

# **NOISE FORUM SUMMARY**

**North/South Field Working Groups**

**NOISE ABATEMENT REPORT**

**THIRD QUARTER 2019**

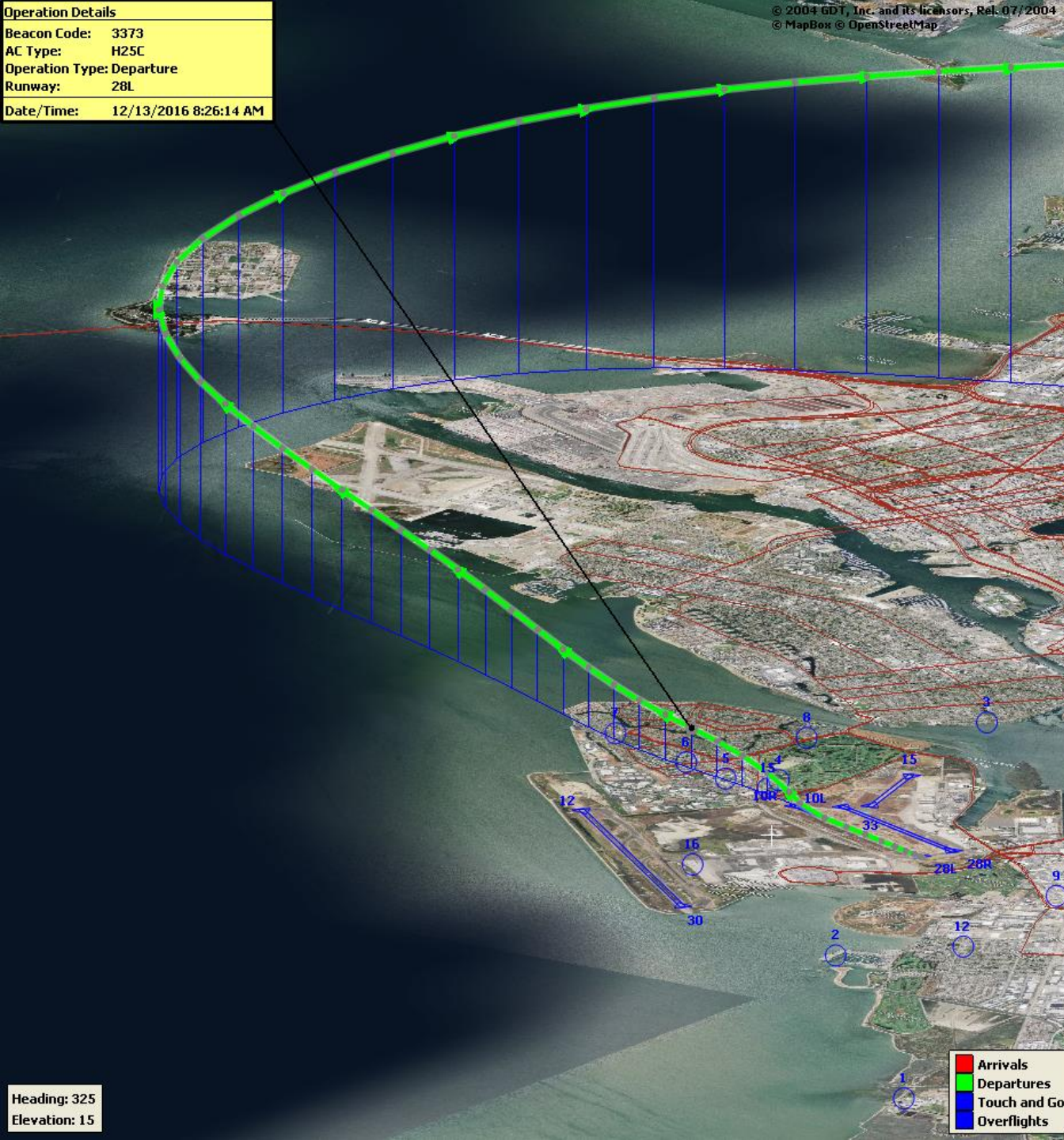
**Compliance Monitoring Quarterly Summary Comparison  
Third Quarter 2019**

	2018Q3		2019Q3	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	94%	6%	95%	5%
Total Airport-wide Corporate Jet Departures	2,635	167	2,917	141
Runway 10R/L Jet Landing Compliance	44%	56%	100%	0%
Total Southeast Plan Corporate Jet Landings	4	5	0	0
North Field VFR Departure Compliance	93%	7%	96%	4%
Total Runways 28R/L & 33 Departures	375	30	325	14
North Field Quiet Hours Compliance	69%	31%	75%	25%
Total North Field Quiet Hours Departures	221	97	219	72
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	20,436	4	21,252	5
Night Time Departure Compliance	98%	2%	93%	7%
Total Runway 30 Night Turbojet Departures	3,814	78	3,748	266
Runway 12 Night Departure Compliance	100%	0%	100%	0%
Total Runway 12 Night Turbojet Departures	0	0	0	0
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	6,647	3	5,981	13
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	1%
Total 100 Degree Radial Turbojet Landings	1,294	9	1,381	14
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	26	0	11	0

Note: N/C means non-compliant. Percentage values are rounded out.

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

**2019Q3**  
**95% Compliance**  
**(3,058 total departures)**  
**(141 non-compliant)**

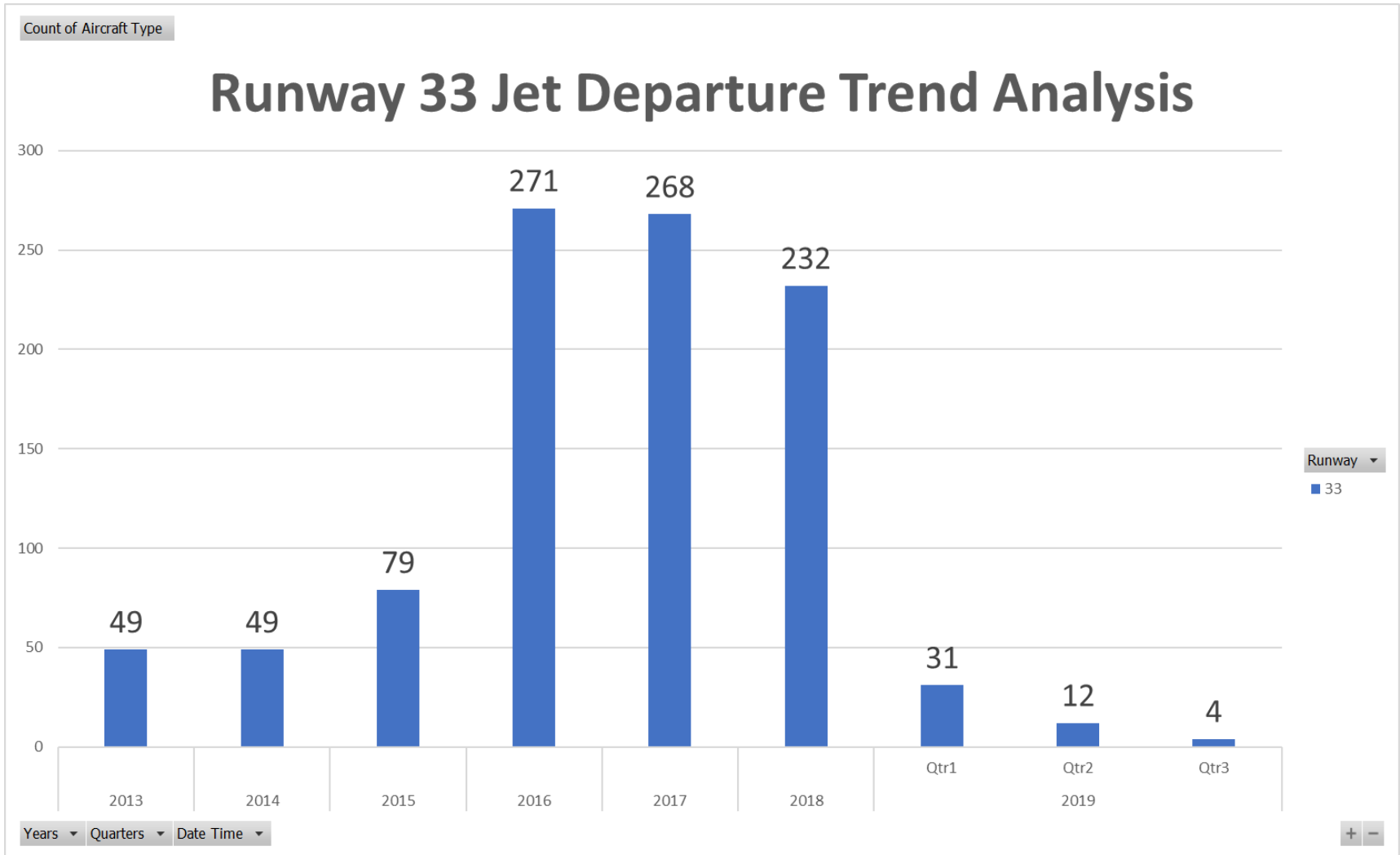
**2018Q3**  
**94% Compliance**  
**(2,802 total departures)**  
**(167 non-compliant)**

