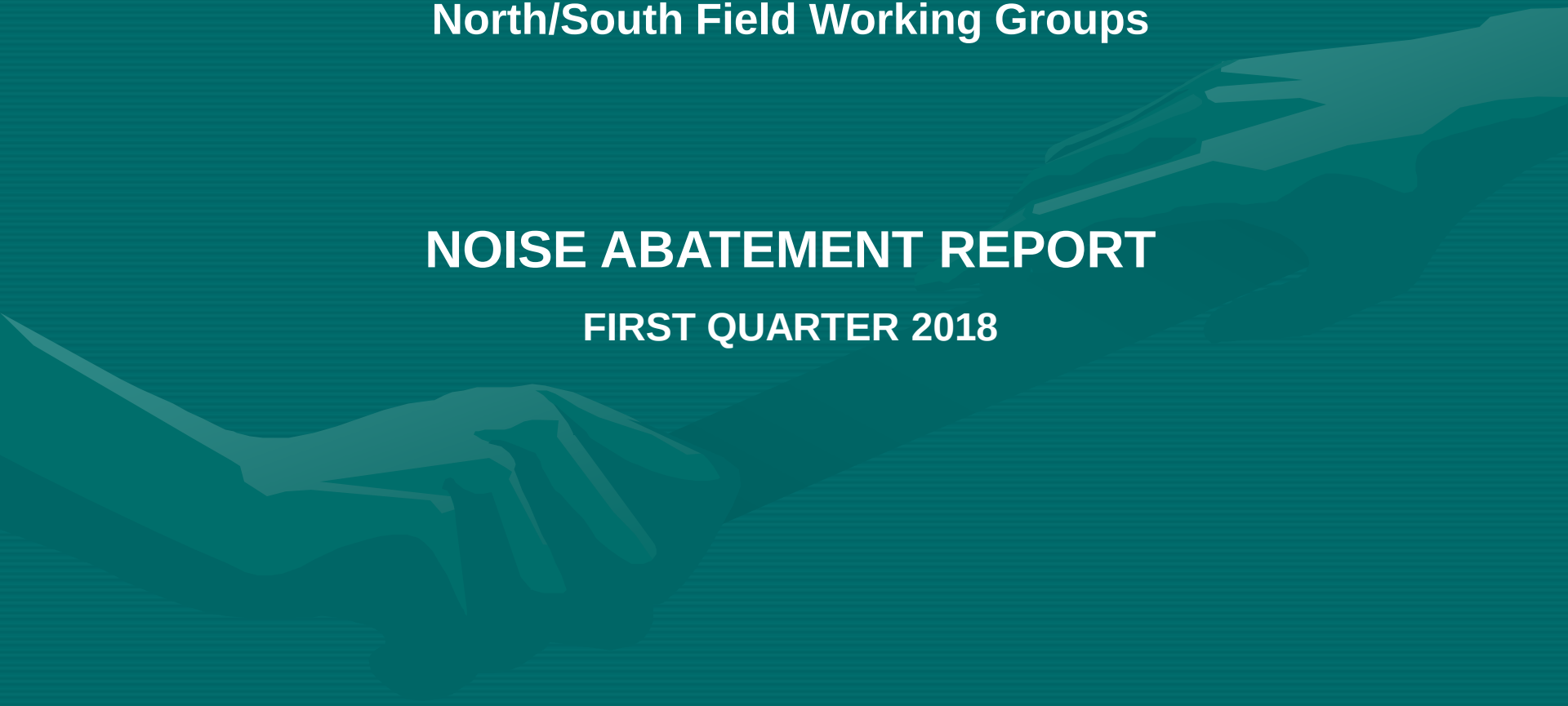


NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

FIRST QUARTER 2018



Compliance Monitoring Quarterly Summary Comparison First Quarter 2018				
	2017Q1		2018Q1	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	94%	6%	94%	6%
Total Airport-wide Corporate Jet Departures	2,856	178	3,141	199
Runway 10R/L Jet Landing Compliance	76%	24%	68%	32%
Total Southeast Plan Corporate Jet Landings	97	30	189	88
North Field VFR Departure Compliance	94%	6%	93%	7%
Total Runways 28R/L & 33 Departures	369	25	362	28
North Field Quiet Hours Compliance	82%	18%	80%	20%
Total North Field Quiet Hours Departures	265	60	211	52
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	18,845	1	17,067	2
Night Time Departure Compliance	99%	1%	99%	1%
Total Runway 30 Night Turbojet Departures	3,638	50	3,040	32
Runway 12 Night Departure Compliance	86%	14%	99%	1%
Total Runway 12 Night Turbojet Departures	131	22	187	1
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	5,764	8	4,959	3
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	1%
Total 100 Degree Radial Turbojet Landings	3,028	46	2,578	14
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	7	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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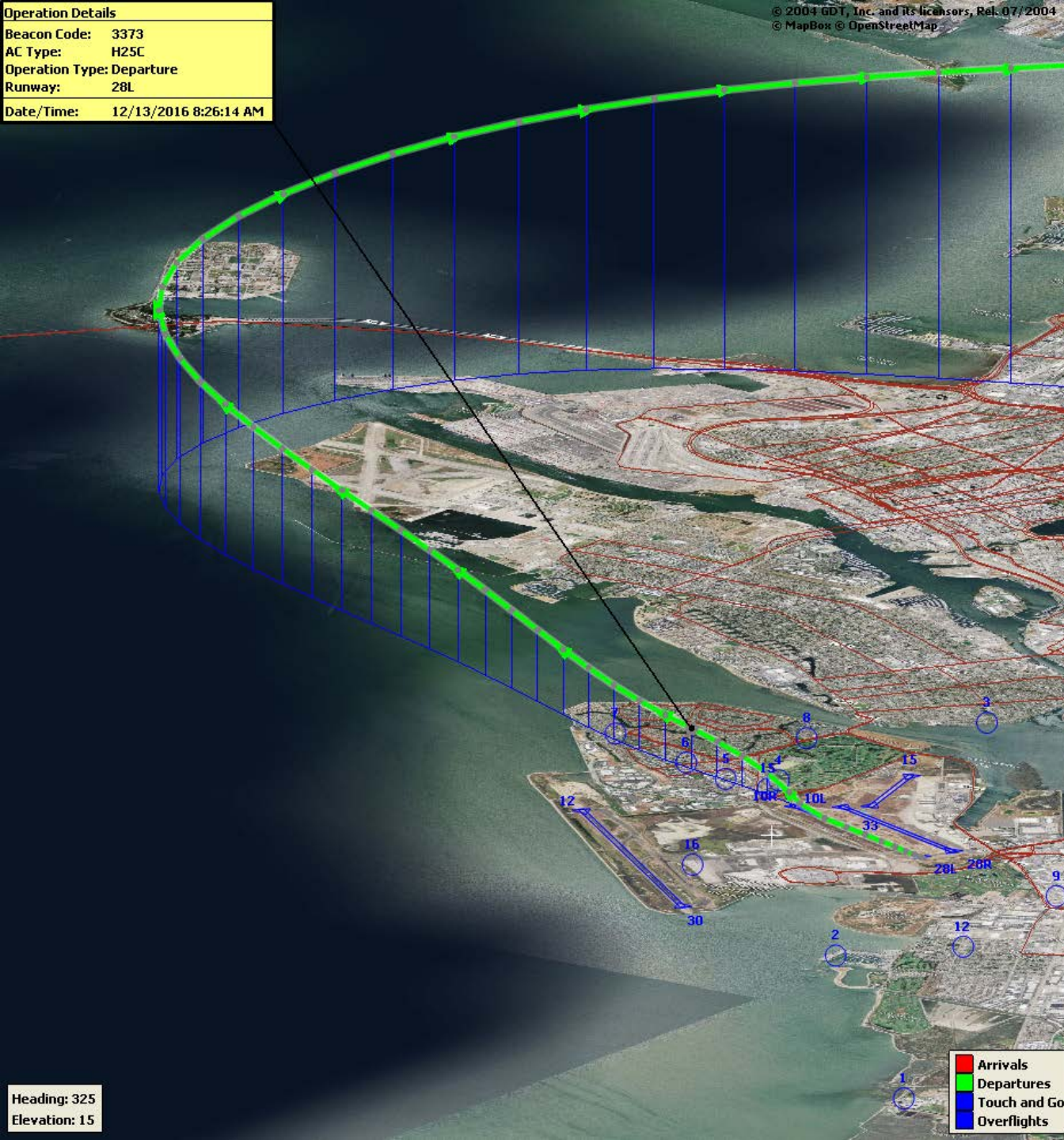
Runway 28R/L Jet Departure NAP

