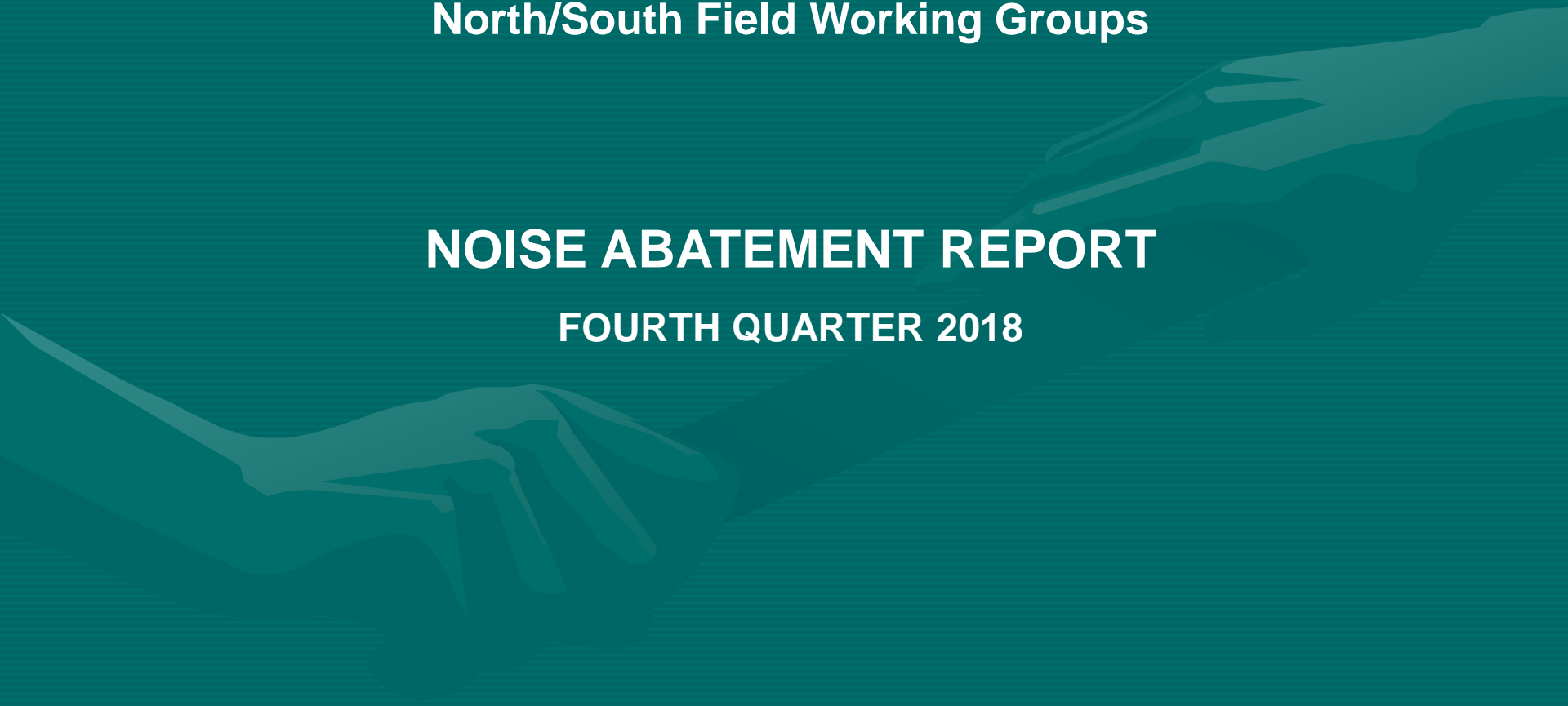


# **NOISE FORUM SUMMARY**

**North/South Field Working Groups**

## **NOISE ABATEMENT REPORT**

**FOURTH QUARTER 2018**



Compliance Monitoring Quarterly Summary Comparison Fourth Quarter 2018				
	2017Q4		2018Q4	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	94%	6%	96%	4%
Total Airport-wide Corporate Jet Departures	2,856	178	2,868	123
Runway 10R/L Jet Landing Compliance	76%	24%	59%	41%
Total Southeast Plan Corporate Jet Landings	97	30	96	66
North Field VFR Departure Compliance	94%	6%	93%	7%
Total Runways 28R/L & 33 Departures	369	25	235	18
North Field Quiet Hours Compliance	82%	18%	70%	30%
Total North Field Quiet Hours Departures	265	60	138	59
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	18,845	1	18,609	70
Night Time Departure Compliance	99%	1%	97%	3%
Total Runway 30 Night Turbojet Departures	3,638	50	3,078	84
Runway 12 Night Departure Compliance	86%	14%	98%	2%
Total Runway 12 Night Turbojet Departures	131	22	187	4
Runway 30 East Turn Departure Compliance	100%	0%	99%	1%
Total Runway 30 East Turn Departures	5,764	8	5,710	52
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	1%
Total 100 Degree Radial Turbojet Landings	3,028	46	1,408	11
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	7	0	9	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](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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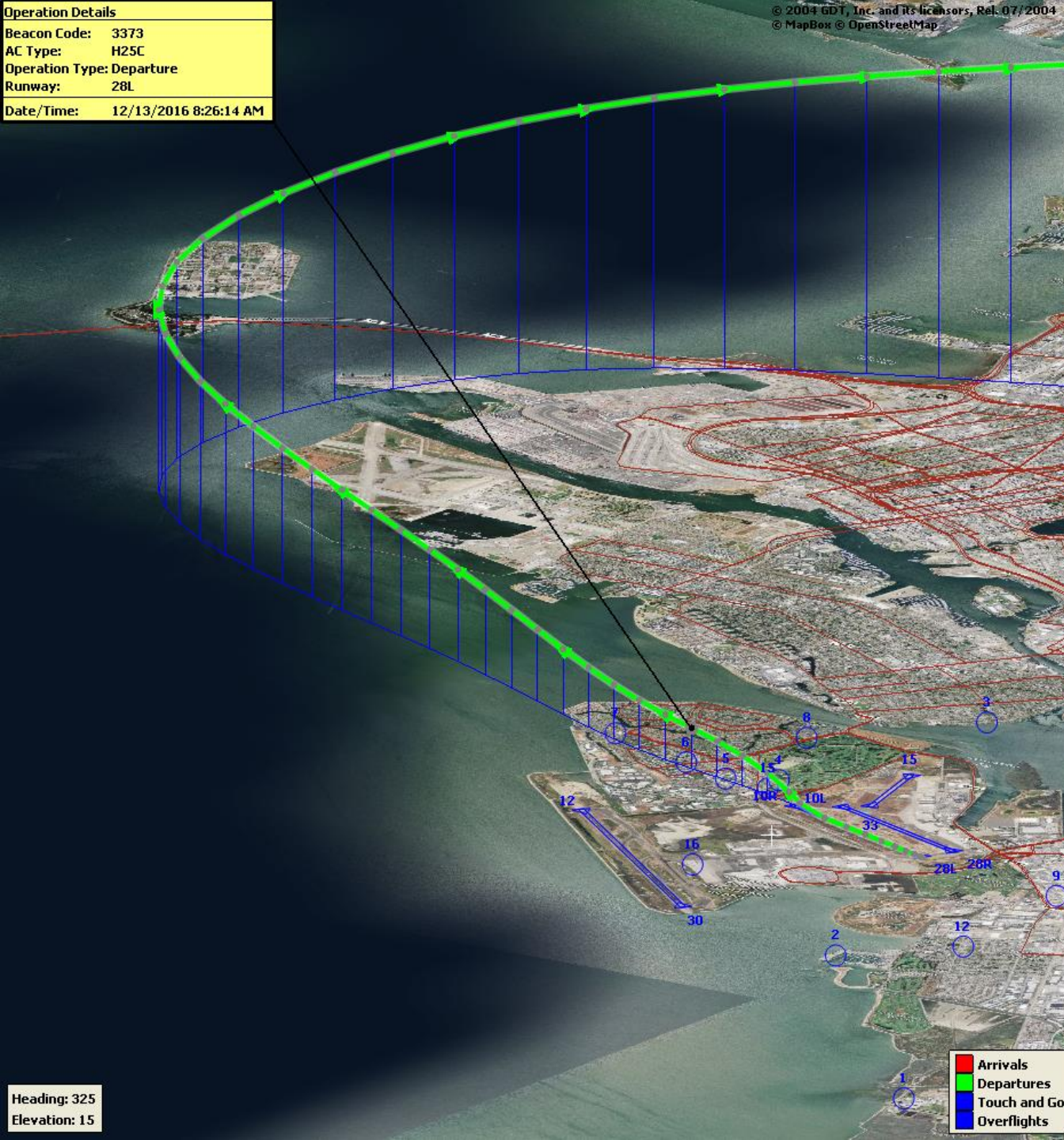
## Runway 28R/L Jet Departure NAP