- Arrivals
- Departures
- Touch and Go
- Overflights

Heading: 325  
 Elevation: 15

# RUNWAY 33 JET DEPARTURES

## Third Quarter 2019





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

**2019Q3**  
**100% Compliance**  
**(0 total landings)**  
**(0 non-compliant)**

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

Heading: 325  
 Elevation: 15

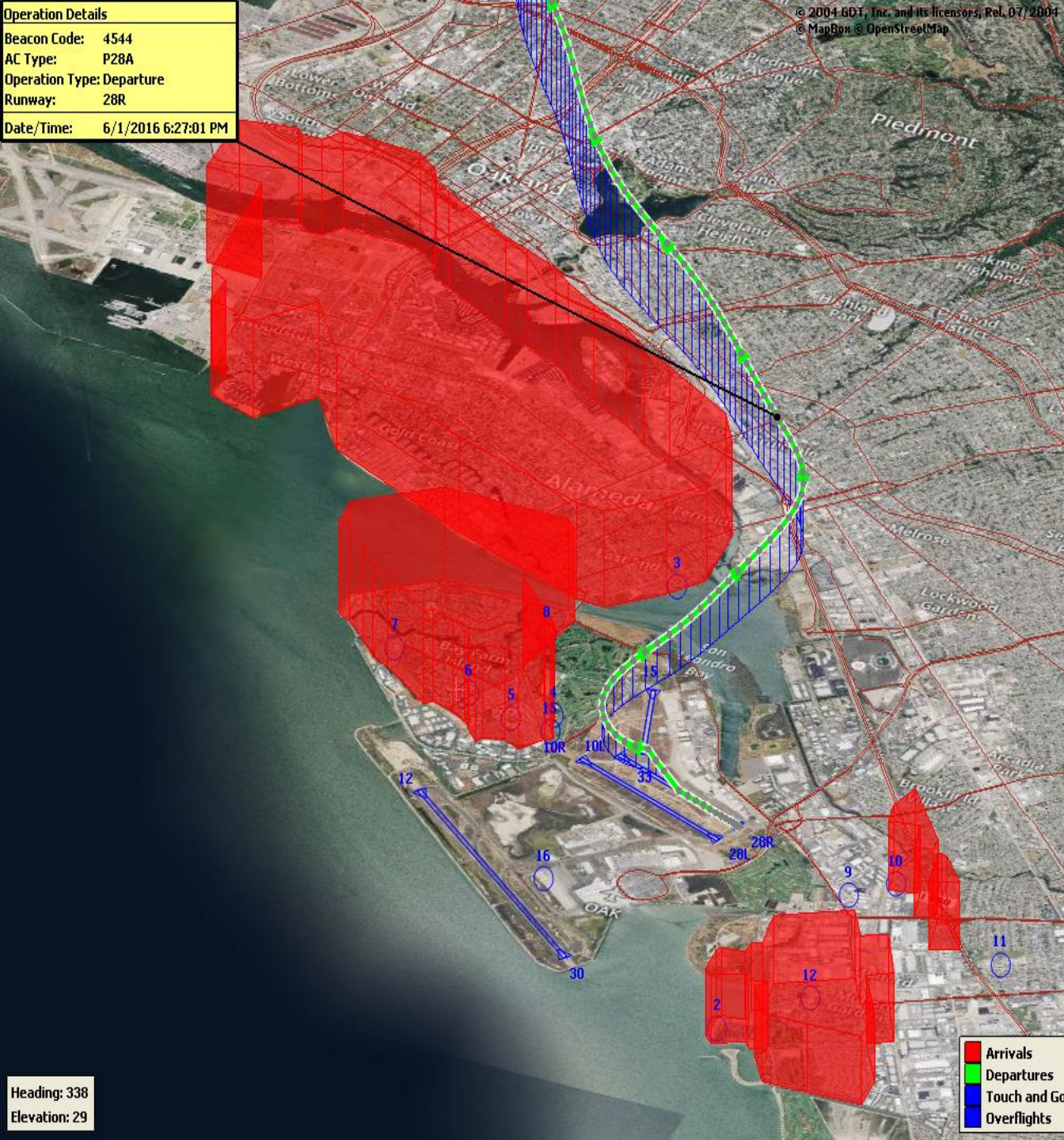
Arrivals	Red
Departures	Green
Touch and Go	Blue
Overflights	Blue





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

**2019Q3**  
**96% Compliance**  
**(339 total departures)**  
**(14 non-compliant)**

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

<span style="color: red;">■</span>	Arrivals
<span style="color: green;">■</span>	Departures
<span style="color: blue;">■</span>	Touch and Go
<span style="color: blue;">■</span>	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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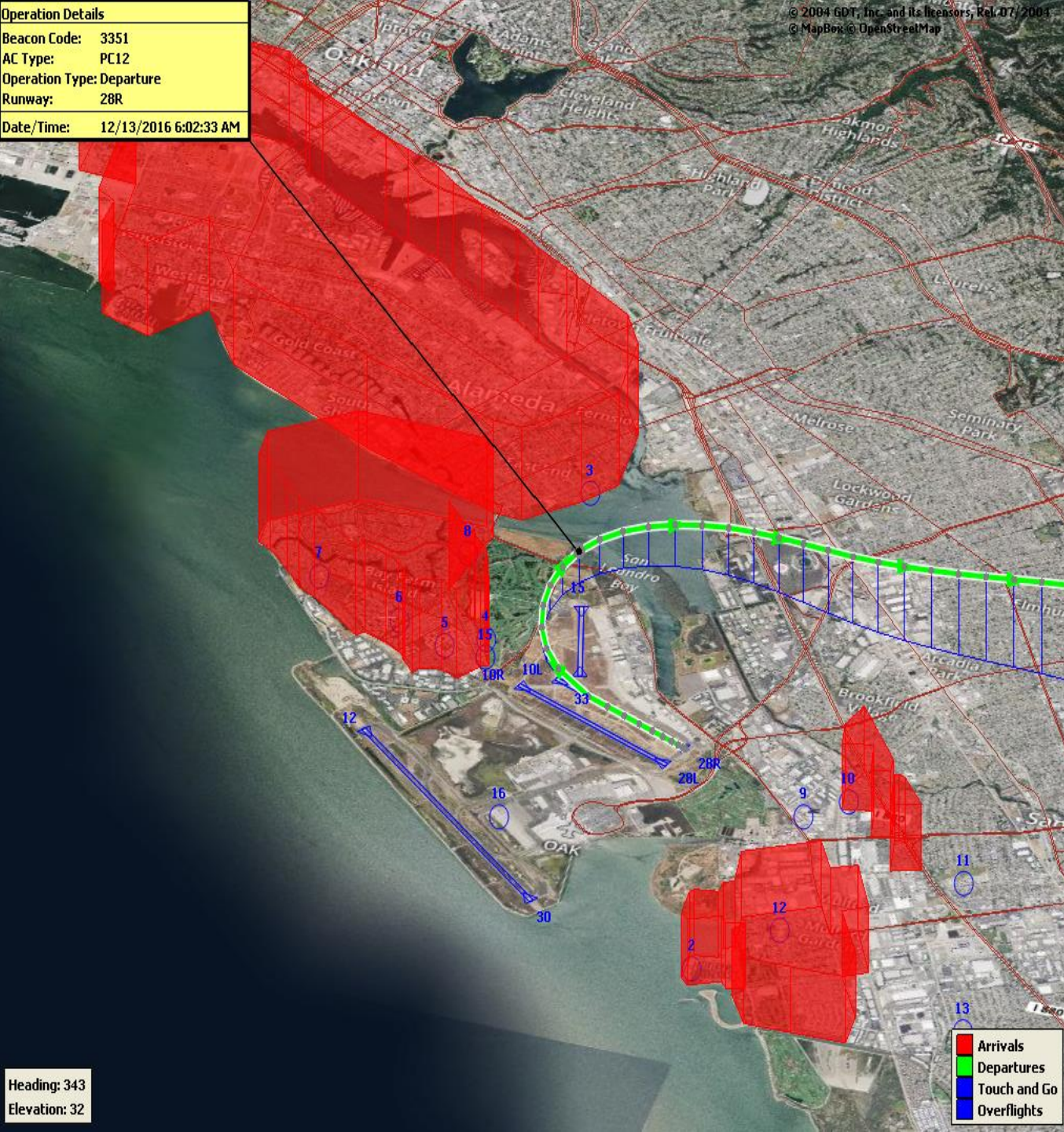
# North Field Quiet Hours NAP