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

2017Q1
94% Compliance
(3,034 total departures)
(178 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

2018Q1

68% Compliance
(277 total landings)
(88 non-compliant)

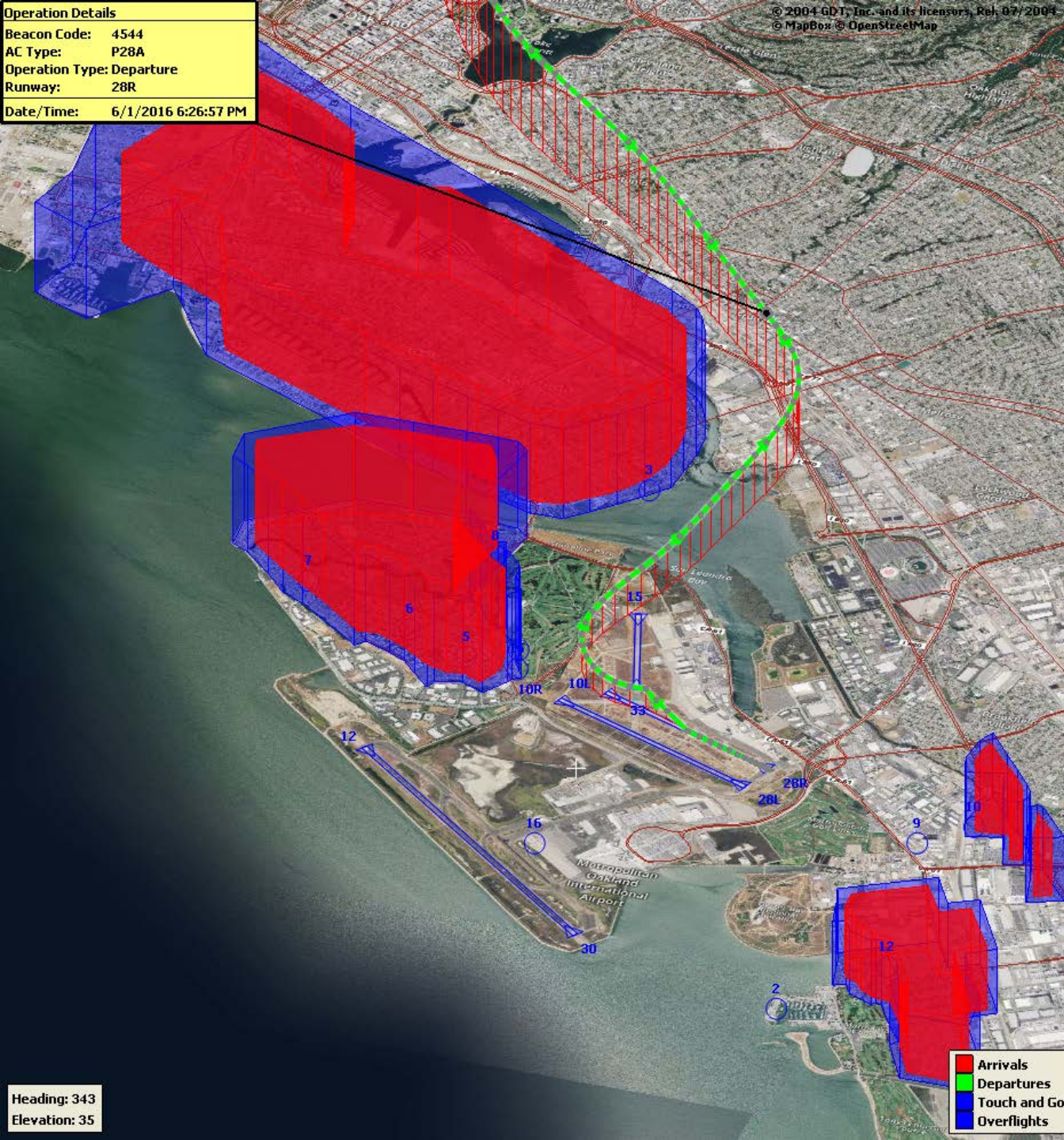
2017Q1

76% Compliance
(127 total landings)
(30 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 6:26:57 PM



VFR Aircraft Departure NAP

2018Q1
93% Compliance
(390 total departures)
(28 non-compliant)

2017Q1
94% Compliance
(394 total departures)
(25 non-compliant)

Heading: 343
Elevation: 35

- Arrivals
- Departures
- Touch and Go
- Overflights

Operation Details	
Beacon Code:	3351
AC Type:	PC12
Operation Type:	Departure
Runway:	28R
Date/Time:	12/13/2016 6:02:37 AM