**2018Q4**  
**96% Compliance**  
**(2,991 total departures)**  
**(123 non-compliant)**

**2017Q4**  
**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

**2018Q4**

**59 % Compliance**  
**(162 total landings)**  
**(66 non-compliant)**

**2017Q4**

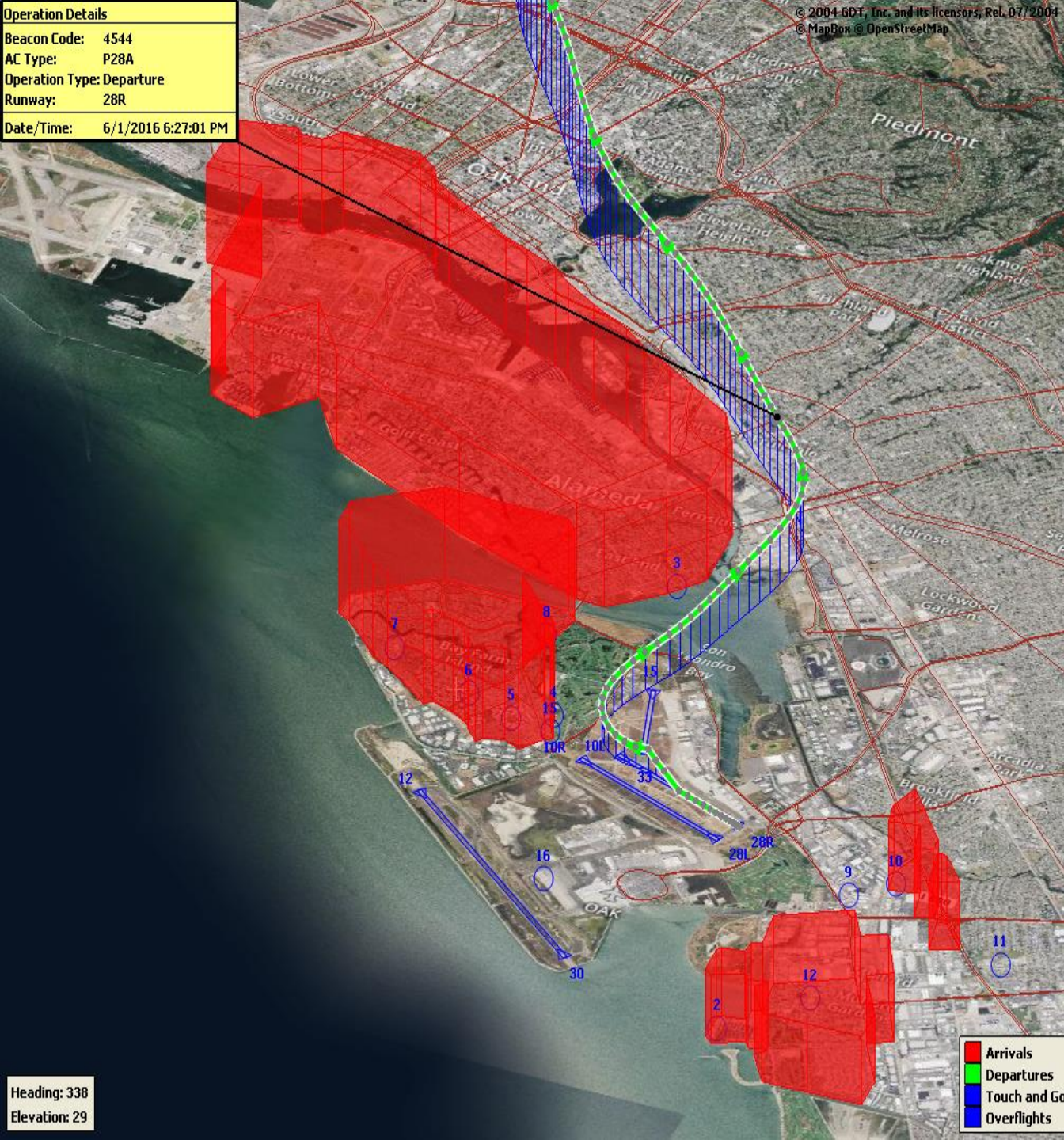
**76% Compliance**  
**(127 total landings)**  
**(30 non-compliant)**

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 6:27:01 PM



## VFR Aircraft Departure NAP

**2018Q4**  
**93% Compliance**  
**(253 total departures)**  
**(18 non-compliant)**

**2017Q4**  
**94% Compliance**  
**(394 total departures)**  
**(25 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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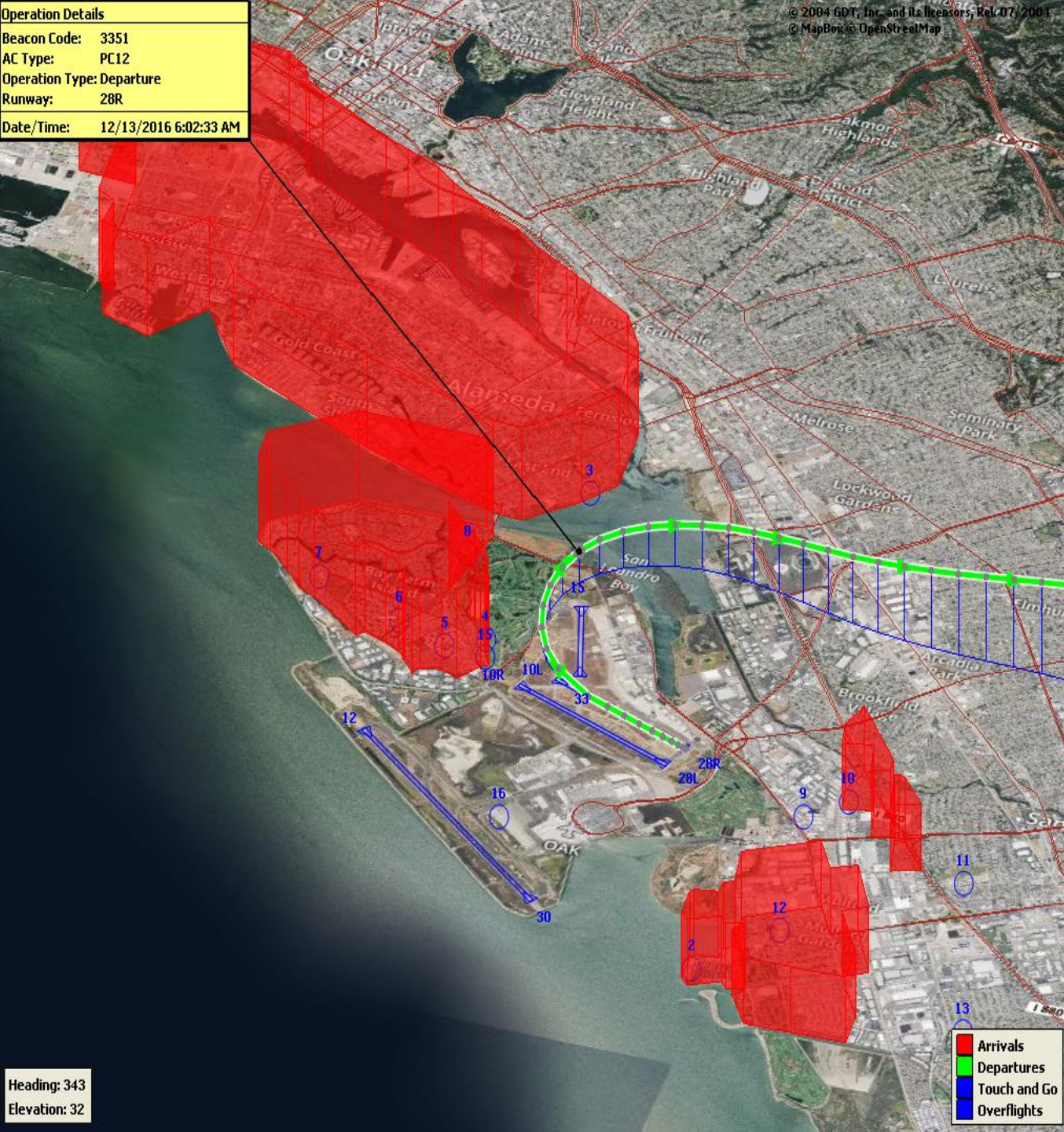
## North Field Quiet Hours NAP

