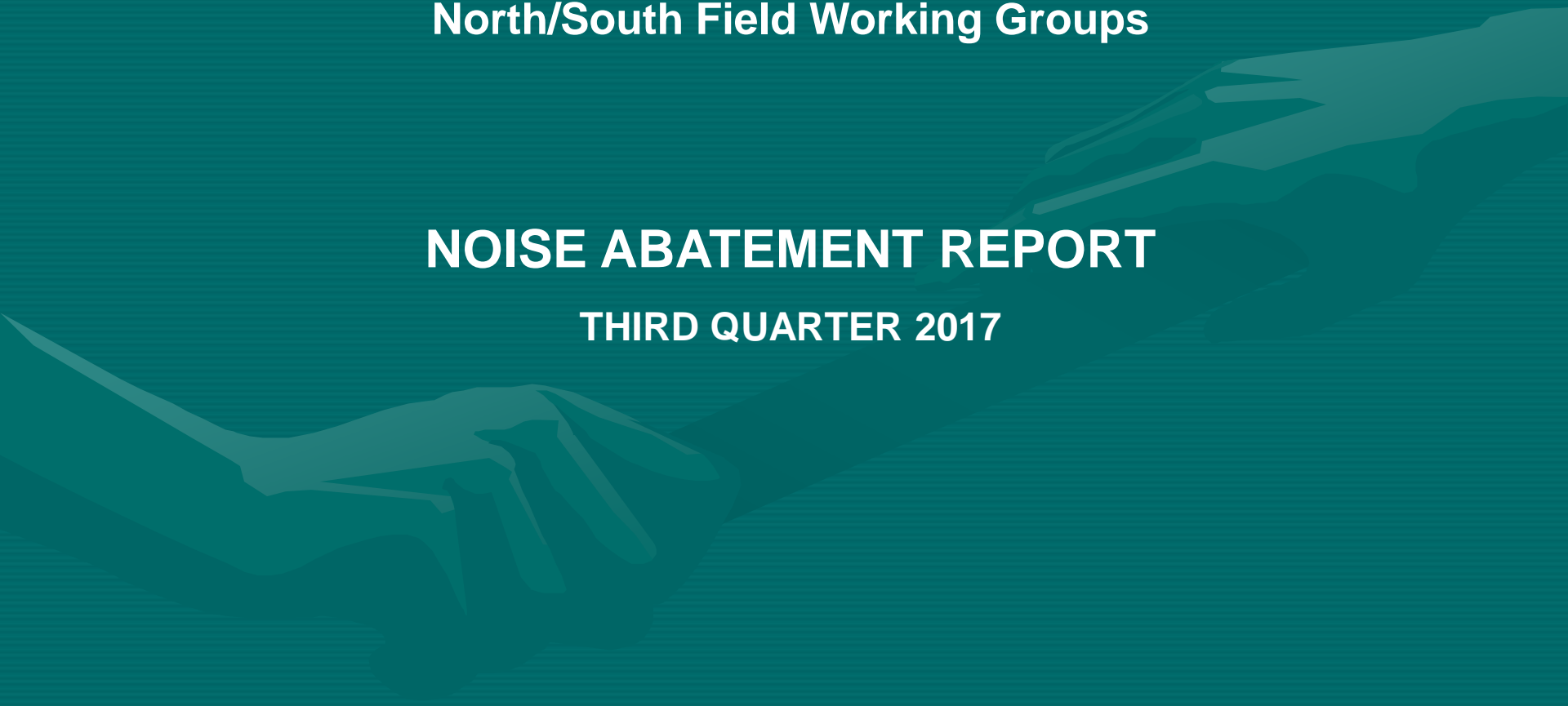


NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

THIRD QUARTER 2017



Compliance Monitoring Quarterly Summary Comparison Third Quarter 2017				
	2016Q3		2017Q3	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	92%	8%	95%	5%
Total Airport-wide Corporate Jet Departures	2,290	205	2,742	155
Runway 10R/L Jet Landing Compliance	100%	0%	100%	0%
Total Southeast Plan Corporate Jet Landings	13	0	0	0
North Field VFR Departure Compliance	98%	2%	98%	2%
Total Runways 28R/L & 33 Departures	387	8	534	9
North Field Quiet Hours Compliance	63%	37%	88%	12%
Total North Field Quiet Hours Departures	100	60	409	54
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,699	1	18,623	3
Night Time Departure Compliance	98%	2%	96%	4%
Total Runway 30 Night Turbojet Departures	3,265	57	3,570	165
Runway 12 Night Departure Compliance	0%	100%	75%	25%
Total Runway 12 Night Turbojet Departures	0	1	3	1
Runway 30 East Turn Departure Compliance	97%	3%	100%	0%
Total Runway 30 East Turn Departures	5,635	164	5,878	20
100 Degree Radial Turbojet Landing Compliance	95%	5%	96%	4%
Total 100 Degree Radial Turbojet Landings	2,386	138	2,745	109
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	21	0	12	0