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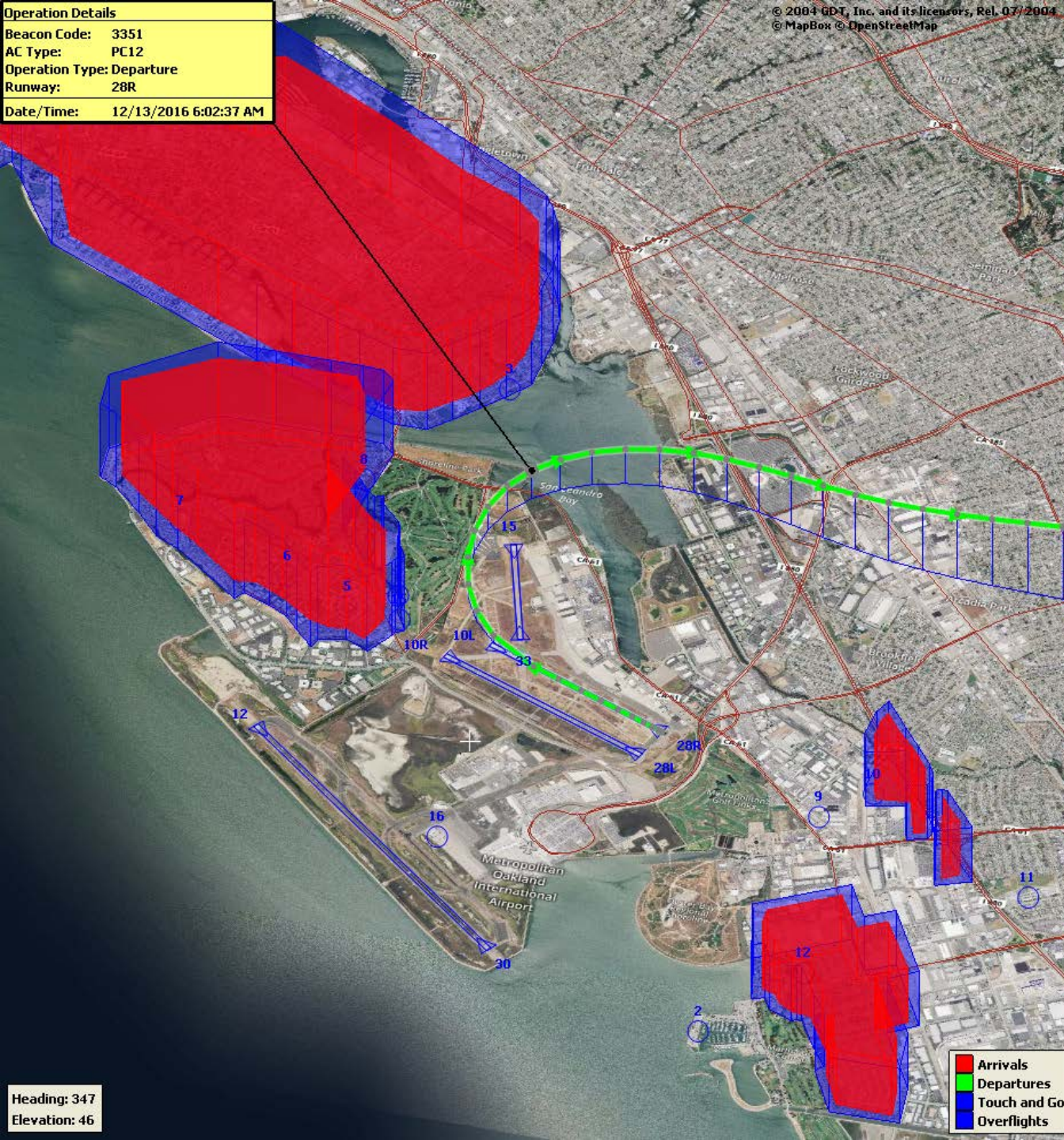
North Field Quiet Hours NAP

2018Q1
80% Compliance
(263 total departures)
(52 non-compliant)

2017Q1
82% Compliance
(325 total departures)
(60 non-compliant)

