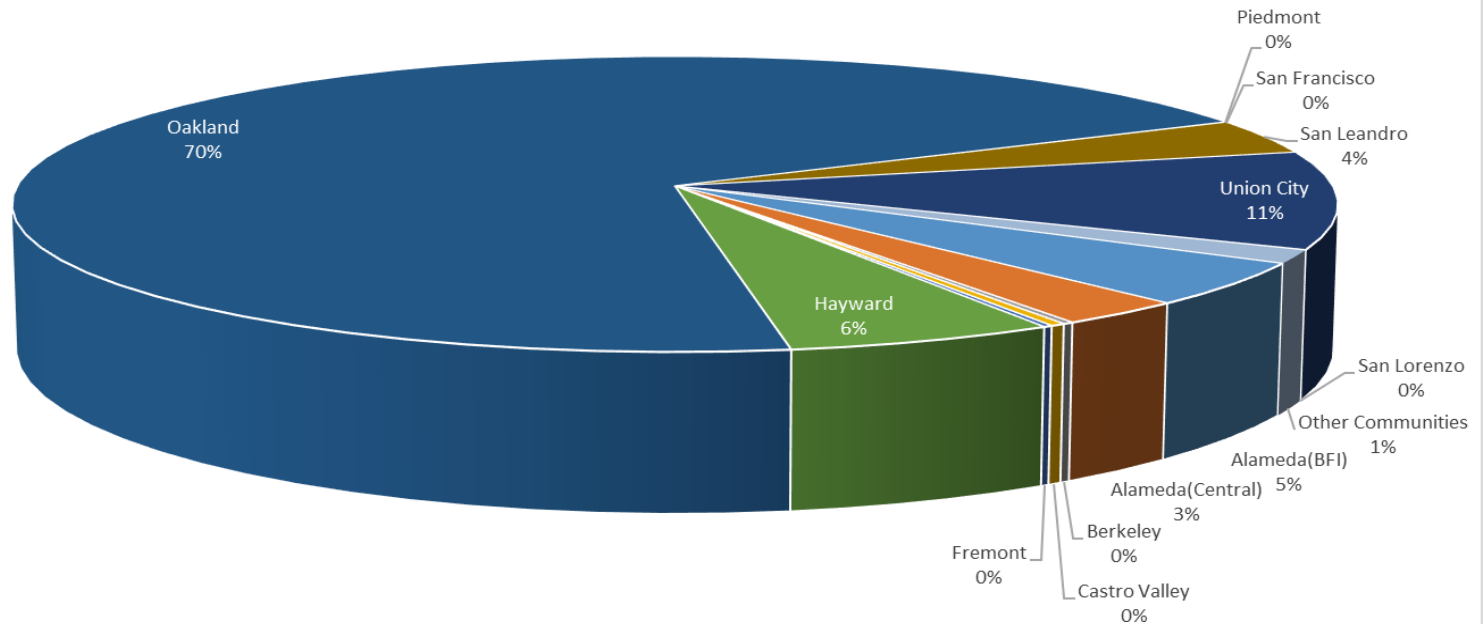
Noise Complaints Summary by Number of Callers

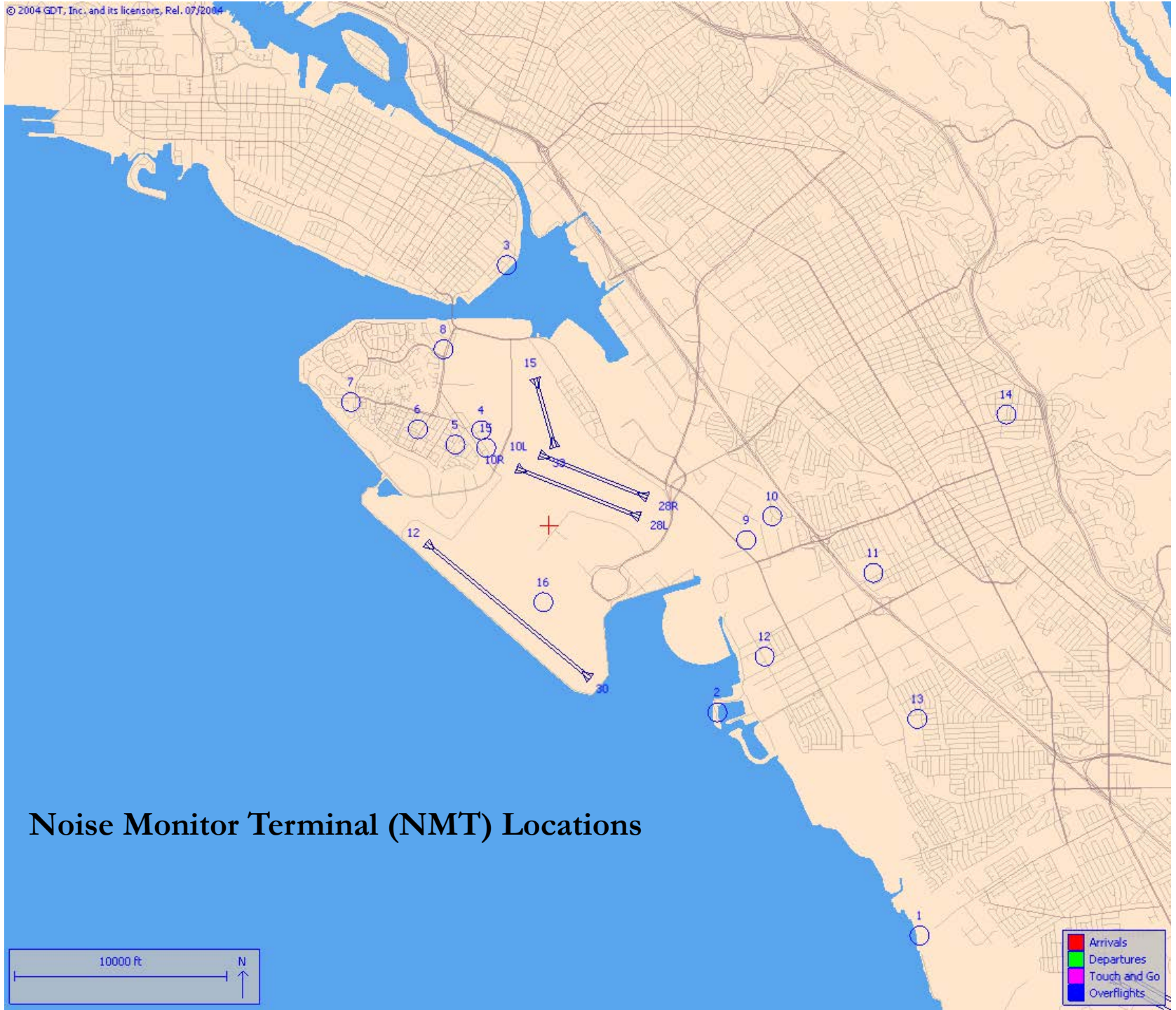


Number of Complaints

March 2019

Noise Complaints Summary by Number of Complaints





Noise Monitor Terminal (NMT) Locations