**2018Q4**  
**70% Compliance**  
**(197 total departures)**  
**(59 non-compliant)**

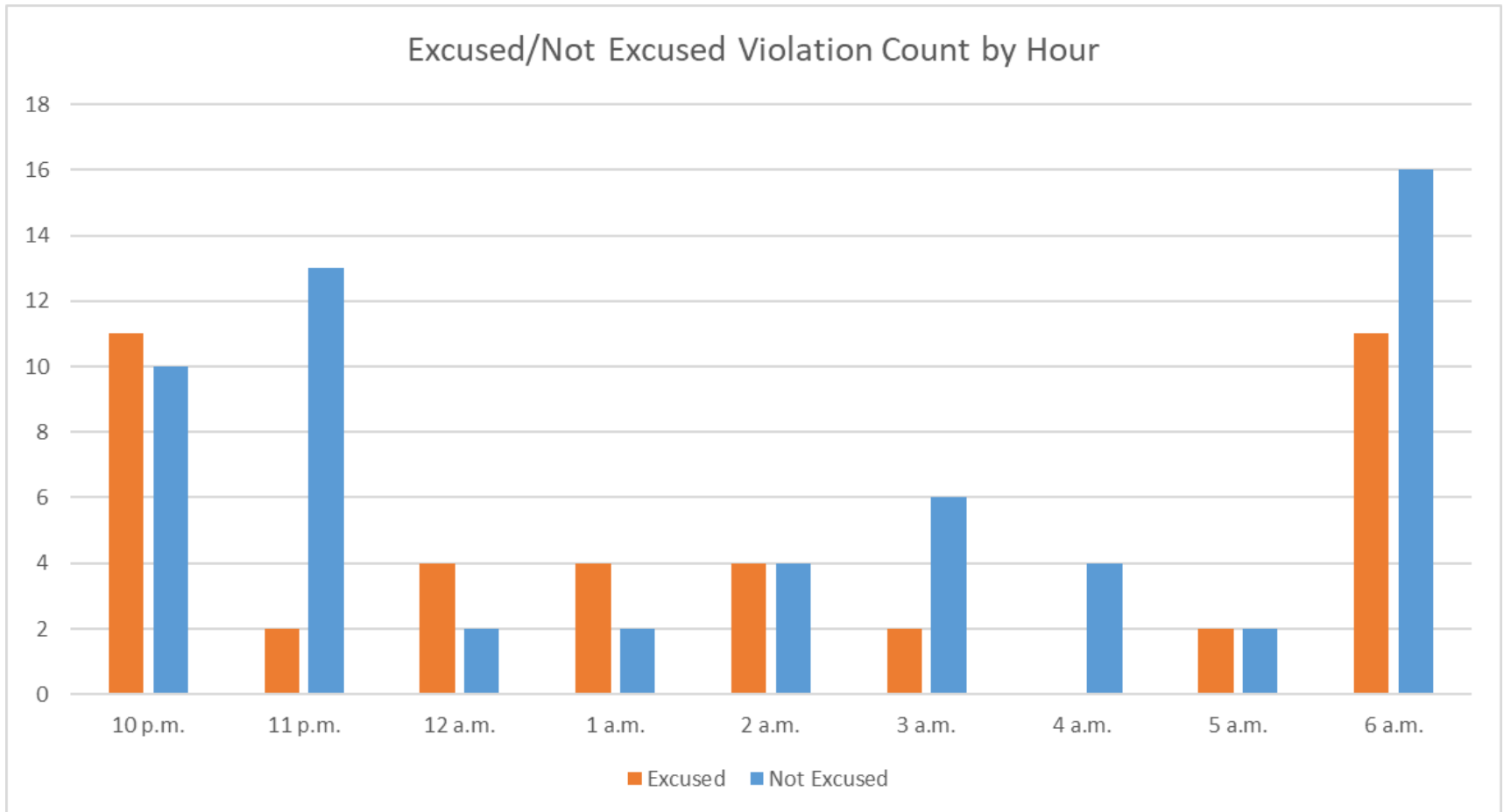
**2017Q4**  
**82% Compliance**  
**(325 total departures)**  
**(60 non-compliant)**

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

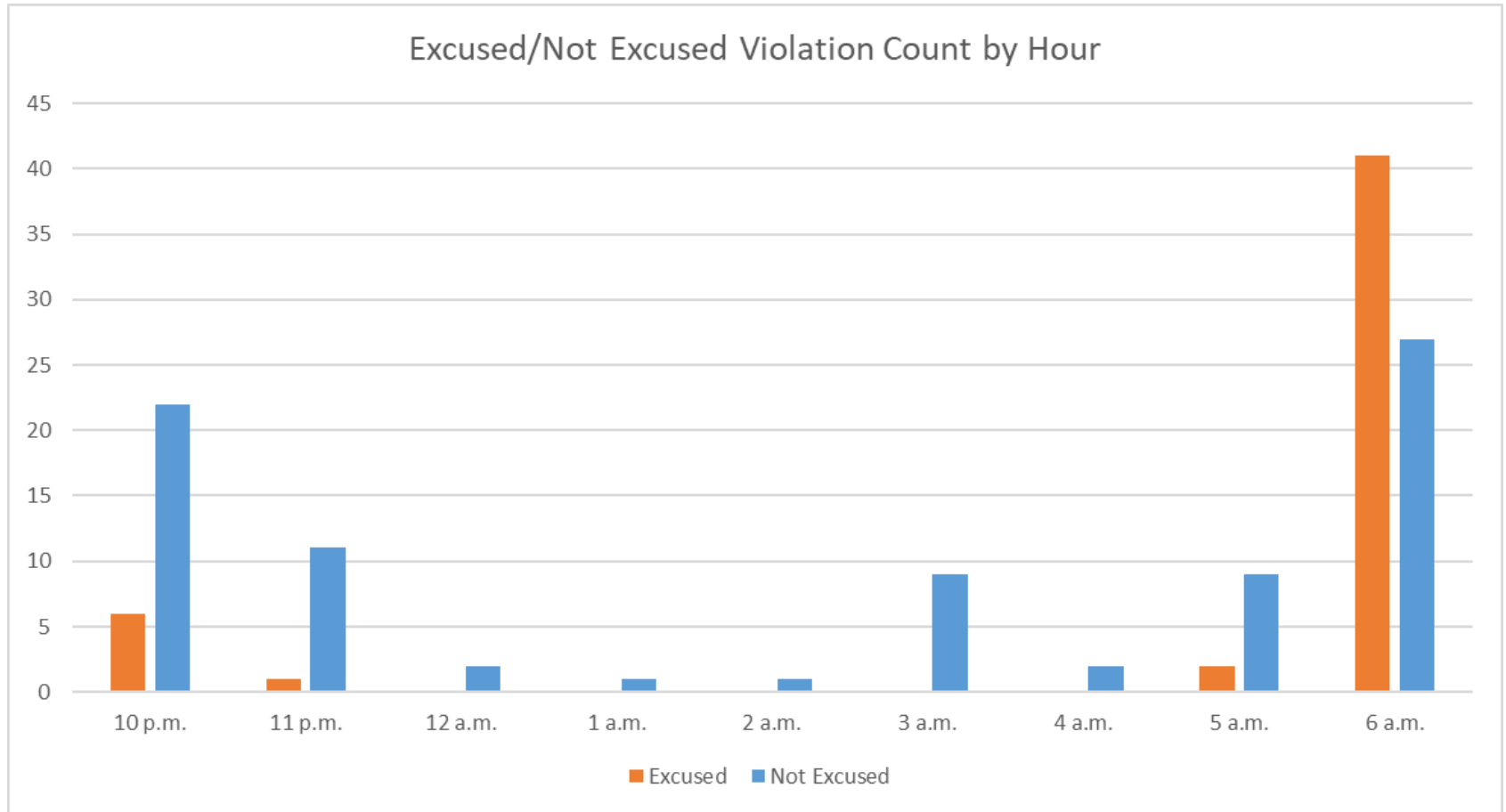
**2018Q4\***  
**97% Compliance**  
**(3,162 total departures)**  
**(84 non-compliant)**