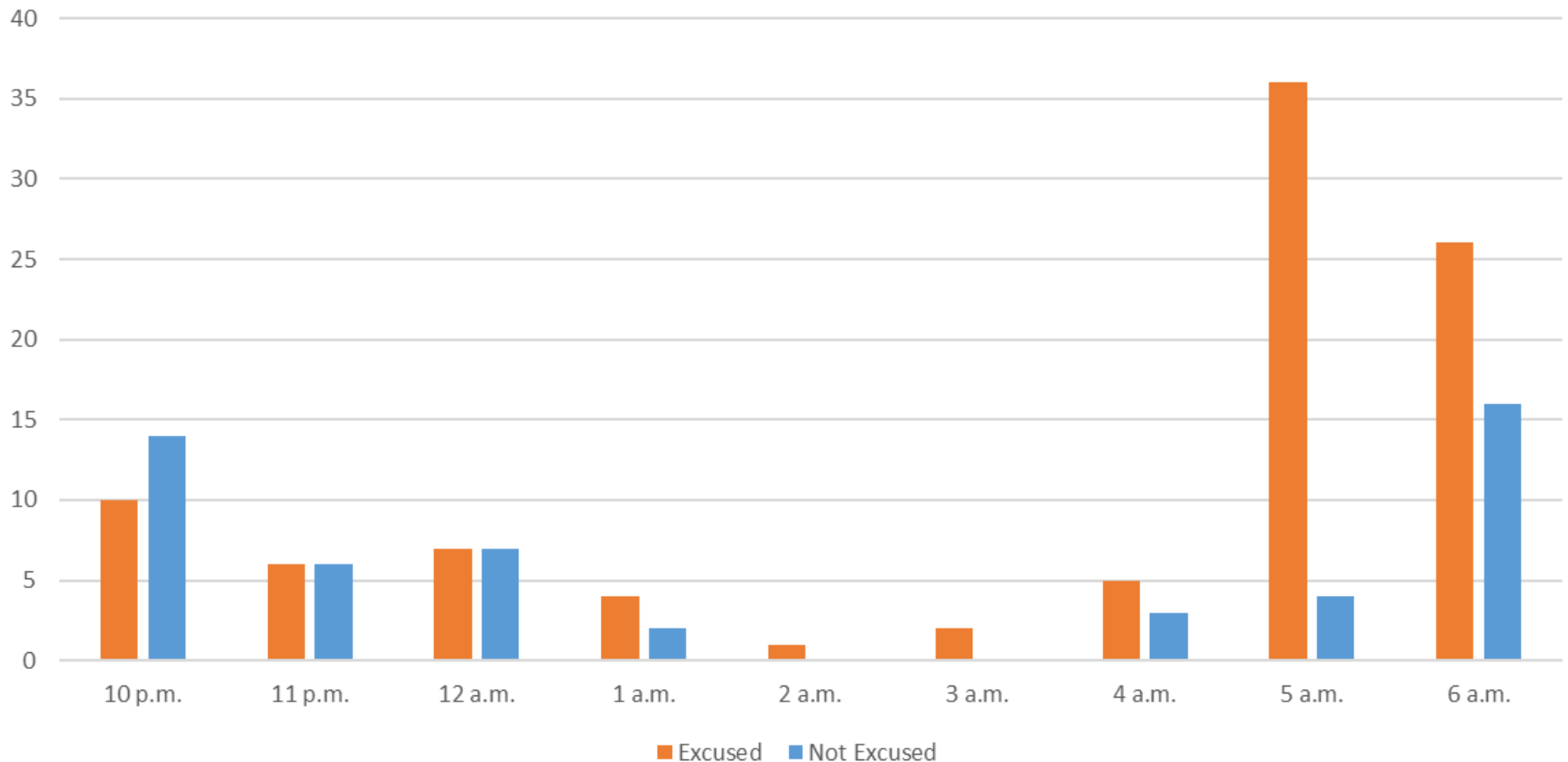
Heading: 347
Elevation: 46

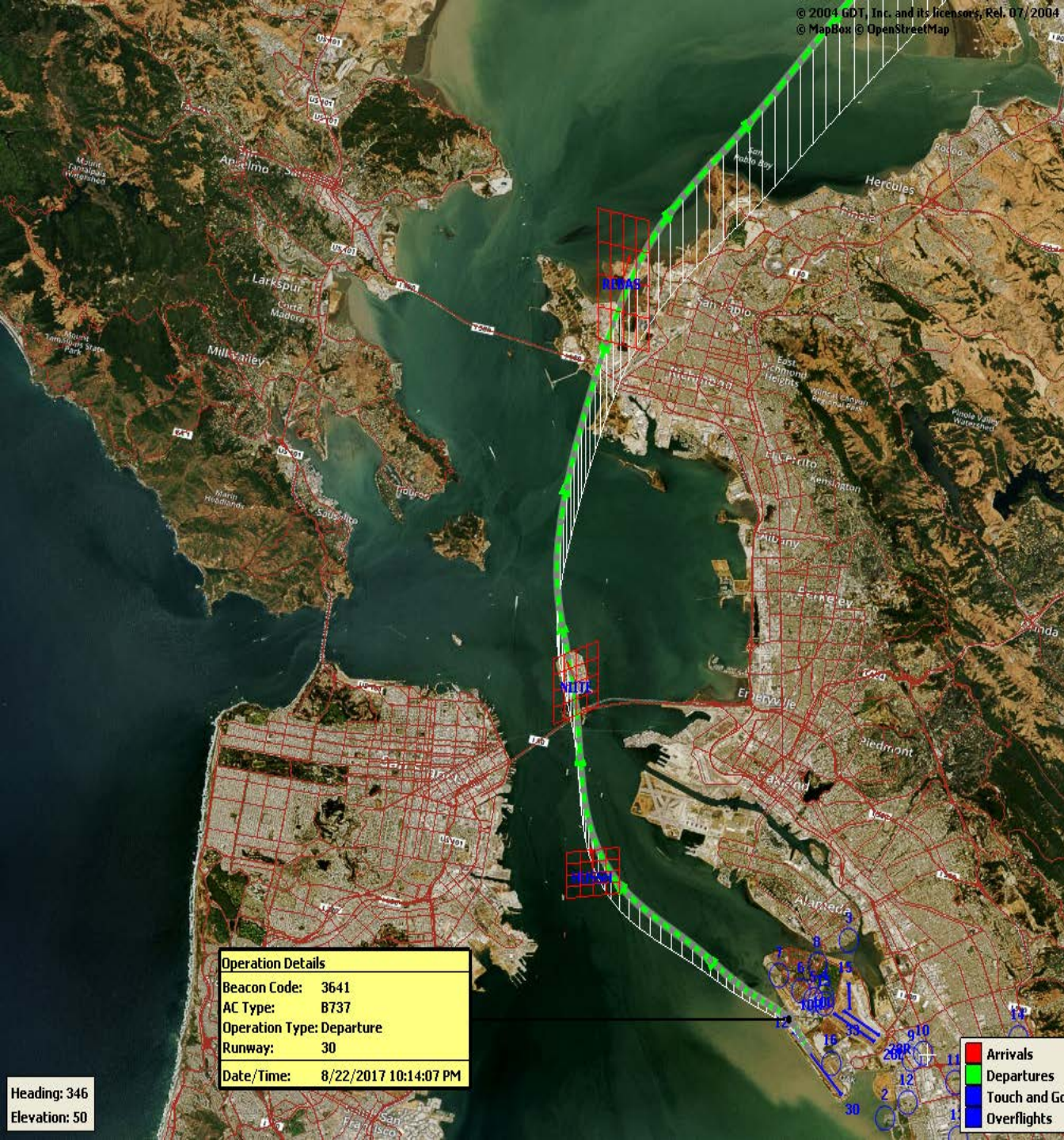
■ Arrivals
■ Departures
■ Touch and Go
■ Overflights



North Field Quiet Hours NAP Non-Compliant by Hour

Excused/Not Excused Violation Count by Hour





Night Time Departure NAP

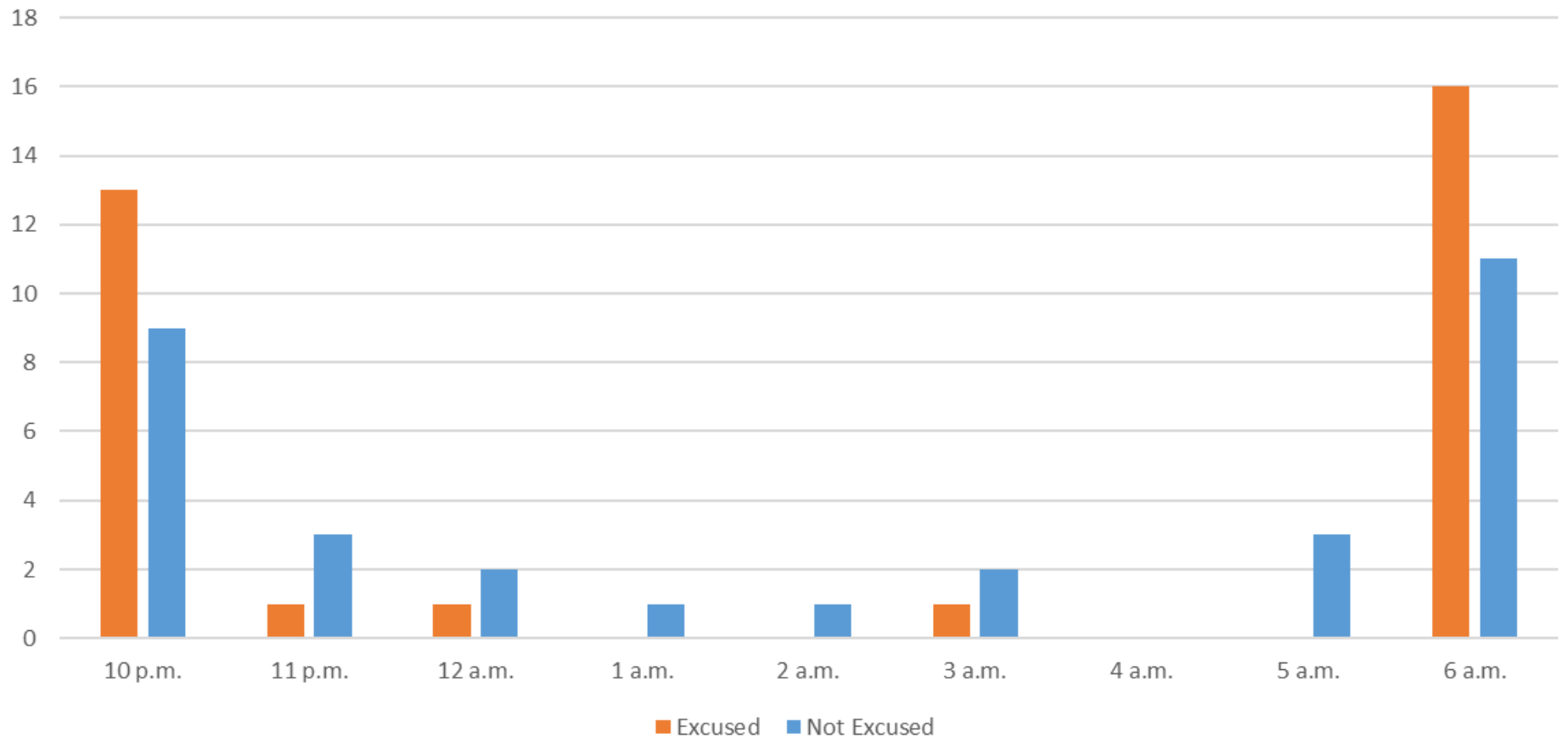
2018Q1*
99% Compliance
(3,072 total departures)
(32 non-compliant)

*REBAS Gate non-compliant = 26

2017Q1
99% Compliance
(3,688 total departures)
(50 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