**2019Q3**  
**75% Compliance**  
**(291 total departures)**  
**(72 non-compliant)**

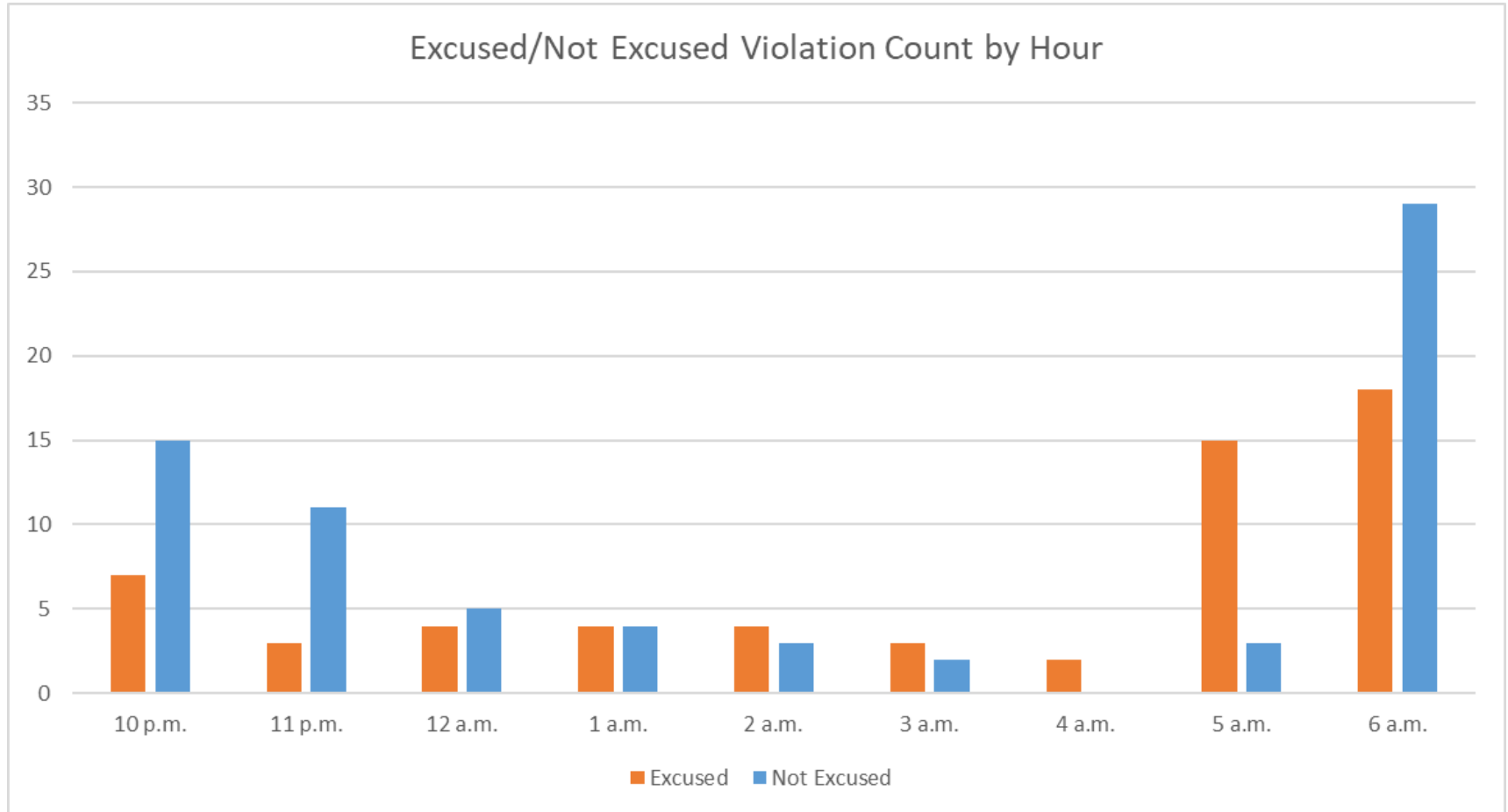
**2018Q3**  
**69% Compliance**  
**(318 total departures)**  
**(97 non-compliant)**

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

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# Night Time Departure NAP

**2019Q3**  
**93% Compliance**  
**(4,014 total departures)**  
**(266 non-compliant)**

\*REBAS Gate non-compliant = 259

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

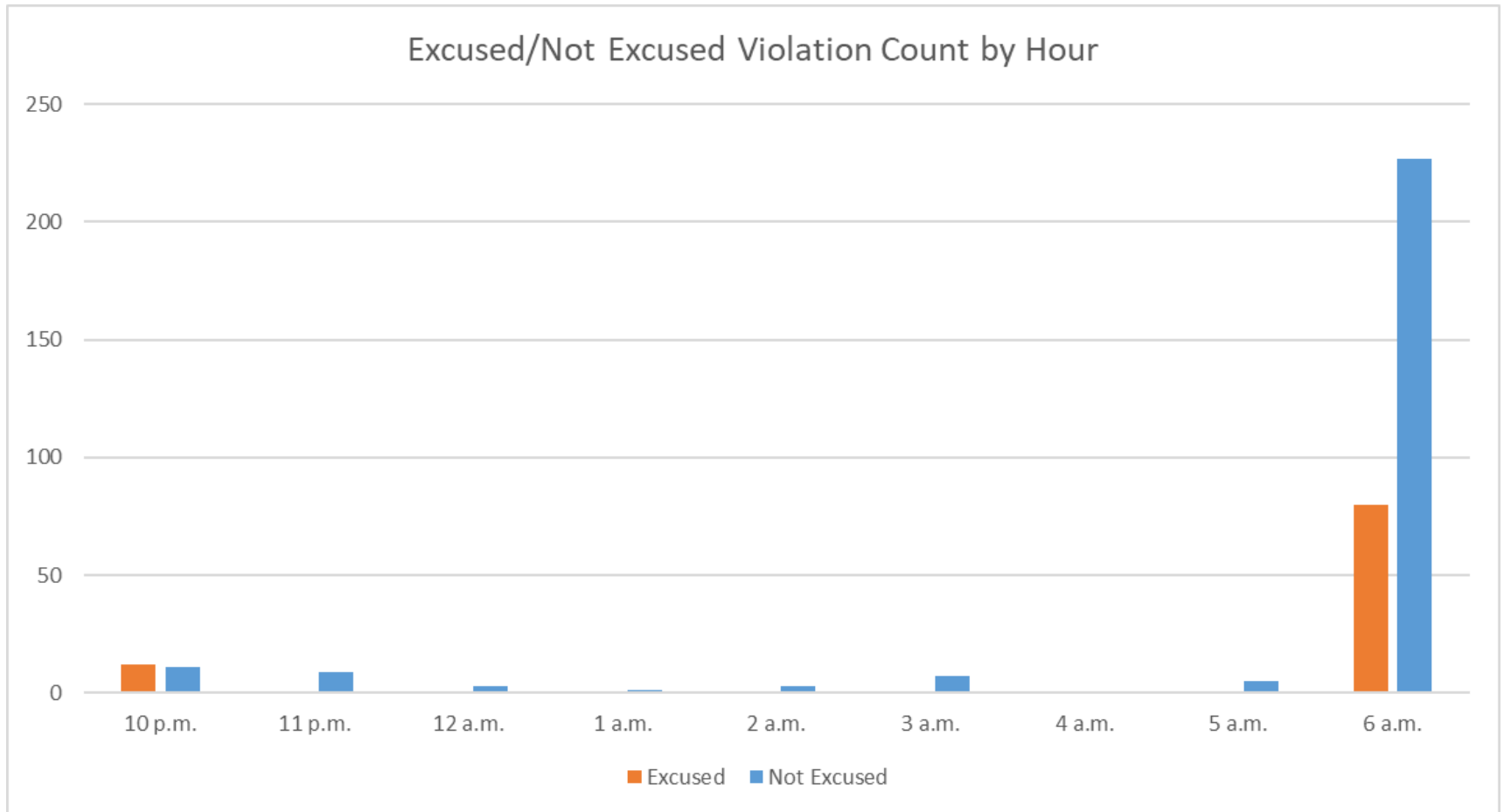
\*SFO Runway work  
 Quiet Hours ended at 6:00 am  
 instead of 7:00 am