\*REBAS Gate non-compliant = 81

**2017Q4**  
**99% Compliance**  
**(3,688 total departures)**  
**(50 non-compliant)**

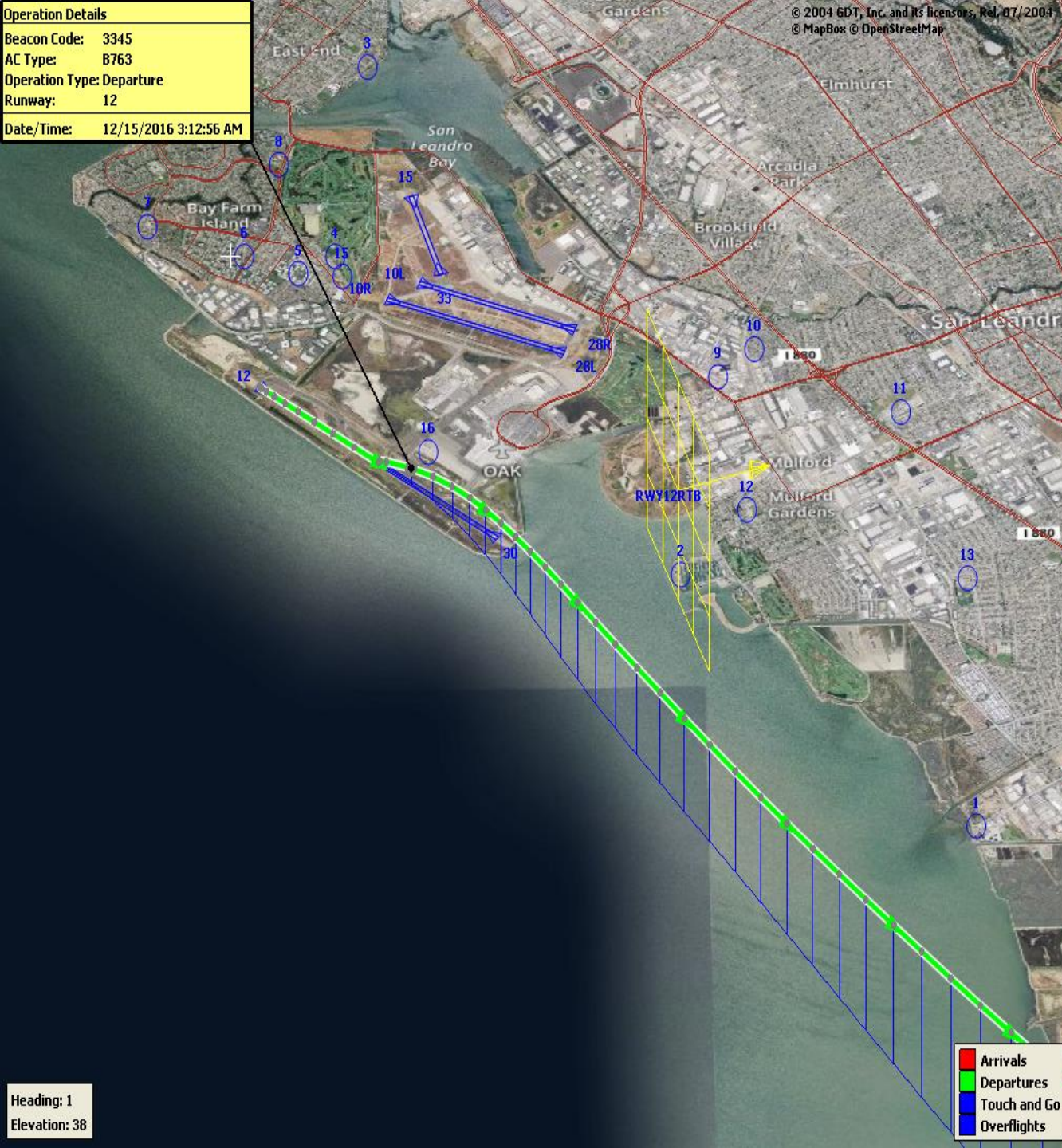


# Night Time NAP Non-Compliant Count by Hour



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



Arrivals  
Departures  
Touch and Go  
Overflights

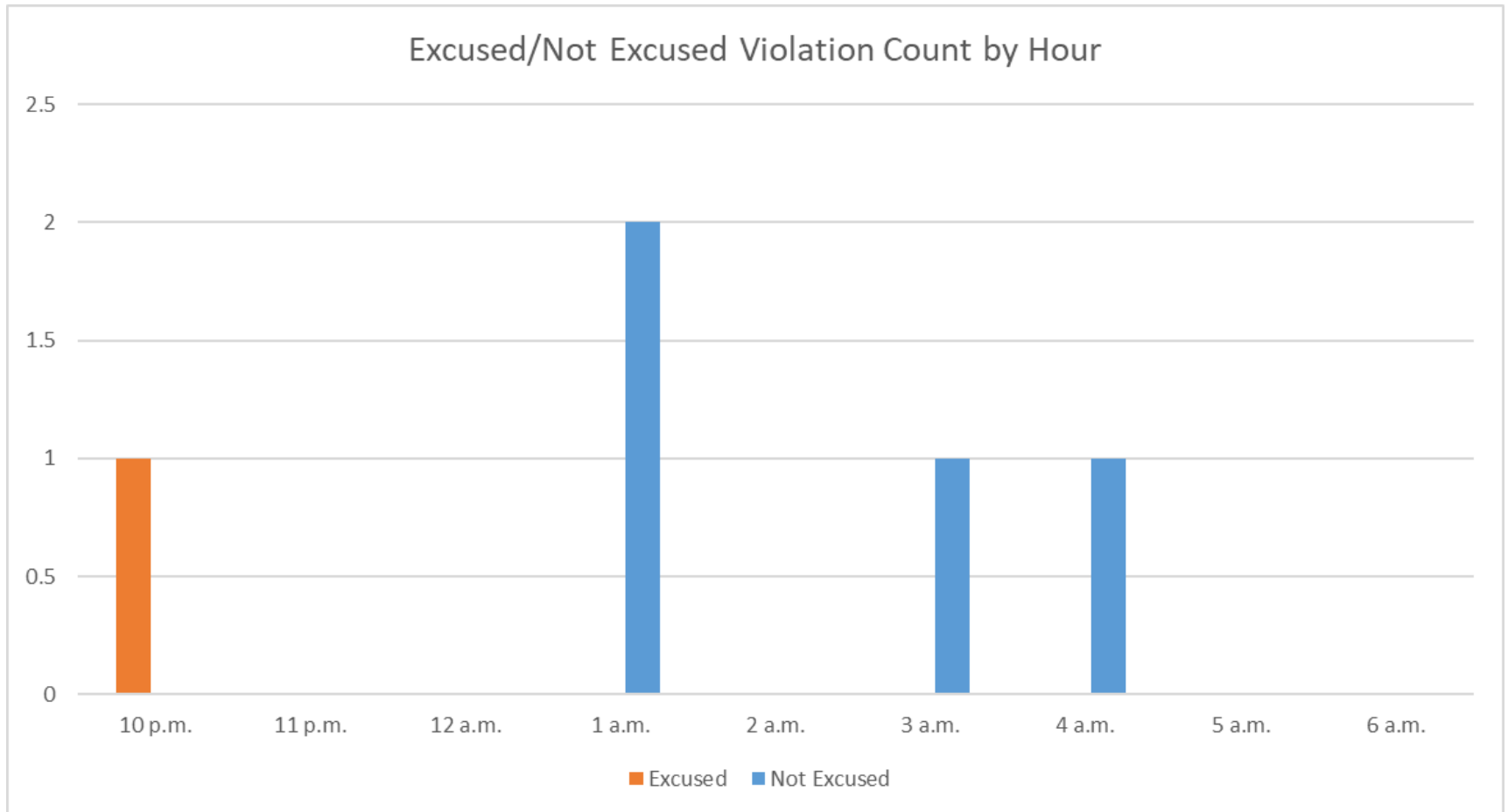
## Runway 12 Night Departure NAP

**2018Q4**  
**98% Compliance**  
**(191 total departures)**  
**(4 non-compliant)**

**2017Q4**  
**86% Compliance**  
**(153 total departures)**  
**(22 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