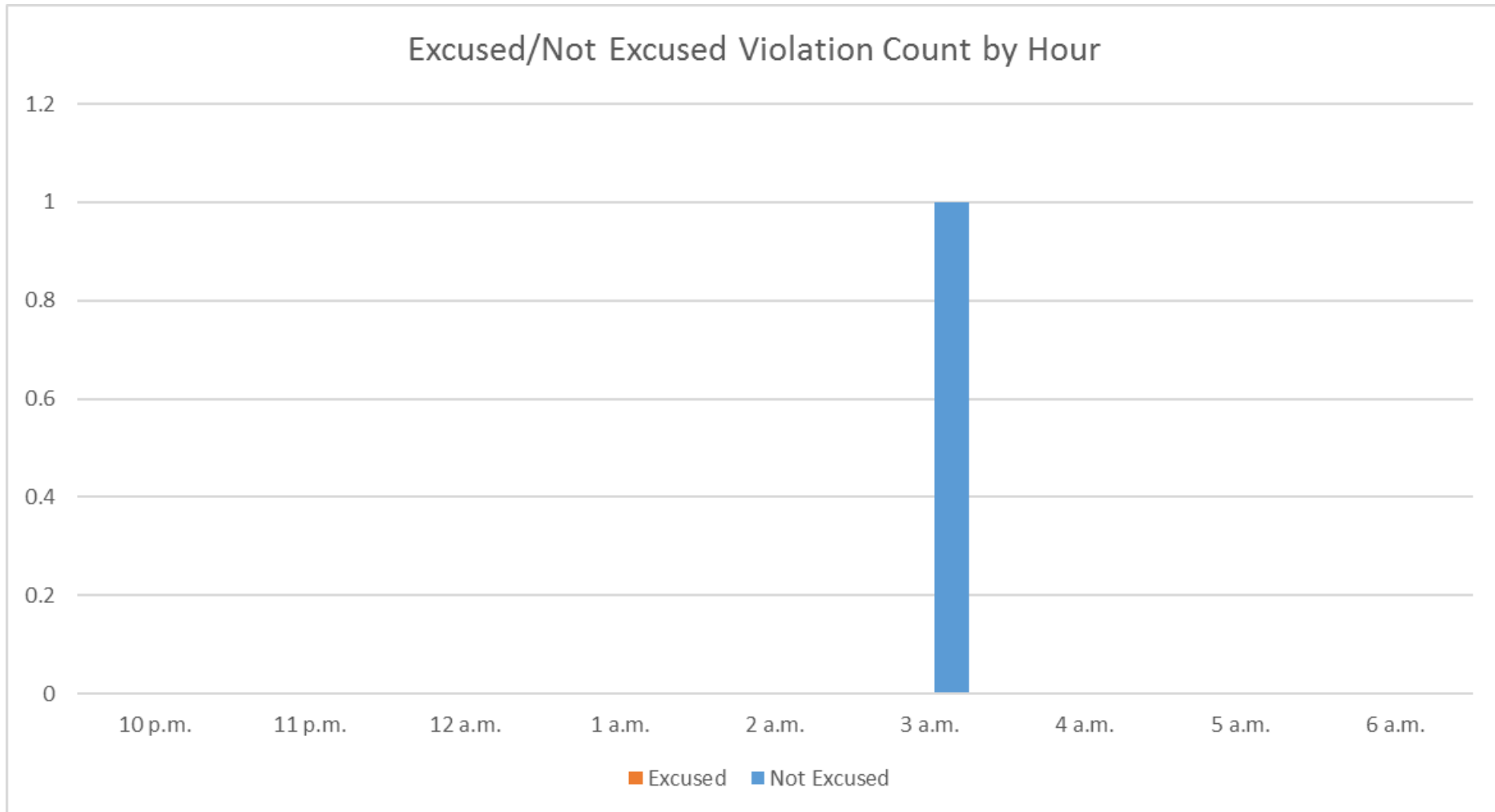
Runway 12 Night Departure NAP

2018Q1
99% Compliance
(188 total departures)
(1 non-compliant)

2017Q1
86% Compliance
(153 total departures)
(22 non-compliant)

Arrivals
Departures
Touch and Go
Overflights

Runway 12 Night Departure Non-Compliant Count by Hour



Runway 30 Bay Farm Right Turn NAP

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

2017Q1
100% Compliance
(18,846 total departures)
(1 non-compliant)

Operation Details	
Beacon Code:	3777
AC Type:	B737
Runway:	30
Date/Time:	3/15/2017 9:53:03 AM

Heading: 337
Elevation: 34

Arrivals

Departures

Touch and Go

Overflights



Operation Details	
Beacon Code:	3257
AC Type:	B737
Operation Type:	Departure
Runway:	30
Date/Time:	12/15/2016 9:42:35 PM



Runway 30 East Turn NAP

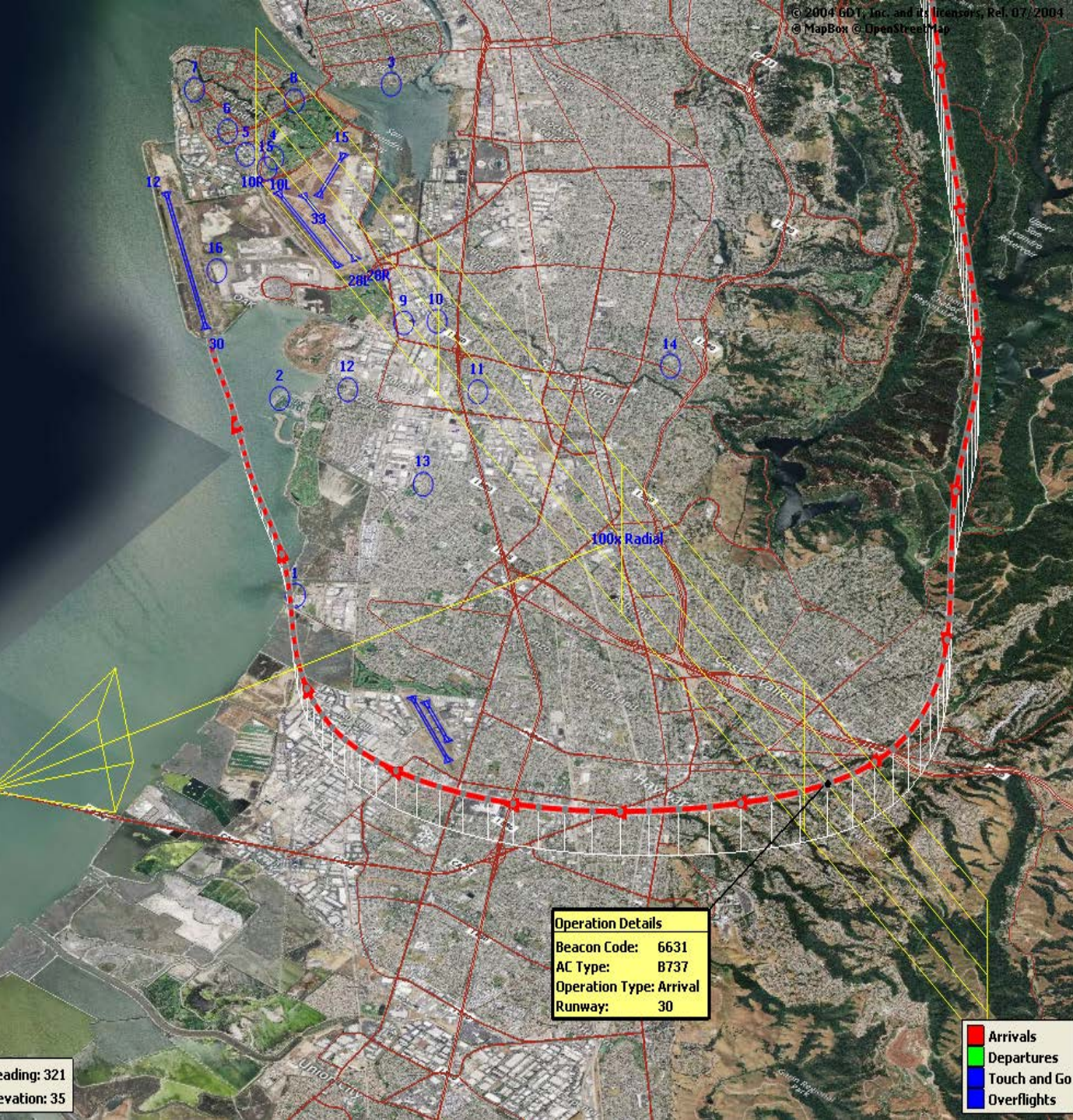
2018Q1
100% Compliance
(4,962 total departures)
(3 non-compliant)