Heading: 349  
 Elevation: 59

	Arrivals
	Departures
	Touch and Go
	Overflights

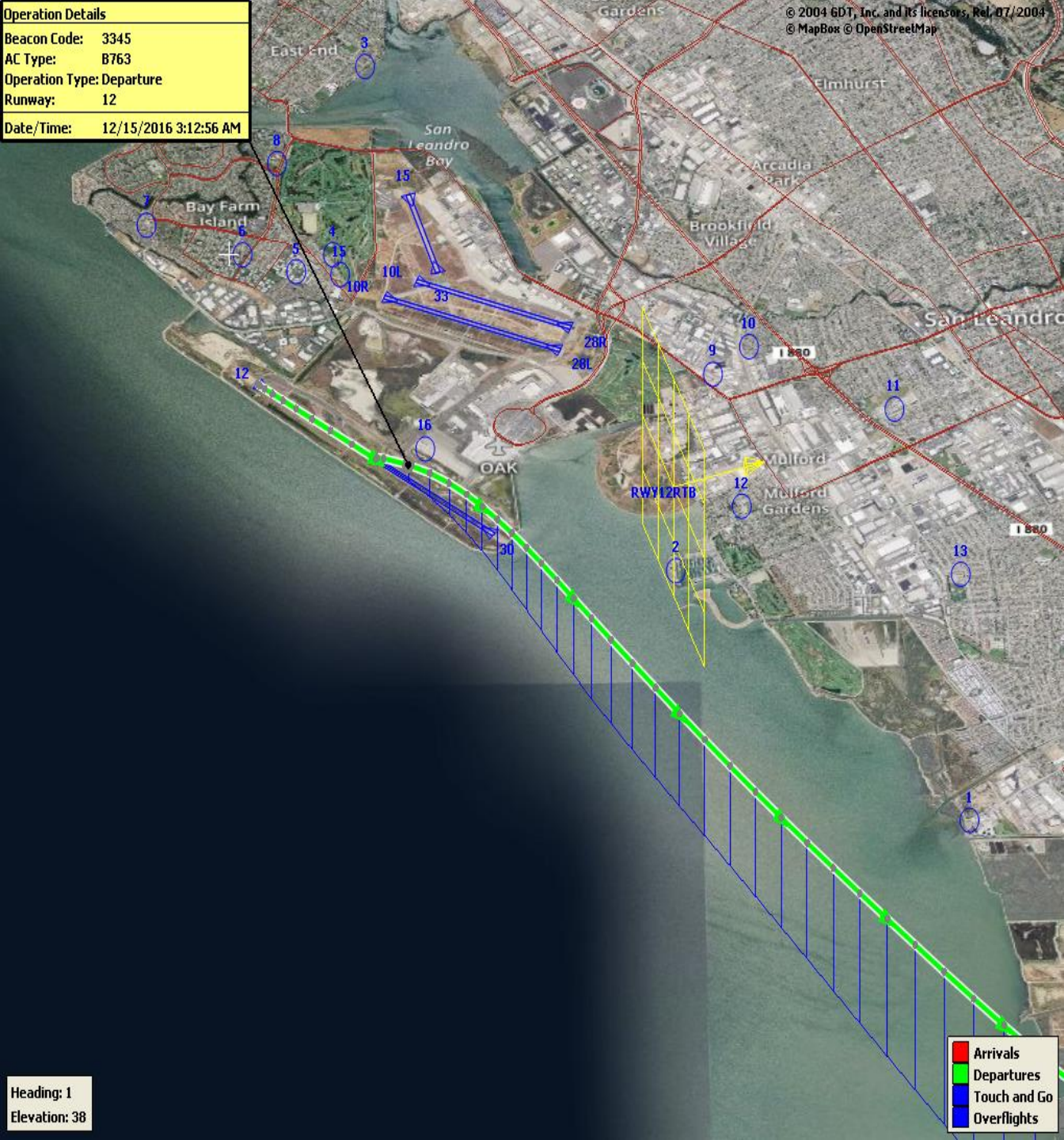


# Night Time NAP Non-Compliant Count by Hour





**Operation Details**  
Beacon Code: 3345  
AC Type: B763  
Operation Type: Departure  
Runway: 12  
Date/Time: 12/15/2016 3:12:56 AM



## Runway 12 Night Departure NAP

**2019Q3**  
**100% Compliance**  
**(0 total departures)**  
**(0 non-compliant)**

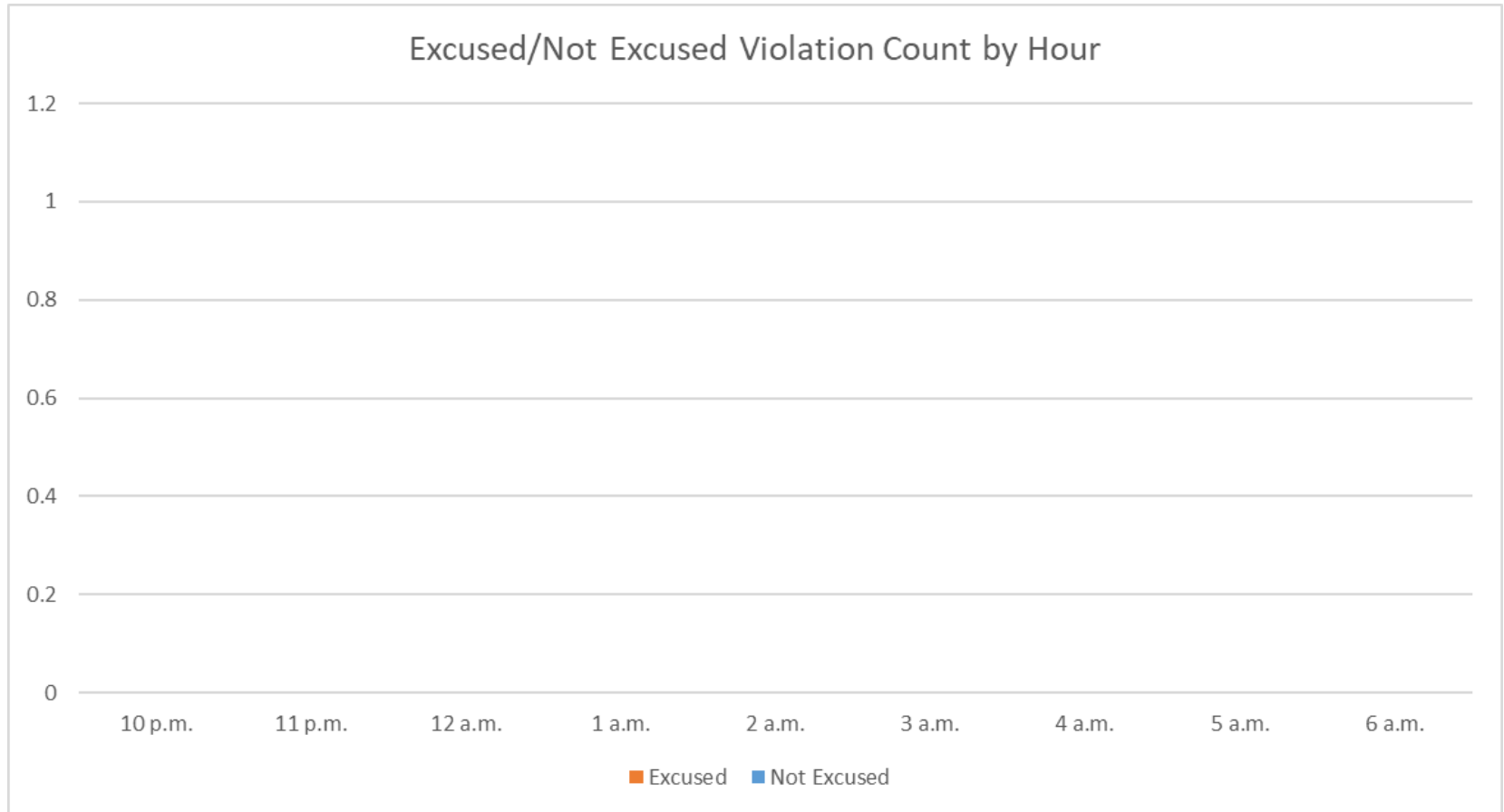
**2018Q3**  
**100% Compliance**  
**(0 total departures)**  
**(0 non-compliant)**

Heading: 1  
Elevation: 38

**Arrivals**  
**Departures**  
**Touch and Go**  
**Overflights**



# 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

**2019Q3**  
**100% Compliance**  
**(21,257 total departures)**  
**(5 non-compliant)**

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

Heading: 299  
 Elevation: 36

<span style="color: red;">▶</span>	Arrivals
<span style="color: green;">▶</span>	Departures
<span style="color: blue;">▶</span>	Touch and Go
<span style="color: blue;">▶</span>	Overflights



# Runway 30 East Turn NAP

**2019Q3**  
**100% Compliance**  
**(5,994 total departures)**  
**(13 non-compliant)**

\*2019Q3 Excused Departures = 94

**2018Q3**  
**100% Compliance**  
**(6,650 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

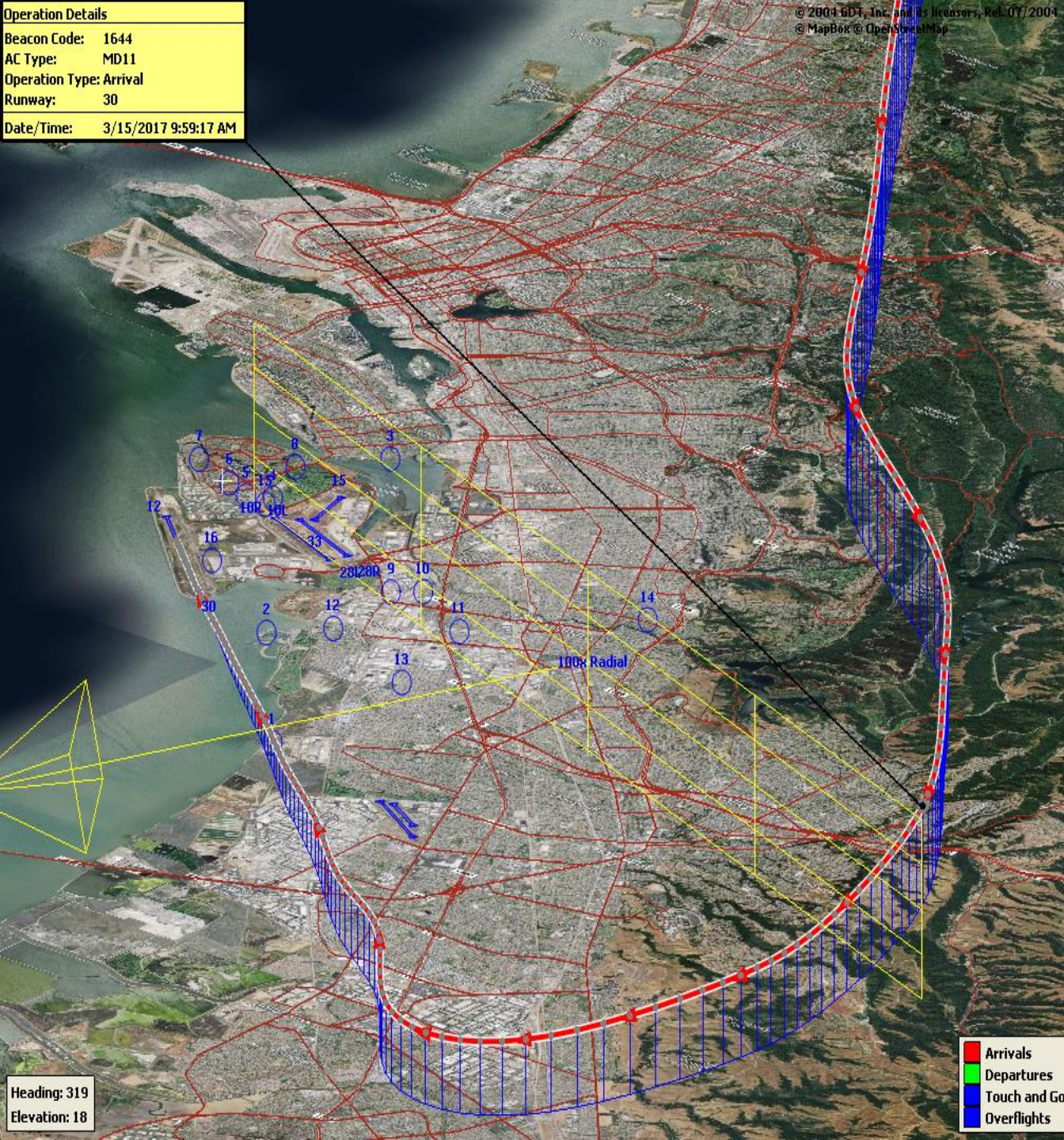
Arrivals  
Departures  
Touch and Go  
Overflights