**2018Q4**  
**100% Compliance**  
**(18,679 total departures)**  
**(70 non-compliant)**

**2017Q4**  
**100% Compliance**  
**(18,846 total departures)**  
**(1 non-compliant)**

Heading: 299  
Elevation: 36





## Runway 30 East Turn NAP

**2018Q4**  
**99% Compliance**  
**(5,762 total departures)**  
**(52 non-compliant)**

\*2018Q4 Excused Departures = 44

**2017Q4**  
**100% Compliance**  
**(5,772 total departures)**  
**(8 non-compliant)**

### Operation Details

Beacon Code: 3777

AC Type: B737

Operation Type: Departure

Runway: 30

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

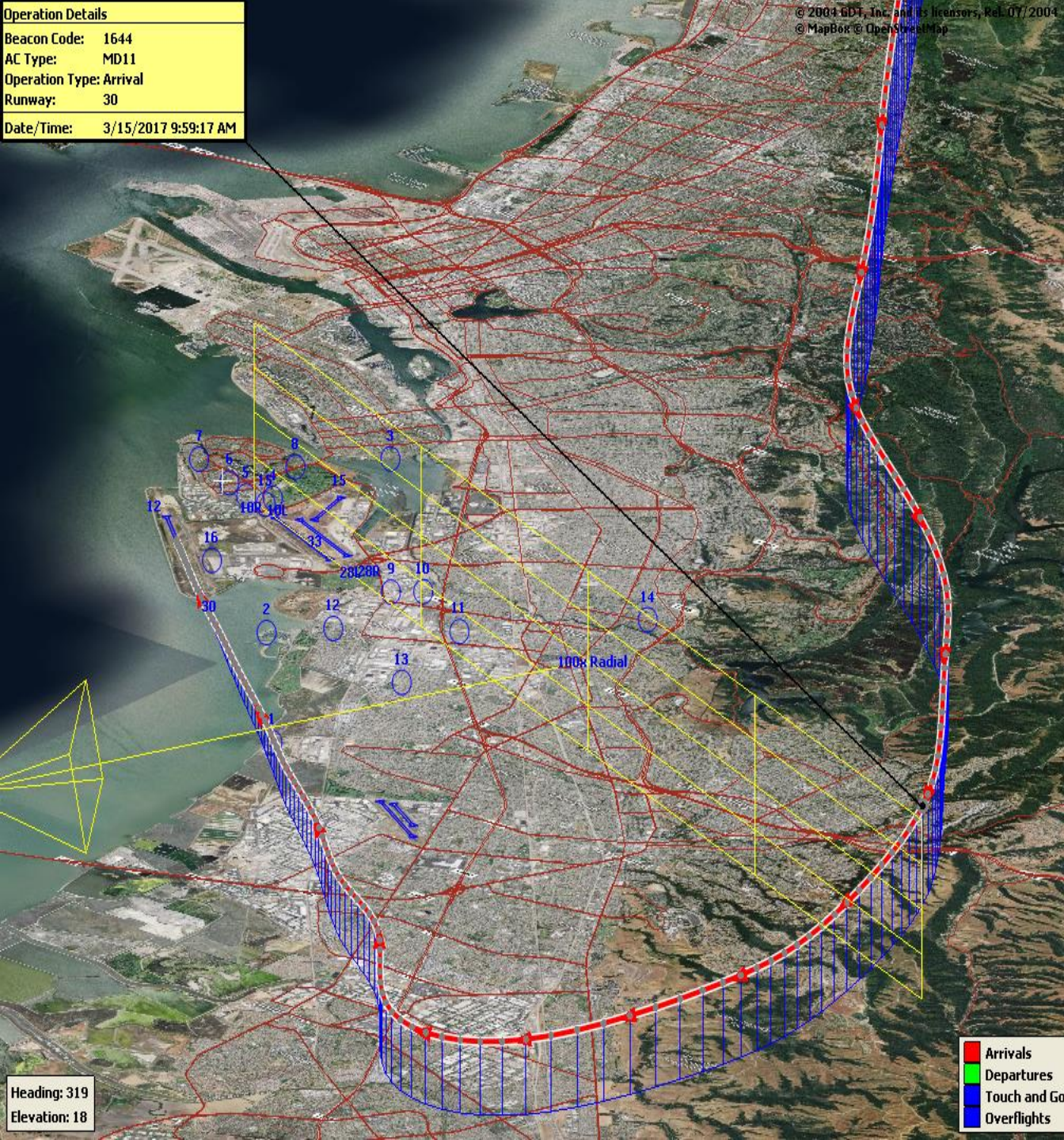
Alameda Rwy 30





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

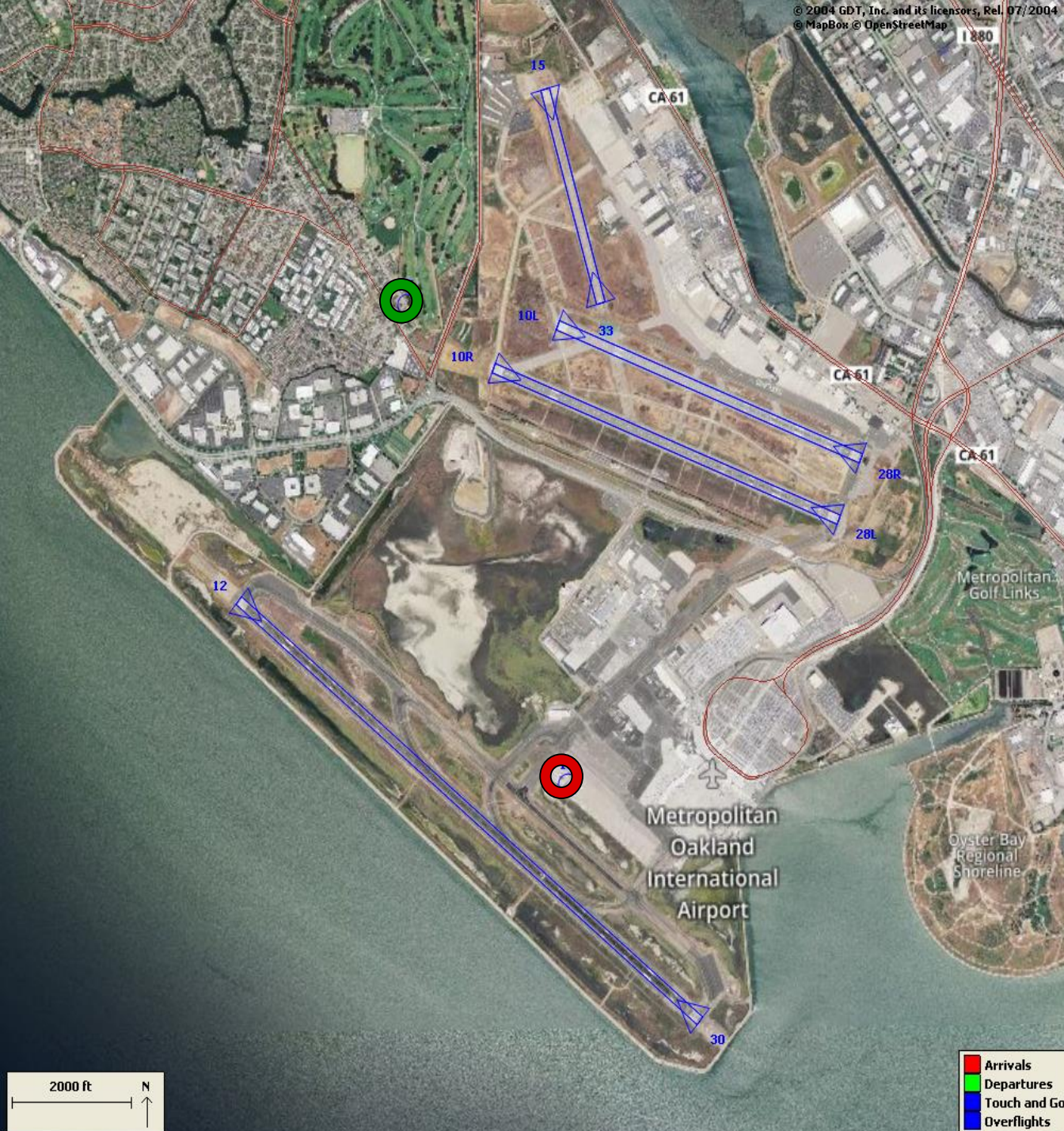
**2018Q4**  
**99% Compliance**  
**(1,419 total landings)**  
**(11 non-compliant)**

**2017Q4**  
**99% Compliance**  
**(3,074 total landings)**  
**(46 non-compliant)**

Heading: 319  
Elevation: 18

- Arrivals
- Departures
- Touch and Go
- Overflights





## Engine Run-up NAP

**2018Q4**

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

**2017Q4**

**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 = 109**

**Fourth 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	4	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	5
3	13	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	14
4	10	18	0.2	3.2%	6	0.1	1.1%	4	0.0	0.7%	38
5	13	9	0.1	1.6%	4	0.0	0.7%	9	0.1	1.6%	35
6	6	3	0.0	0.5%	4	0.0	0.7%	5	0.1	0.9%	18
7	3	3	0.0	0.5%	6	0.1	1.1%	0	0.0	0.0%	12
8	6	6	0.1	1.1%	1	0.0	0.2%	0	0.0	0.0%	13
9	4	6	0.1	1.1%	3	0.0	0.5%	1	0.0	0.2%	14
10	13	7	0.1	1.2%	2	0.0	0.4%	0	0.0	0.0%	22
11	0	4	0.0	0.7%	0	0.0	0.0%	0	0.0	0.0%	4
12	7	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	8
13	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
14	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
<b>All NMTs</b>	83	59	1	0	26	0	0	19	0	0	187



**Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 92**

**Fourth 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	13	1	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	14
4	10	18	0.2	7.5%	6	0.1	2.5%	4	0.0	1.7%	38
5	13	9	0.1	3.8%	4	0.0	1.7%	9	0.1	3.8%	35
6	6	3	0.0	1.3%	4	0.0	1.7%	5	0.1	2.1%	18
7	3	3	0.0	1.3%	6	0.1	2.5%	0	0.0	0.0%	12
8	6	6	0.1	2.5%	1	0.0	0.4%	0	0.0	0.0%	13
<b>Total</b>	<b>51</b>	<b>40</b>	<b>0.4</b>		<b>21</b>	<b>0.2</b>		<b>18</b>	<b>0.2</b>		<b>130</b>

**Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 17**

**Fourth 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	4	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	5
9	4	6	0.1	1.8%	3	0.0	0.9%	1	0.0	0.3%	14
10	13	7	0.1	2.1%	2	0.0	0.6%	0	0.0	0.0%	22
11	0	4	0.0	1.2%	0	0.0	0.0%	0	0.0	0.0%	4
12	7	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	8
13	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
14	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
<b>Total</b>	<b>32</b>	<b>19</b>	<b>0.2</b>		<b>5</b>	<b>0.1</b>		<b>1</b>	<b>0.0</b>		<b>57</b>

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)**  
**Fourth 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
Fourth Quarter 2018 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	129	43	45	65	74
DC10/MD10	33	11	20	66	75
MD11	238	79	173	67	77
A306	96	32	51	65	74
B757	172	57	76	65	75
B77L	76	25	27	66	74
Difference [A-B]					
DC10/MD10		-76	-12	-3	-3
MD11		47	160	-3	-2
A306		-35	30	-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)



**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)  
Fourth 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	
Fourth Quarter 2017 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	135	45	38	65	74	15
DC10/MD10	72	24	38	66	76	18
MD11	249	83	178	68	77	20
A306	87	29	41	66	75	17
B757	192	64	83	66	75	16
B77L	72	24	22	66	75	17
Difference [A-B]						
DC10/MD10		-63	6	-3	-2	-4
MD11		51	165	-2	-2	-4
A306		-38	20	-1	-2	-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)

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

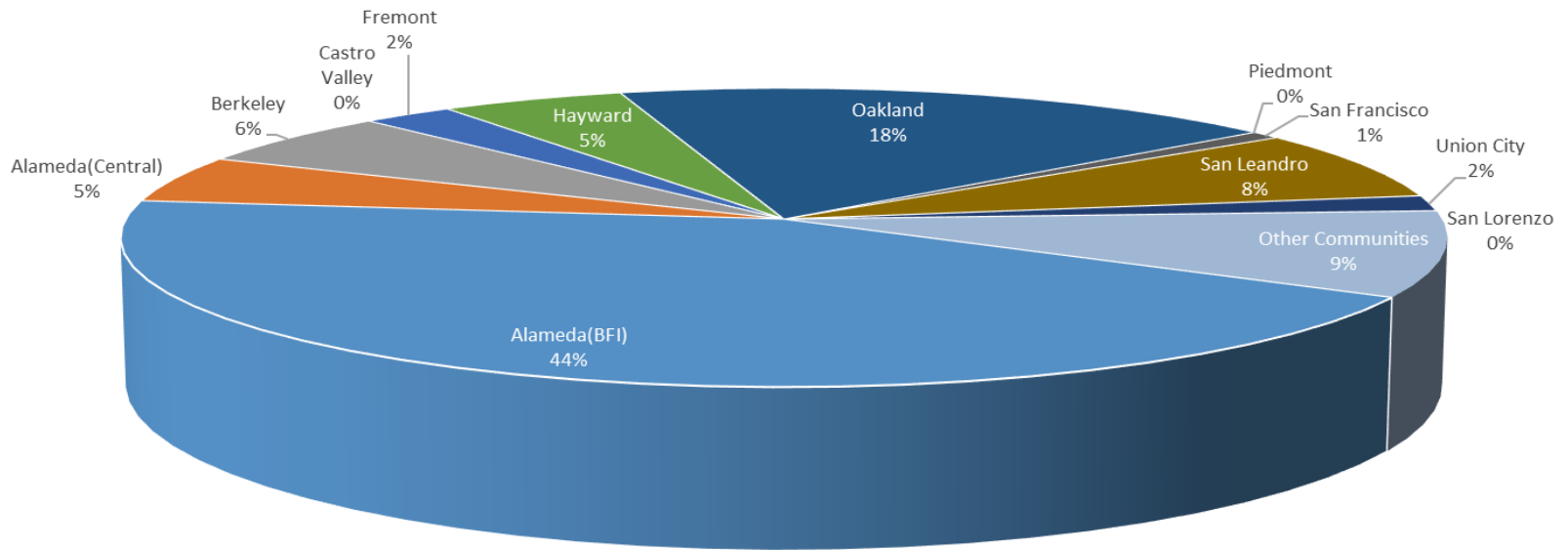
Community	Callers	Complaints
Alameda(BFI)	52	255
Alameda(Central)	6	10
Berkeley	7	45
Castro Valley	0	0
Fremont	3	4
Hayw ard	6	201
Oakland	22	5434
Piedmont	0	0
San Francisco	1	1
San Leandro	9	30
Union City	2	1751
San Lorenzo	0	0
Other Communities	11	68
Total	119	7799
Complaints by Type		
Website	699	
E-mail	7003	
Phone	97	
Complaints by Time of Day		
Day ( 0700 - 1900 )	2063	
Evening ( 1900 - 2200 )	303	
Night ( 2200 - 0700 )	5433	
Complaints by Type of Operation		
Arrivals	6298	
Departures	1471	
Over-flights	5	
Touch & Go	25	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	379	
Helicopter	14	
Jet	7228	
Military	2	
Not Reported	0	
Other	36	
Propeller	63	
Turbo-prop	77	



# Number of Callers

## October 2018

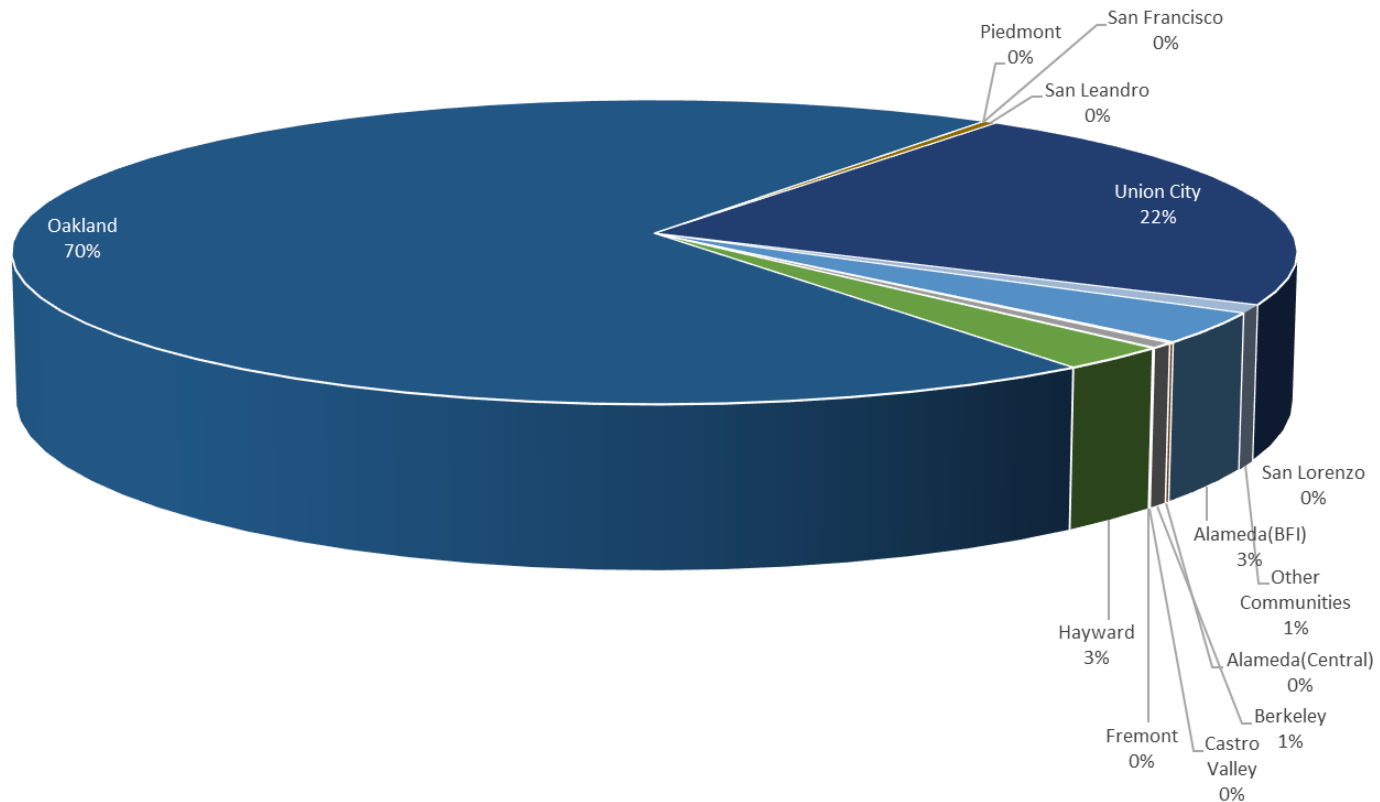
Noise Complaints Summary by Number of Callers