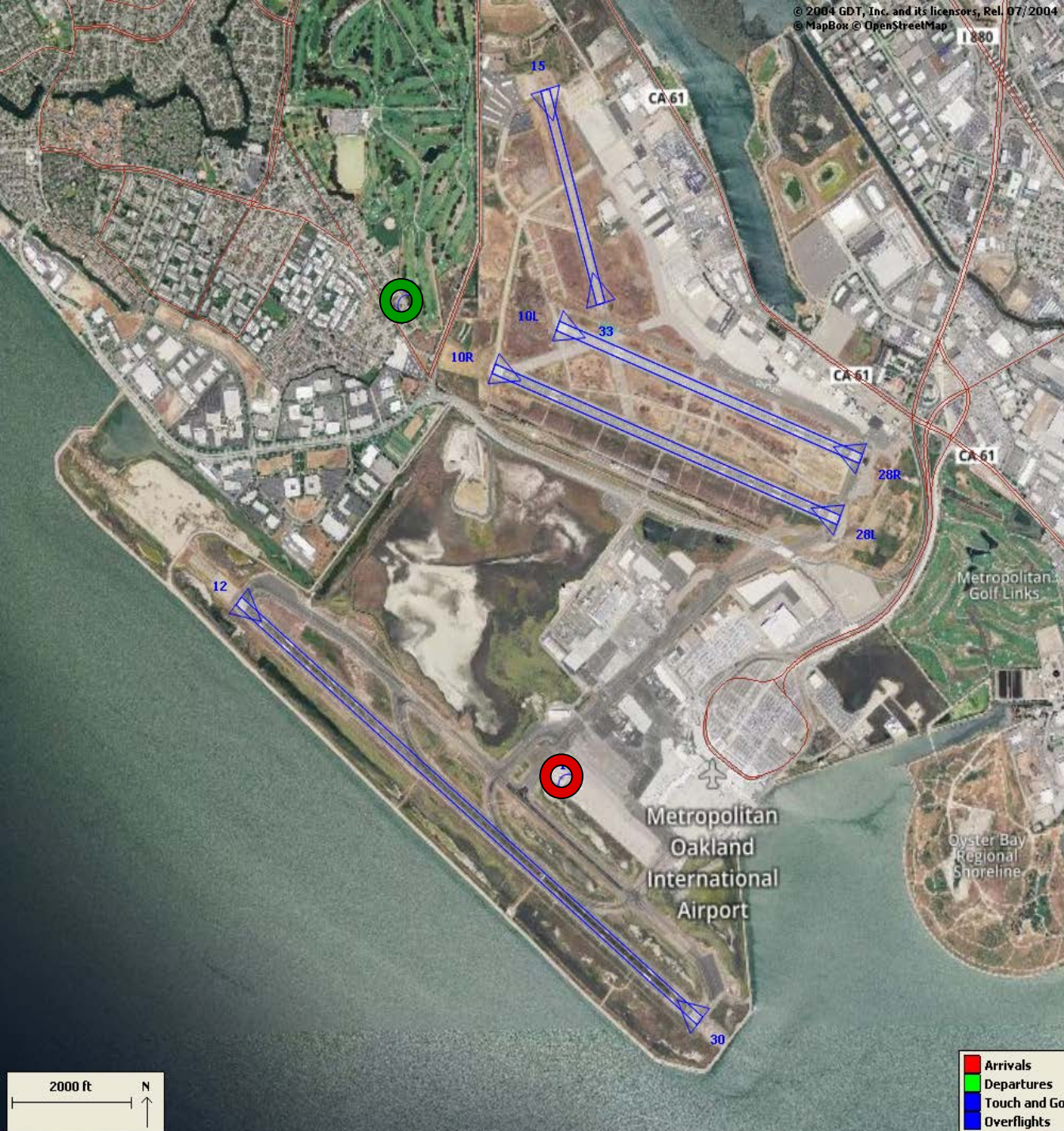
* Excused Departures = 59

2017Q1
100% Compliance
(5,772 total departures)
(8 non-compliant)

Heading: 353
Elevation: 46

Arrivals
Departures
Touch and Go
Overflights





Engine Run-up NAP

2018Q1

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

2017Q1

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 = 150

First 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	3	0	0.0	0.0%	0	0.0	0.0%	1	0.0	0.2%	4
2	25	2	0.0	0.4%	0	0.0	0.0%	1	0.0	0.2%	28
3	35	4	0.0	0.7%	1	0.0	0.2%	1	0.0	0.2%	41
4	28	32	0.4	5.6%	30	0.3	5.3%	33	0.4	5.8%	123
5	44	13	0.1	2.3%	6	0.1	1.1%	41	0.5	7.2%	104
6	20	6	0.1	1.1%	9	0.1	1.6%	56	0.6	9.9%	91
7	8	9	0.1	1.6%	32	0.4	5.6%	2	0.0	0.4%	51
8	37	27	0.3	4.8%	3	0.0	0.5%	0	0.0	0.0%	67
9	6	9	0.1	1.6%	4	0.0	0.7%	3	0.0	0.5%	22
10	25	8	0.1	1.4%	3	0.0	0.5%	0	0.0	0.0%	36
11	5	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	7
12	7	2	0.0	0.4%	3	0.0	0.5%	1	0.0	0.2%	13
13	4	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	5
14	9	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	10
All NMTs	256	116	1	0	91	1	0	139	2	0	602

*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 = 126

First 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	35	4	0.0	1.7%	1	0.0	0.4%	1	0.0	0.4%	41
4	28	32	0.4	13.4%	30	0.3	12.6%	33	0.4	13.8%	123
5	44	13	0.1	5.4%	6	0.1	2.5%	41	0.5	17.2%	104
6	20	6	0.1	2.5%	9	0.1	3.8%	56	0.6	23.4%	91
7	8	9	0.1	3.8%	32	0.4	13.4%	2	0.0	0.8%	51
8	37	27	0.3	11.3%	3	0.0	1.3%	0	0.0	0.0%	67
Total	172	91	1.0		81	0.9		133	1.5		477