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

2017Q3
95% Compliance
(2,897 total departures)
(155 non-compliant)

2016Q3
92% Compliance
(2,495 total departures)
(205 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

2017Q3

100% Compliance
(0 total landings)
(0 non-compliant)

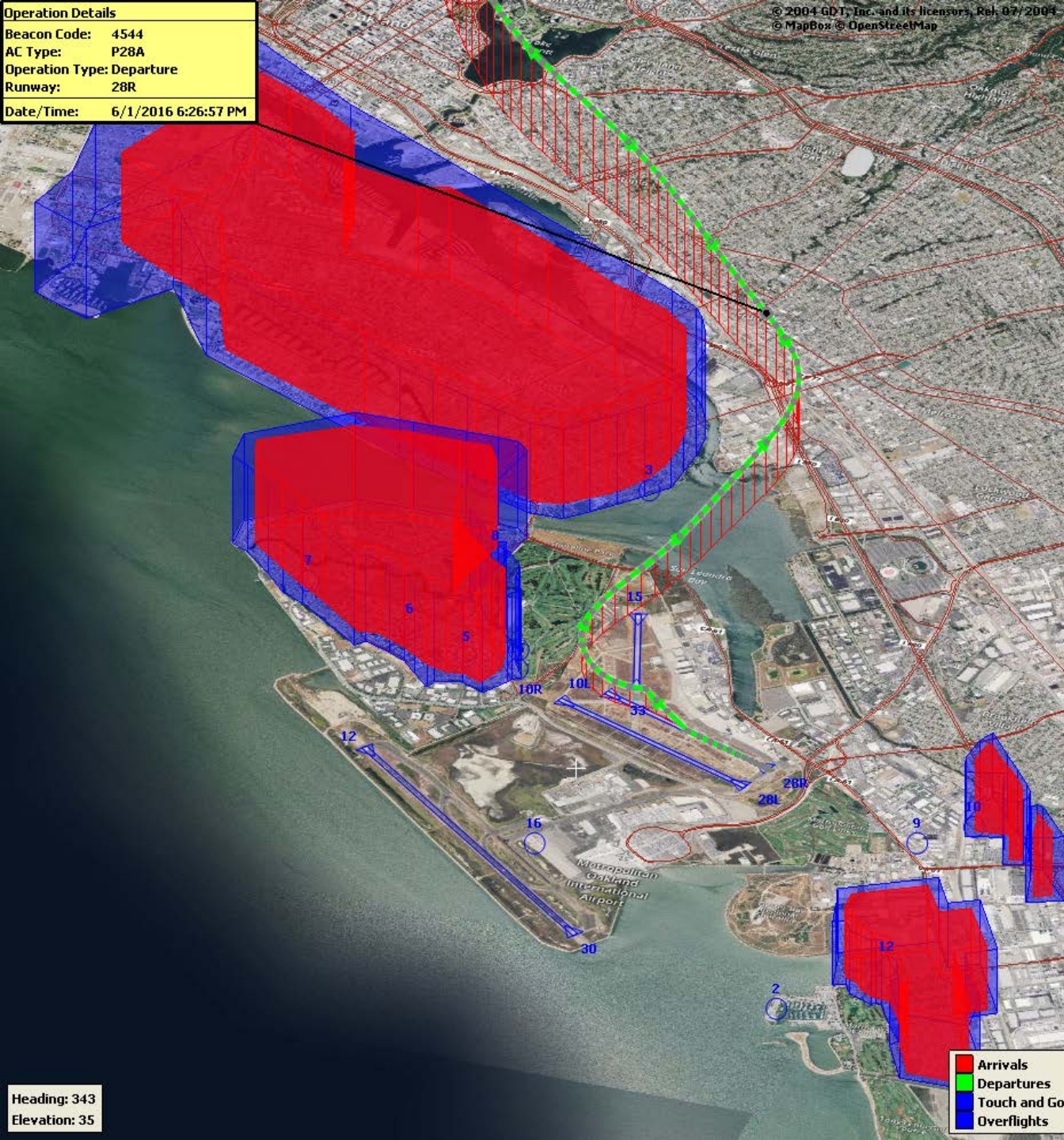
2016Q3

100% Compliance
(13 total landings)
(0 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