# Number of Complaints

## October 2018

Noise Complaints Summary by Number of Complaints





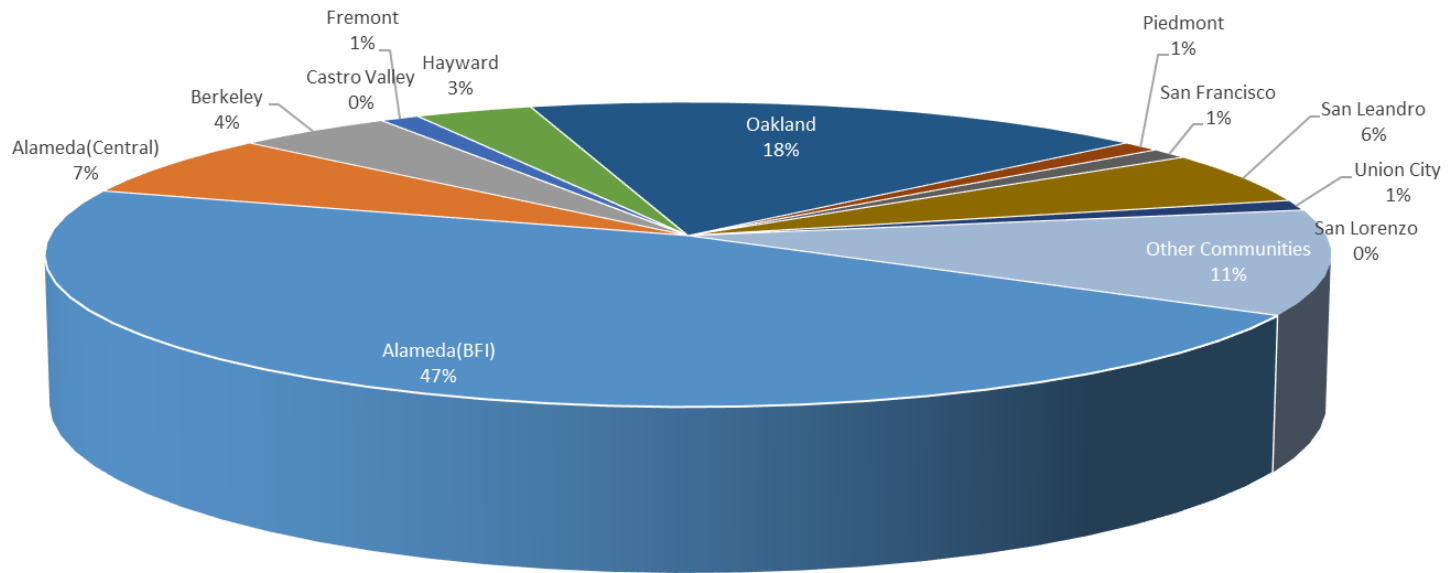
**Oakland International Airport  
Noise Complaint Summary  
November 2018**

Community	Callers	Complaints
Alameda(BFI)	42	154
Alameda(Central)	6	42
Berkeley	4	9
Castro Valley	0	0
Fremont	1	1
Hayw ard	3	367
Oakland	16	4474
Piedmont	1	2
San Francisco	1	2
San Leandro	5	13
Union City	1	6
San Lorenzo	0	0
Other Communities	10	34
Total	90	5104
Complaints by Type		
Website	301	
E-mail	4765	
Phone	38	
Complaints by Time of Day		
Day ( 0700 - 1900 )	598	
Evening ( 1900 - 2200 )	839	
Night ( 2200 - 0700 )	3667	
Complaints by Type of Operation		
Arrivals	4580	
Departures	521	
Over-flights	2	
Touch & Go	1	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	122	
Helicopter	6	
Jet	4863	
Military	0	
Not Reported	0	
Other	11	
Propeller	49	
Turbo-prop	53	

# Number of Callers

## November 2018

Noise Complaints Summary by Number of Callers

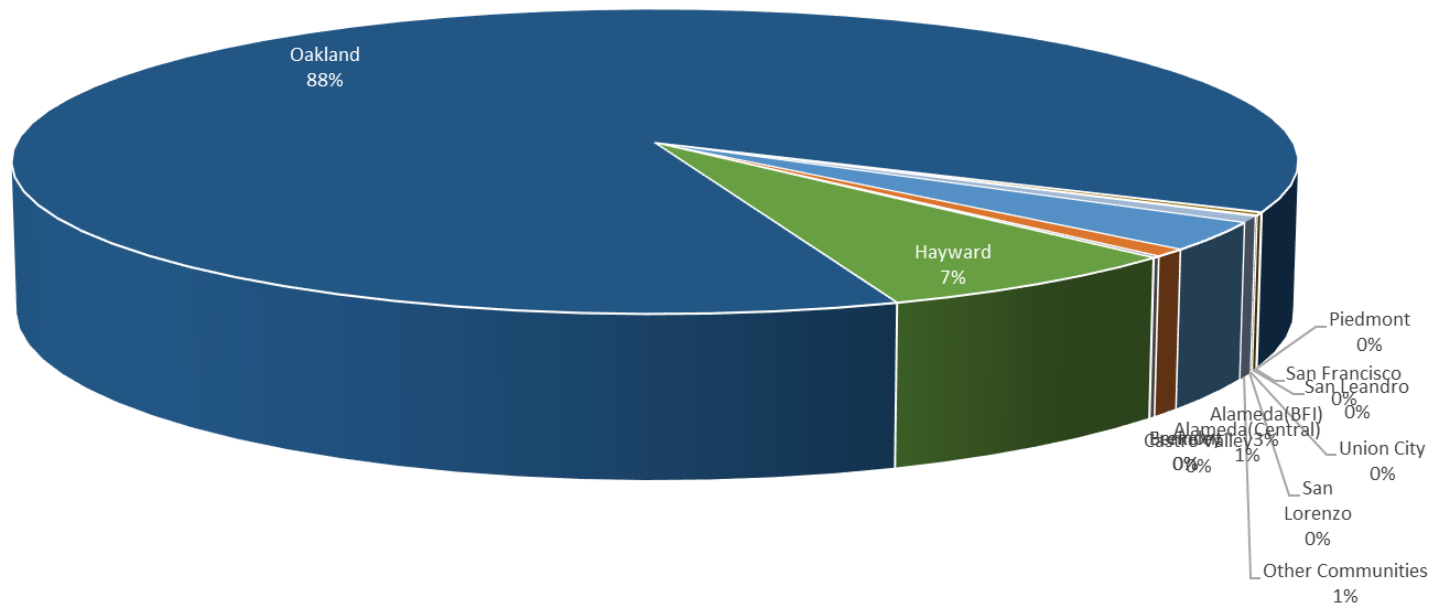




# Number of Complaints

## November 2018

Noise Complaints Summary by Number of Complaints



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

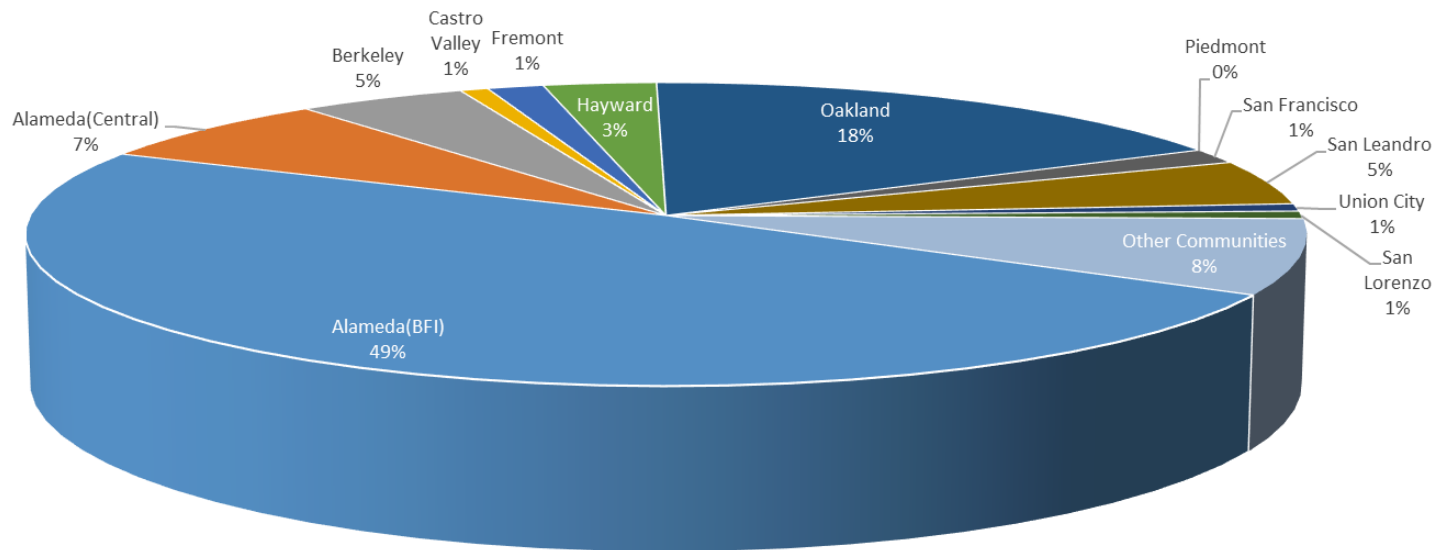
Community	Callers	Complaints
Alameda(BFI)	61	287
Alameda(Central)	9	32
Berkeley	6	16
Castro Valley	1	1
Fremont	2	7
Hayw ard	4	313
Oakland	22	3777
Piedmont	0	0
San Francisco	2	8
San Leandro	6	33
Union City	1	552
San Lorenzo	1	4
Other Communities	10	75
Total	125	5105
Complaints by Type		
Website	513	
E-mail	4553	
Phone	39	
Complaints by Time of Day		
Day ( 0700 - 1900 )	1185	
Evening ( 1900 - 2200 )	809	
Night ( 2200 - 0700 )	3111	
Complaints by Type of Operation		
Arrivals	4099	
Departures	989	
Over-flights	4	
Touch & Go	13	
Not Linked to an Operation	0	
Complaints by Type of Aircraft		
Business Jet	277	
Helicopter	8	
Jet	4738	
Military	0	
Not Reported	0	
Other	7	
Propeller	48	
Turbo-prop	27	



# Number of Callers

## December 2018

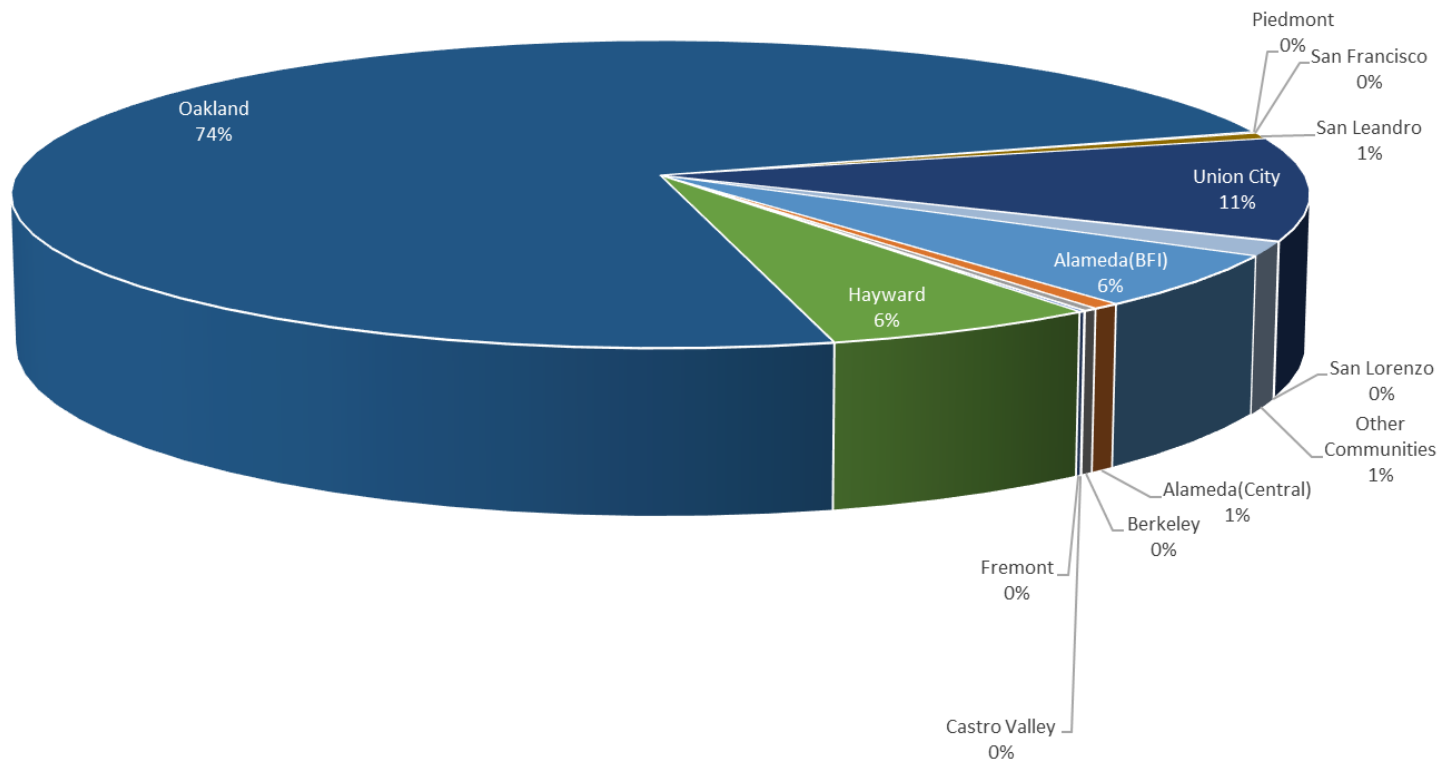
Noise Complaints Summary by Number of Callers

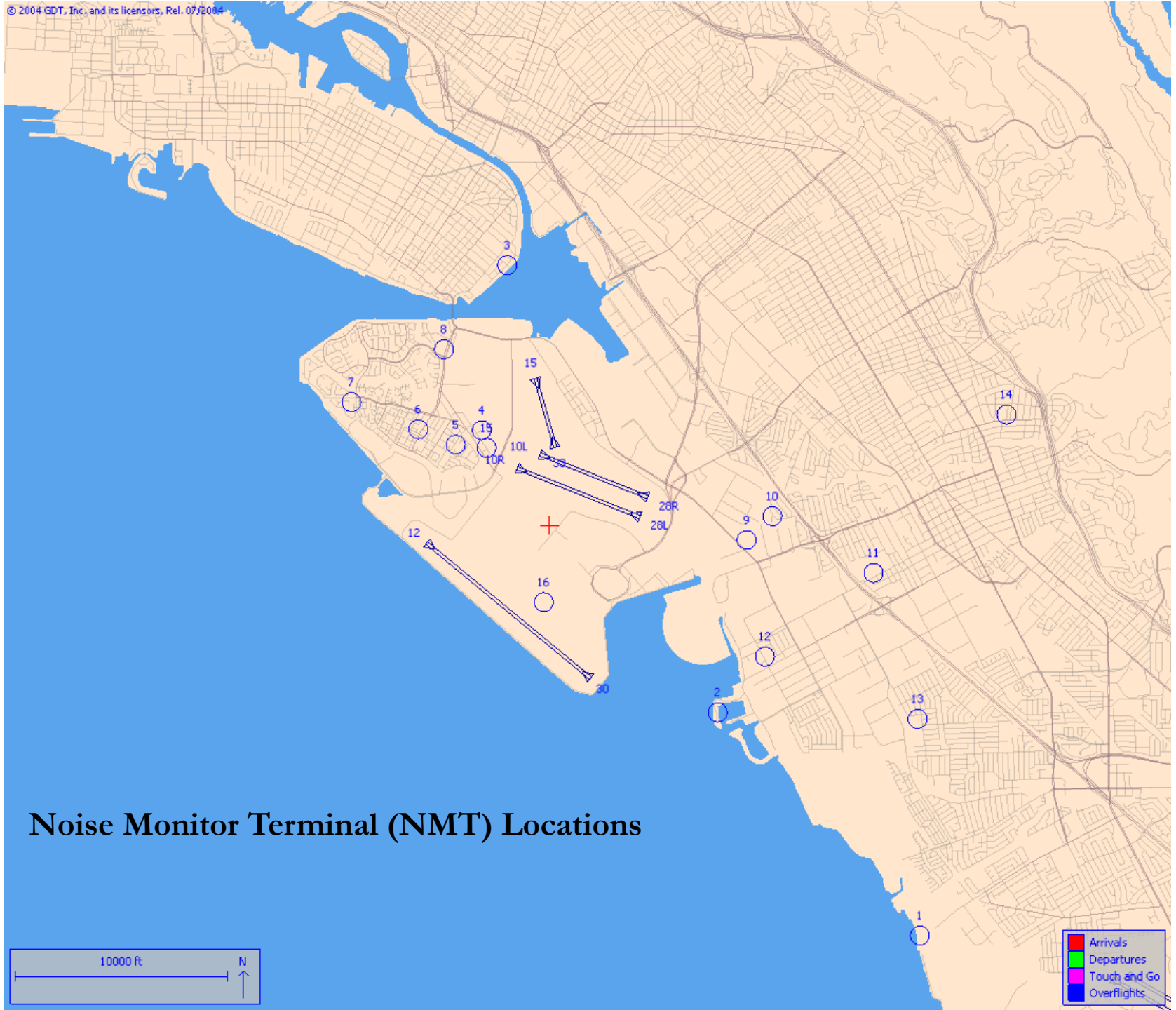


# Number of Complaints

## December 2018

Noise Complaints Summary by Number of Complaints





## Noise Monitor Terminal (NMT) Locations