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 24

First 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	25	2	0.0	0.6%	0	0.0	0.0%	1	0.0	0.3%	28
9	6	9	0.1	2.7%	4	0.0	1.2%	3	0.0	0.9%	22
10	25	8	0.1	2.4%	3	0.0	0.9%	0	0.0	0.0%	36
11	5	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	7
12	7	2	0.0	0.6%	3	0.0	0.9%	1	0.0	0.3%	13
13	4	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	5
14	9	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	10
Total	81	25	0.3		10	0.1		5	0.1		121

**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	17
DC10/MD10	56	19	33	68	77	20
MD11	214	71	104	67	76	18
A306	102	34	38	65	74	13
B757	164	55	46	65	74	14
B77L	64	21	16	66	76	18
Difference [A-B]						
DC10/MD10		-68	1	-1	-1	-2
MD11		39	91	-3	-3	-6
A306		-33	17	-2	-3	-12

(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 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	
First Quarter 2017 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	88	29	25	66	74	17
DC10/MD10	58	19	31	67	76	21
MD11	152	51	95	66	75	17
A306	90	30	34	65	74	14
B757	151	50	61	65	74	14
B77L	57	19	16	65	75	15
Difference [A-B]						
DC10/MD10		-68	-1	-2	-2	-1
MD11		19	82	-4	-4	-7
A306		-37	13	-2	-3	-11

(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)

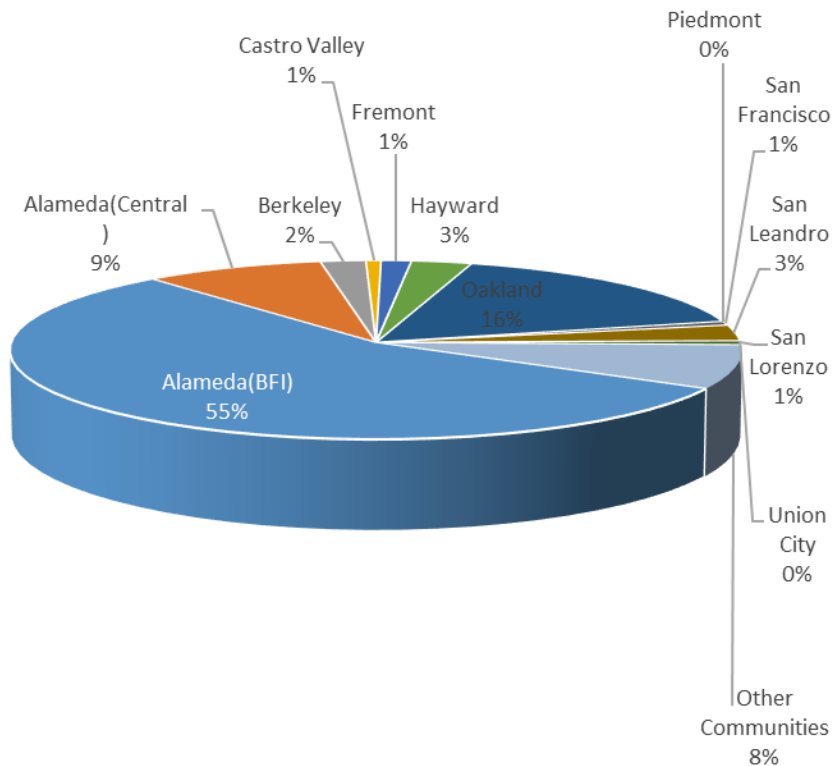
**Oakland International Airport
Noise Complaint Summary
January 2018**

Community	Callers	Complaints
Alameda(BFI)	77	439
Alameda(Central)	12	136
Berkeley	3	6
Castro Valley	1	1
Fremont	2	3
Hayward	4	128
Oakland	23	4842
Piedmont	0	0
San Francisco	1	64
San Leandro	4	11
Union City	0	0
San Lorenzo	1	3
Other Communities	11	624
Total	139	6257
Complaints by Time of Day		
Day (0700 - 1900)	1529	
Evening (1900 - 2200)	445	
Night (2200 - 0700)	4283	
Complaints by Type of Operation		
Arrivals	5474	
Departures	750	
Over-flights	31	
Touch & Go	2	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	246	
Helicopter	19	
Jet	5691	
Military	2	
Not Reported	0	
Other	29	
Propeller	144	
Turbo-prop	126	

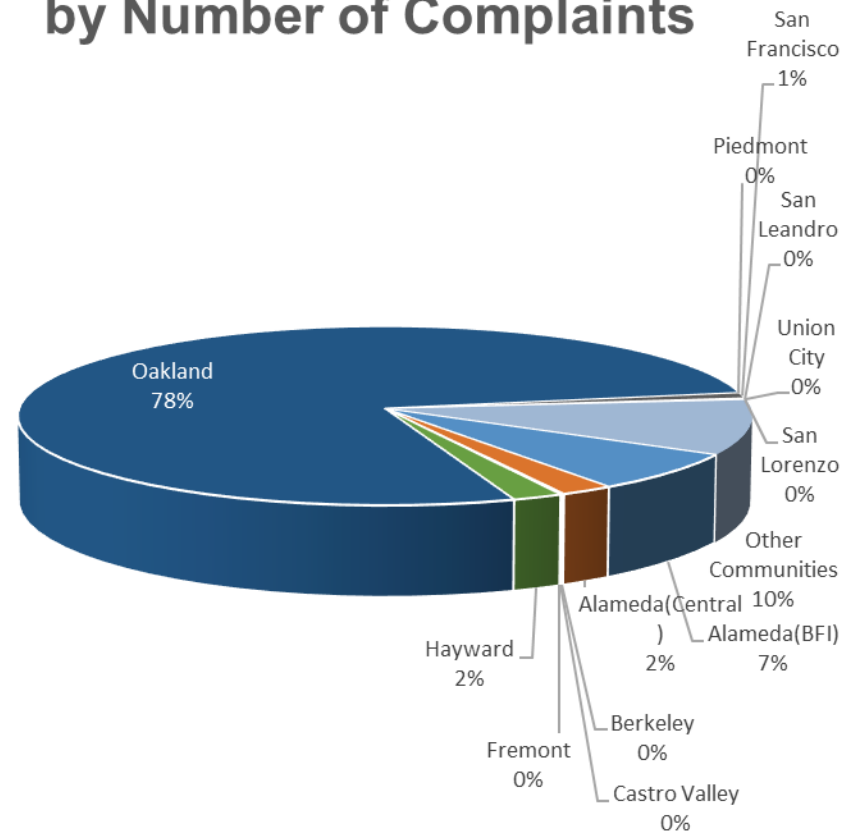
Noise Complaint Charts

January 2018

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints



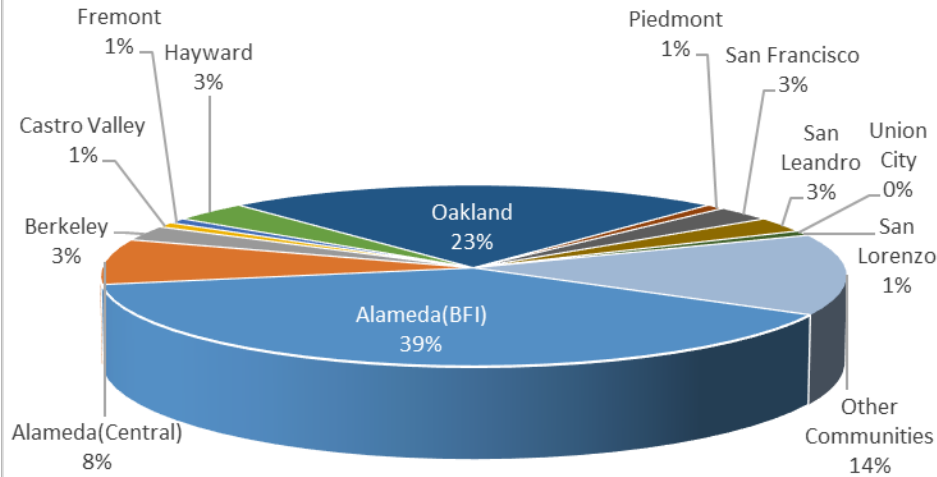
**Oakland International Airport
Noise Complaint Summary
February 2018**