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

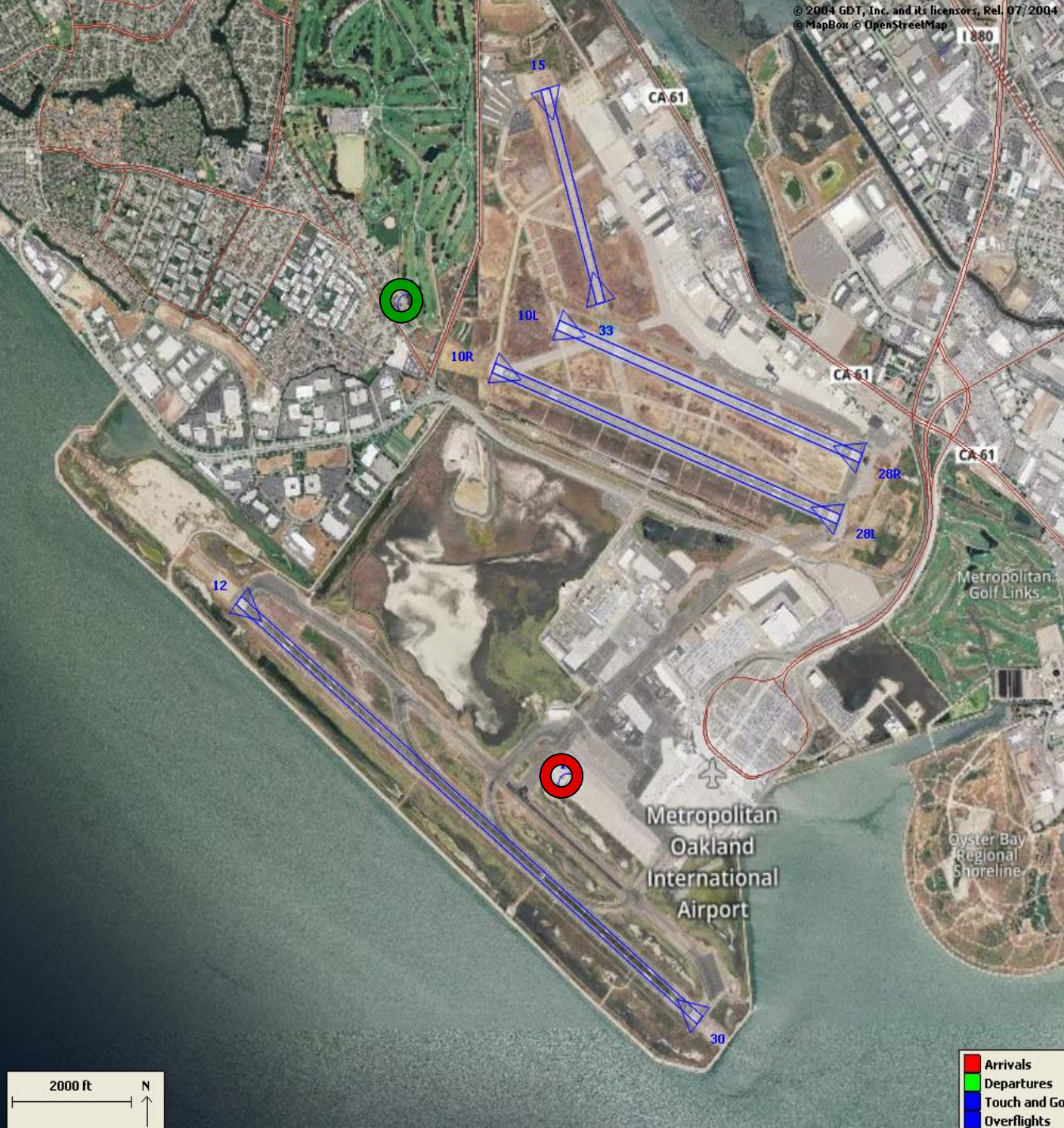
**2019Q3**  
**99% Compliance**  
**(1,395 total landings)**  
**(14 non-compliant)**

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

<span style="color: red;">■</span>	Arrivals
<span style="color: green;">■</span>	Departures
<span style="color: blue;">■</span>	Touch and Go
<span style="color: blue;">■</span>	Overflights

Heading: 319  
Elevation: 18





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## Engine Run-up NAP

**2019Q3**  
**100% Compliance**  
**(11 engine run-ups)\***  
**(0 non-compliant)**

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

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

- Arrivals
- Departures
- Touch and Go
- Overflights

**Compliance Monitoring Quarterly Summary Comparison  
Third Quarter 2019 - Quarter-to-Quarter**

	2019Q2		2019Q3	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	96%	4%	95%	5%
Total Airport-wide Corporate Jet Departures	3,162	126	2,917	141
Runway 10R/L Jet Landing Compliance	83%	17%	100%	0%
Total Southeast Plan Corporate Jet Landings	84	14	0	0
North Field VFR Departure Compliance	94%	6%	96%	4%
Total Runways 28R/L & 33 Departures	294	19	325	14
North Field Quiet Hours Compliance	82%	18%	75%	25%
Total North Field Quiet Hours Departures	283	52	219	72
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	20,139	9	21,252	5
Night Time Departure Compliance	99%	1%	93%	7%
Total Runway 30 Night Turbojet Departures	4,190	43	3,748	266
Runway 12 Night Departure Compliance	100%	0%	100%	0%
Total Runway 12 Night Turbojet Departures	49	0	0	0
Runway 30 East Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 East Turn Departures	5,546	9	5,981	13
100 Degree Radial Turbojet Landing Compliance	99%	1%	99%	1%
Total 100 Degree Radial Turbojet Landings	1,329	9	1,381	14
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	9	0	11	0

**Note: N/C means non-compliant. Percentage values are rounded out.**



**Table 1. North Field Night Aircraft Departure SEL Noise Measurements**  
**Total Aircraft Departures = 127**

Third 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	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
2	2	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	3
3	26	5	0.1	0.9%	0	0.0	0.0%	0	0.0	0.0%	31
4	25	41	0.5	7.2%	18	0.2	3.2%	20	0.2	3.5%	104
5	45	6	0.1	1.1%	12	0.1	2.1%	25	0.3	4.4%	88
6	13	7	0.1	1.2%	14	0.2	2.5%	17	0.2	3.0%	51
7	8	12	0.1	2.1%	19	0.2	3.4%	1	0.0	0.2%	40
8	26	11	0.1	1.9%	1	0.0	0.2%	0	0.0	0.0%	38
9	3	2	0.0	0.4%	0	0.0	0.0%	1	0.0	0.2%	6
10	4	1	0.0	0.2%	1	0.0	0.2%	0	0.0	0.0%	6
11	1	0	0.0	0.0%	1	0.0	0.2%	0	0.0	0.0%	2
12	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	3
13	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
14	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
<b>All NMTs</b>	158	86	1	0	66	1	0	64	1	0	374

**Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 121**

Third 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	26	5	0.1	2.1%	0	0.0	0.0%	0	0.0	0.0%	31
4	25	41	0.5	17.2%	18	0.2	7.5%	20	0.2	8.4%	104
5	45	6	0.1	2.5%	12	0.1	5.0%	25	0.3	10.5%	88
6	13	7	0.1	2.9%	14	0.2	5.9%	17	0.2	7.1%	51
7	8	12	0.1	5.0%	19	0.2	7.9%	1	0.0	0.4%	40
8	26	11	0.1	4.6%	1	0.0	0.4%	0	0.0	0.0%	38
<b>Total</b>	<b>143</b>	<b>82</b>	<b>0.9</b>		<b>64</b>	<b>0.7</b>		<b>63</b>	<b>0.7</b>		<b>352</b>

**Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 6**

Third 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	2	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	3
9	3	2	0.0	0.6%	0	0.0	0.0%	1	0.0	0.3%	6
10	4	1	0.0	0.3%	1	0.0	0.3%	0	0.0	0.0%	6
11	1	0	0.0	0.0%	1	0.0	0.3%	0	0.0	0.0%	2
12	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	3
13	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2
14	0	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0
<b>Total</b>	<b>15</b>	<b>4</b>	<b>0.0</b>		<b>2</b>	<b>0.0</b>		<b>1</b>	<b>0.0</b>		<b>22</b>