Community	Callers	Complaints
Alameda(BFI)	43	288
Alameda(Central)	9	141
Berkeley	3	4
Castro Valley	1	1
Fremont	1	6
Hayward	4	61
Oakland	26	3022
Piedmont	1	3
San Francisco	3	83
San Leandro	3	4
Union City	0	0
San Lorenzo	1	2
Other Communities	16	365
Total	111	3980
Complaints by Time of Day		
Day (0700 - 1900)		1491
Evening (1900 - 2200)		849
Night (2200 - 0700)		1640
Complaints by Type of Operation		
Arrivals		2691
Departures		1147
Over-flights		58
Touch & Go		84
Not Linked to an Operation		0
Complaints by Type of Aircraft		
Business Jet		177
Helicopter		28
Jet		3279
Military		3
Not Reported		0
Other		43
Propeller		247
Turbo-prop		203

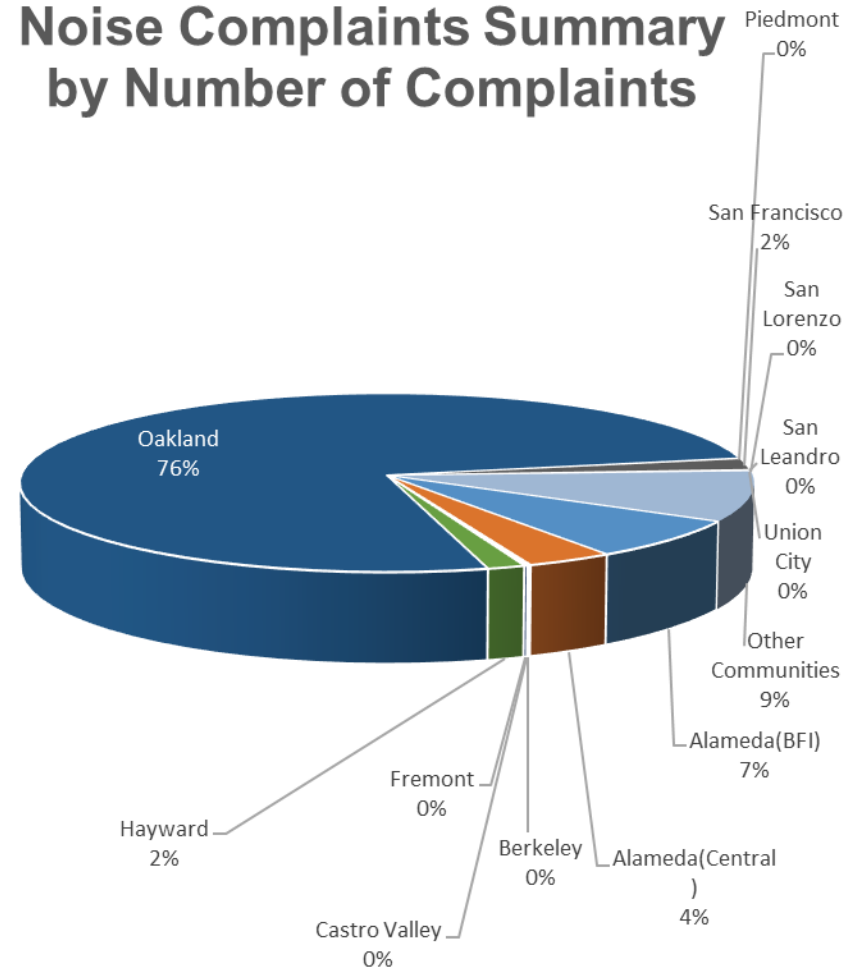
Noise Complaint Charts

February 2018

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints



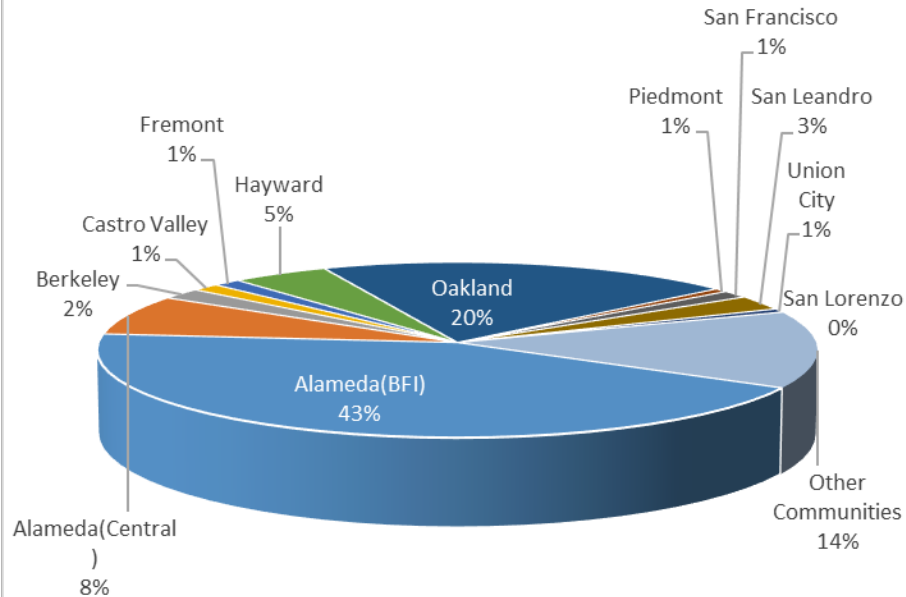
**Oakland International Airport
Noise Complaint Summary
March 2018**

Community	Callers	Complaints
Alameda(BFI)	64	447
Alameda(Central)	11	173
Berkeley	3	13
Castro Valley	2	4
Fremont	2	2
Hayw ard	7	85
Oakland	30	5261
Piedmont	1	1
San Francisco	2	108
San Leandro	4	8
Union City	1	1
San Lorenzo	0	0
Other Communities	21	752
Total	148	6855
Complaints by Time of Day		
Day (0700 - 1900)	2124	
Evening (1900 - 2200)	1245	
Night (2200 - 0700)	3486	
Complaints by Type of Operation		
Arrivals	5386	
Departures	1443	
Over-flights	21	
Touch & Go	5	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	585	
Helicopter	16	
Jet	5311	
Military	0	
Not Reported	0	
Other	409	
Propeller	371	
Turbo-prop	163	

Noise Complaint Charts

March 2018

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints