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)  
Third 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	
Third Quarter 2019 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	122	41	6	64	72	10
DC10/MD10	53	18	6	66	75	18
MD11	259	86	58	66	74	15
A306	116	39	13	67	76	17
B757	173	58	12	67	74	13
B77L	88	29	5	66	74	12
Difference [A-B]						
DC10/MD10		-69	-26	-3	-3	-4
MD11		54	45	-4	-5	-9
A306		-28	-8	0	-1	-8

(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 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
DC10/MD10	47	16	4	64	71
MD11	211	70	48	64	73
A306	118	39	8	65	73
B757	178	59	15	65	73
B77L	76	25	7	65	73
Difference [A-B]					
DC10/MD10		-71	-28	-5	-7
MD11		38	35	-6	-6
A306		-28	-13	-2	-4

(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)

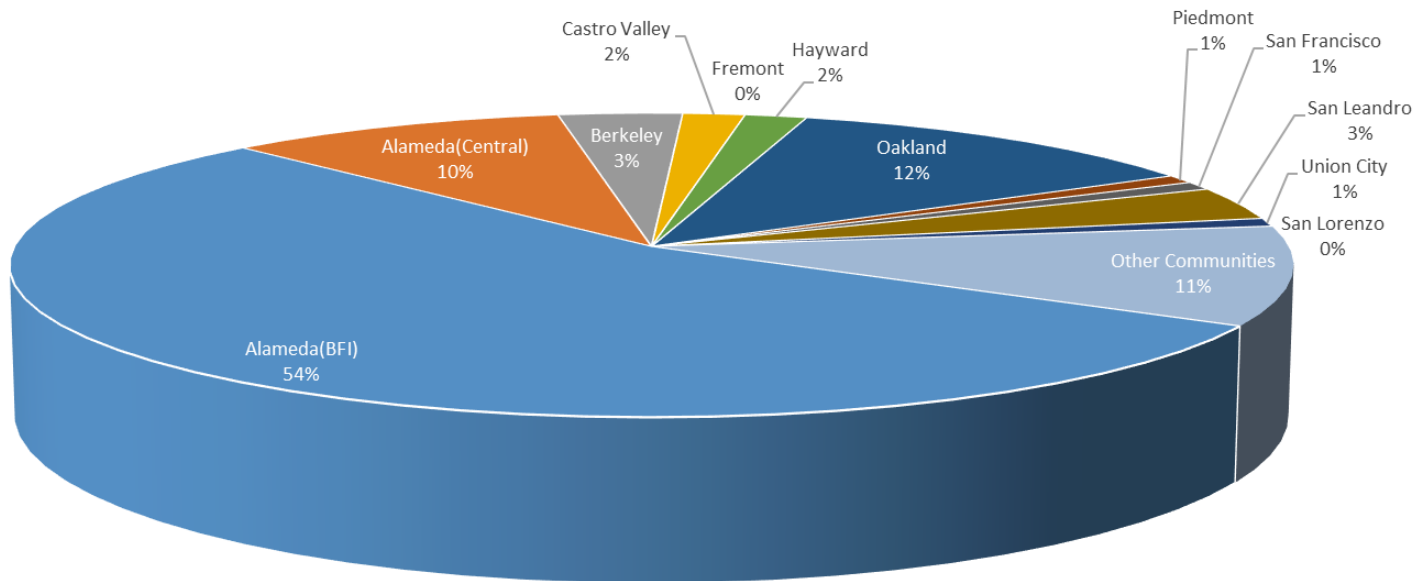
**Oakland International Airport  
Noise Complaint Summary  
July 2019**

<b>Community</b>	<b>Callers</b>	<b>Complaints</b>
Alameda(BFI)	62	1059
Alameda(Central)	11	70
Berkeley	4	21
Castro Valley	2	12
Fremont	0	0
Hayward	2	31
Oakland	14	3102
Piedmont	1	1
San Francisco	1	1
San Leandro	4	19
Union City	1	276
San Lorenzo	0	0
Other Communities	12	1091
<b>Total</b>	<b>114</b>	<b>5683</b>
<b>Complaints by Type</b>		
Website		1401
E-mail		3200
Phone		26
View point App		1056
<b>Complaints by Time of Day</b>		
Day ( 0700 - 1900 )		1425
Evening ( 1900 - 2200 )		962
Night ( 2200 - 0700 )		3296
<b>Complaints by Type of Operation</b>		
Arrivals		3597
Departures		1830
Over-flights		199
Touch & Go		57
Not Linked to an Operation		0
<b>Complaints by Type of Aircraft</b>		
Business Jet		172
Helicopter		40
Jet		4923
Military		0
Not Reported		0
Other		137
Propeller		329
Turbo-prop		82

# Number of Callers

## July 2019

### Noise Complaints Summary by Number of Callers

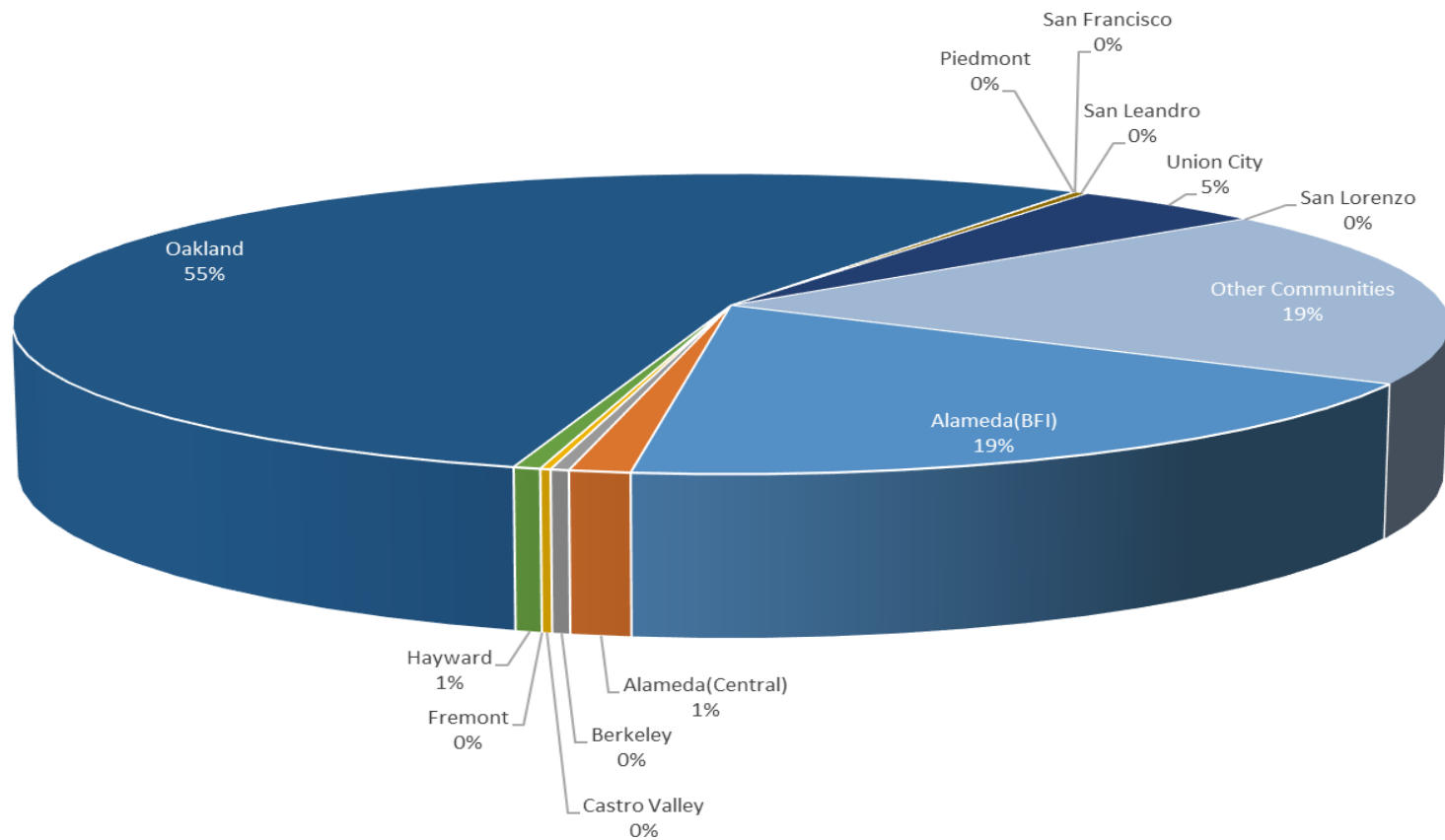




# Number of Complaints

## July 2019

### Noise Complaints Summary by Number of Complaints



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

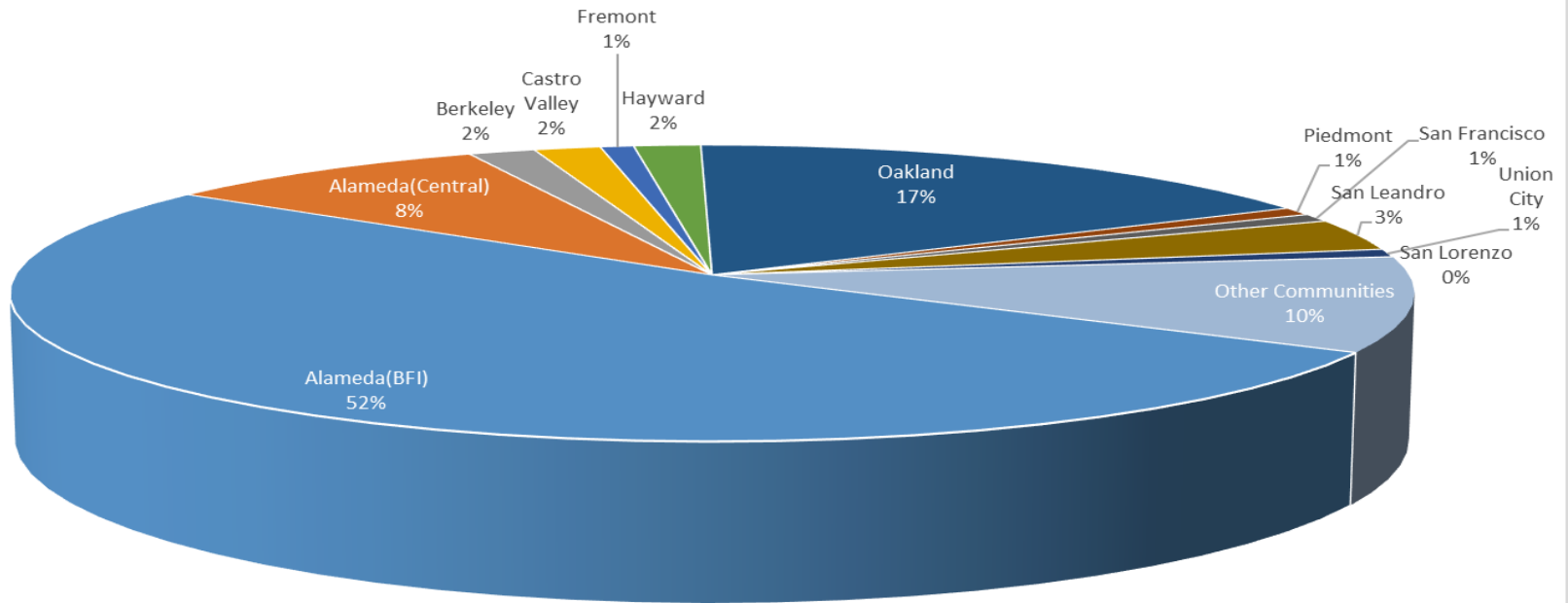
<b>Community</b>	<b>Callers</b>	<b>Complaints</b>
Alameda(BFI)	60	513
Alameda(Central)	10	41
Berkeley	2	13
Castro Valley	2	17
Fremont	1	4
Hayward	2	60
Oakland	20	2267
Piedmont	1	2
San Francisco	1	1
San Leandro	4	6
Union City	1	111
San Lorenzo	0	0
Other Communities	12	1338
<b>Total</b>	<b>116</b>	<b>4373</b>
<b>Complaints by Type</b>		
Website		399
E-mail		2198
Phone		46
View point App		1730
<b>Complaints by Time of Day</b>		
Day ( 0700 - 1900 )		1432
Evening ( 1900 - 2200 )		511
Night ( 2200 - 0700 )		2430
<b>Complaints by Type of Operation</b>		
Arrivals		2577
Departures		1489
Over-flights		255
Touch & Go		52
Not Linked to an Operation		0
<b>Complaints by Type of Aircraft</b>		
Business Jet		480
Helicopter		38
Jet		3171
Military		0
Not Reported		10
Other		139
Propeller		381
Turbo-prop		154



# Number of Callers

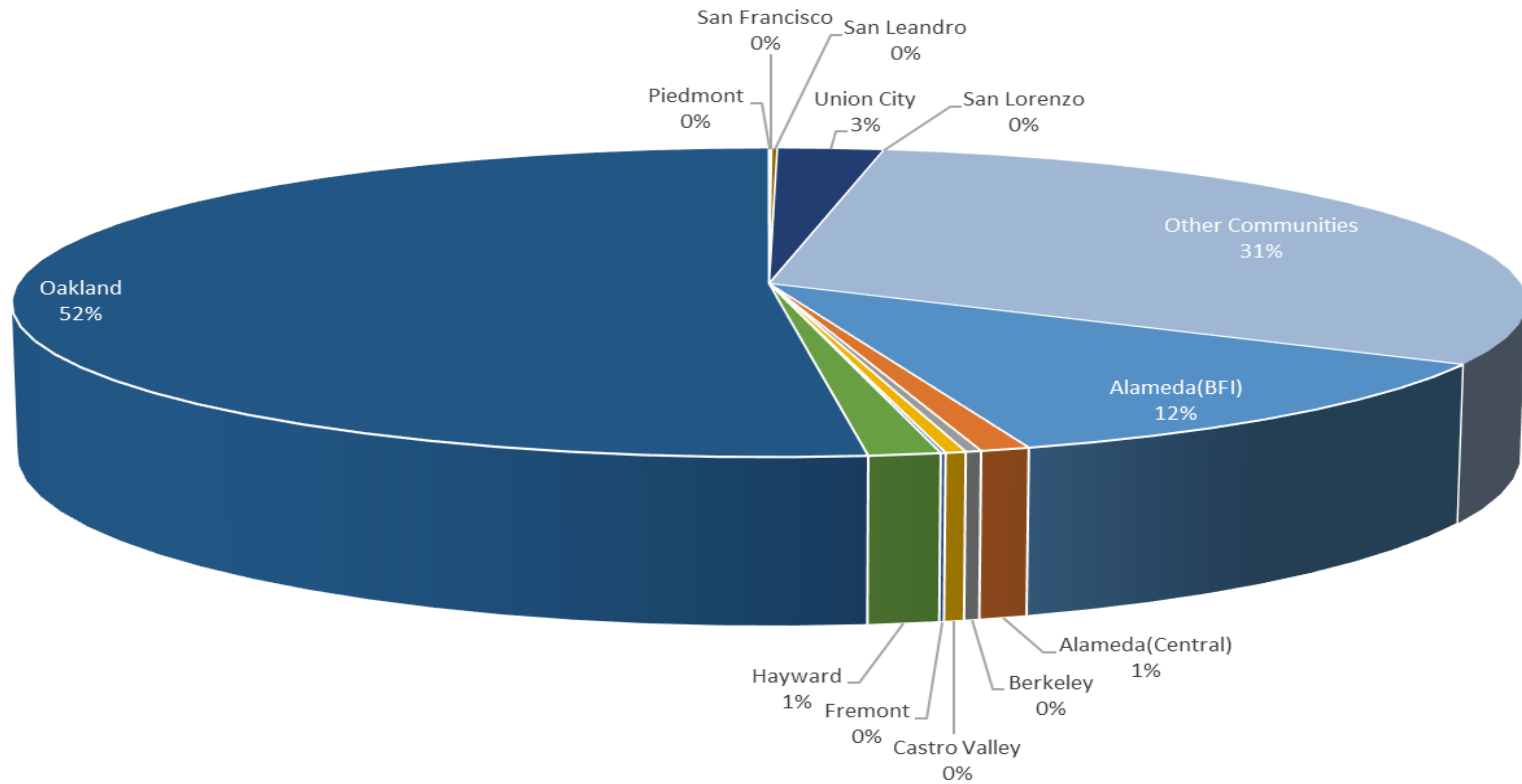
## August 2019

### Noise Complaints Summary by Number of Callers



# Number of Complaints August 2019

## Noise Complaints Summary by Number of Complaints



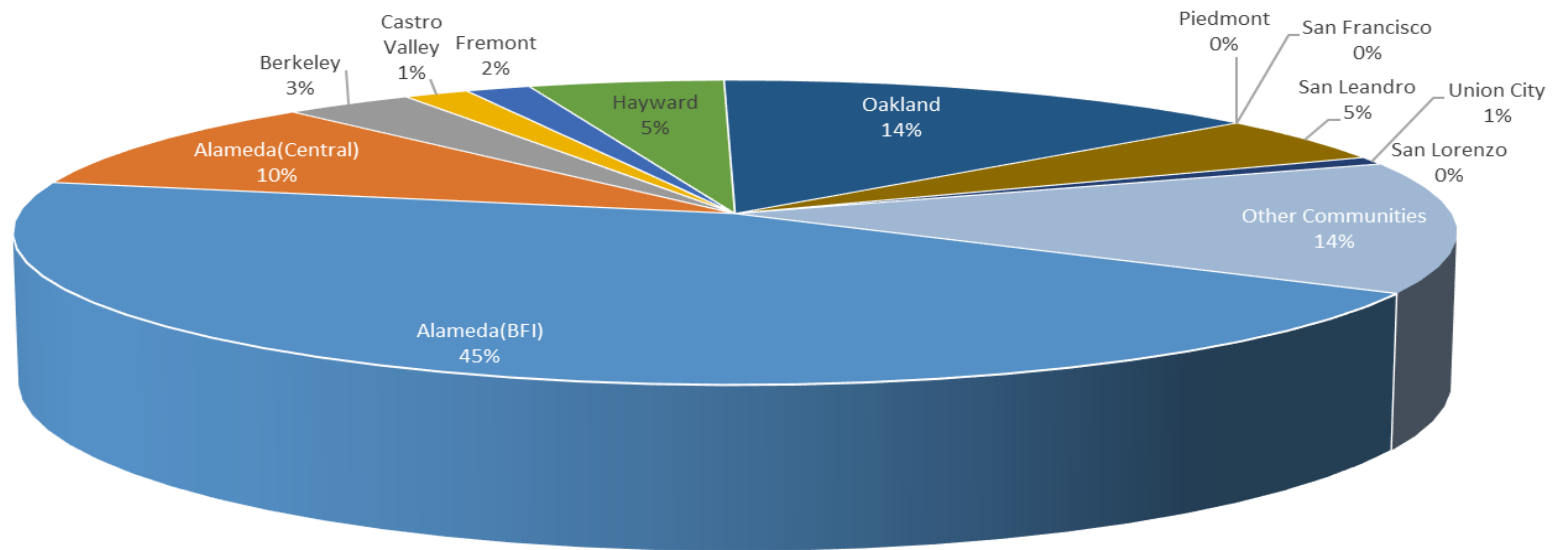
**Oakland International Airport  
Noise Complaint Summary  
September 2019**

<b>Community</b>	<b>Callers</b>	<b>Complaints</b>
Alameda(BFI)	55	1176
Alameda(Central)	12	36
Berkeley	4	9
Castro Valley	2	9
Fremont	2	5
Hayward	6	89
Oakland	17	3096
Piedmont	0	0
San Francisco	0	0
San Leandro	6	12
Union City	1	467
San Lorenzo	0	0
Other Communities	17	1680
<b>Total</b>	<b>122</b>	<b>6579</b>
<b>Complaints by Type</b>		
Website		0
E-mail		3551
Phone		173
View point App		2855
<b>Complaints by Time of Day</b>		
Day ( 0700 - 1900 )		2342
Evening ( 1900 - 2200 )		1032
Night ( 2200 - 0700 )		3205
<b>Complaints by Type of Operation</b>		
Arrivals		3685
Departures		2327
Over-flights		371
Touch & Go		196
Not Linked to an Operation		0
<b>Complaints by Type of Aircraft</b>		
Business Jet		237
Helicopter		41
Jet		5212
Military		0
Not Reported		119
Other		215
Propeller		611
Turbo-prop		144



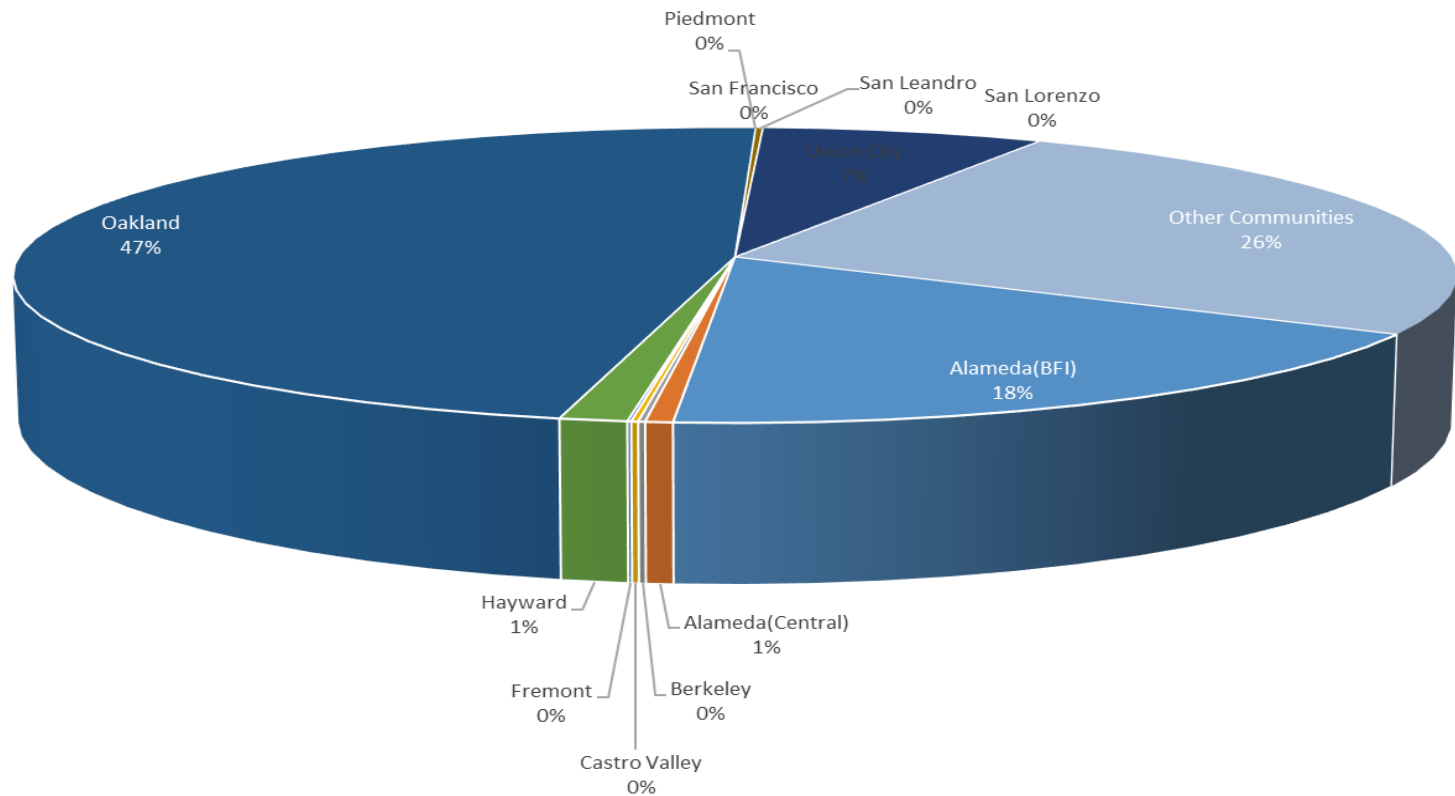
# Number of Callers September 2019

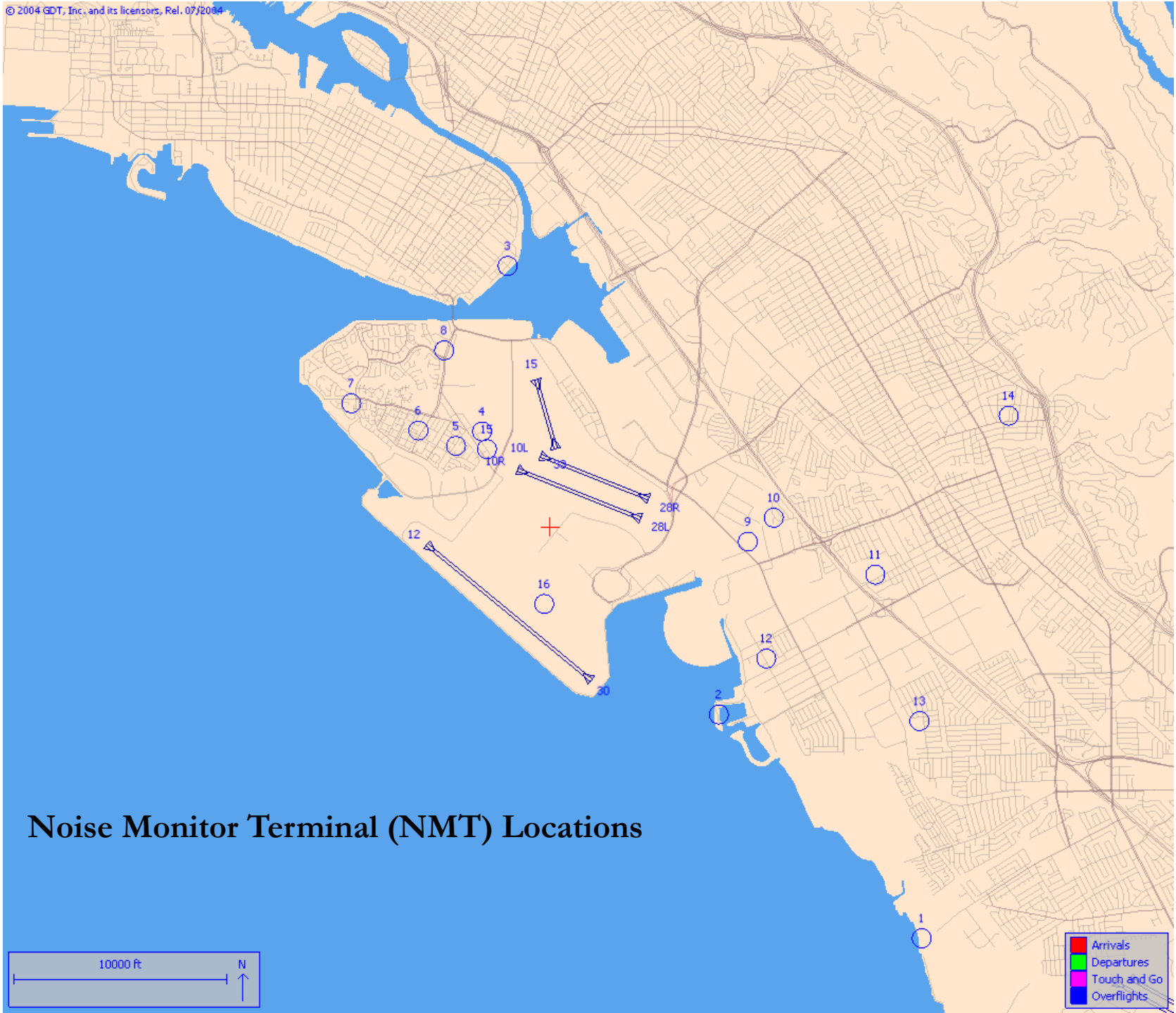
## Noise Complaints Summary by Number of Callers



# Number of Complaints September 2019

## Noise Complaints Summary by Number of Complaints





## Noise Monitor Terminal (NMT) Locations