2017Q3
98% Compliance
(543 total departures)
(9 non-compliant)

2016Q3
98% Compliance
(395 total departures)
(8 non-compliant)

Arrivals
Departures
Touch and Go
Overflights

Heading: 343
Elevation: 35

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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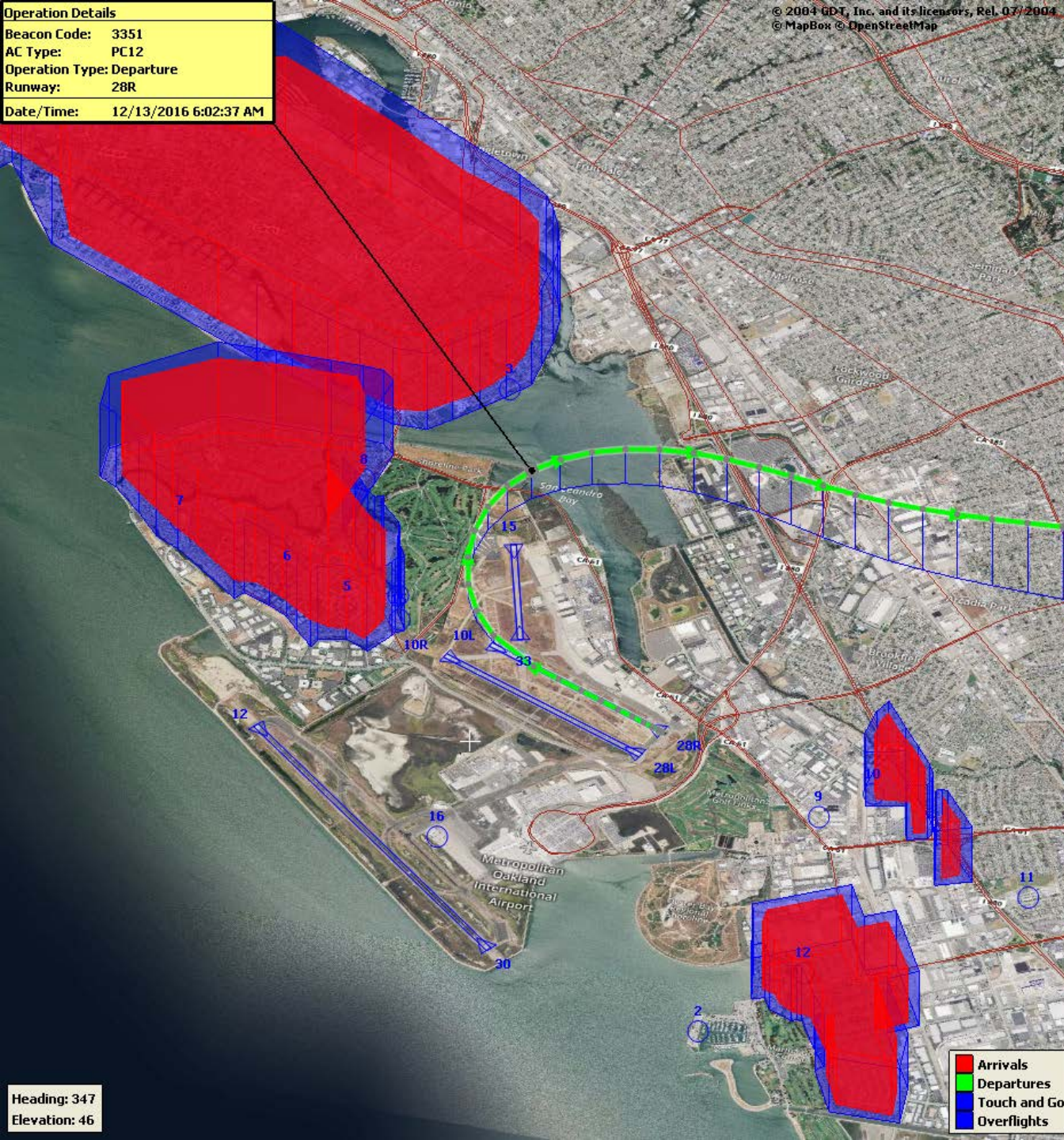
North Field Quiet Hours NAP

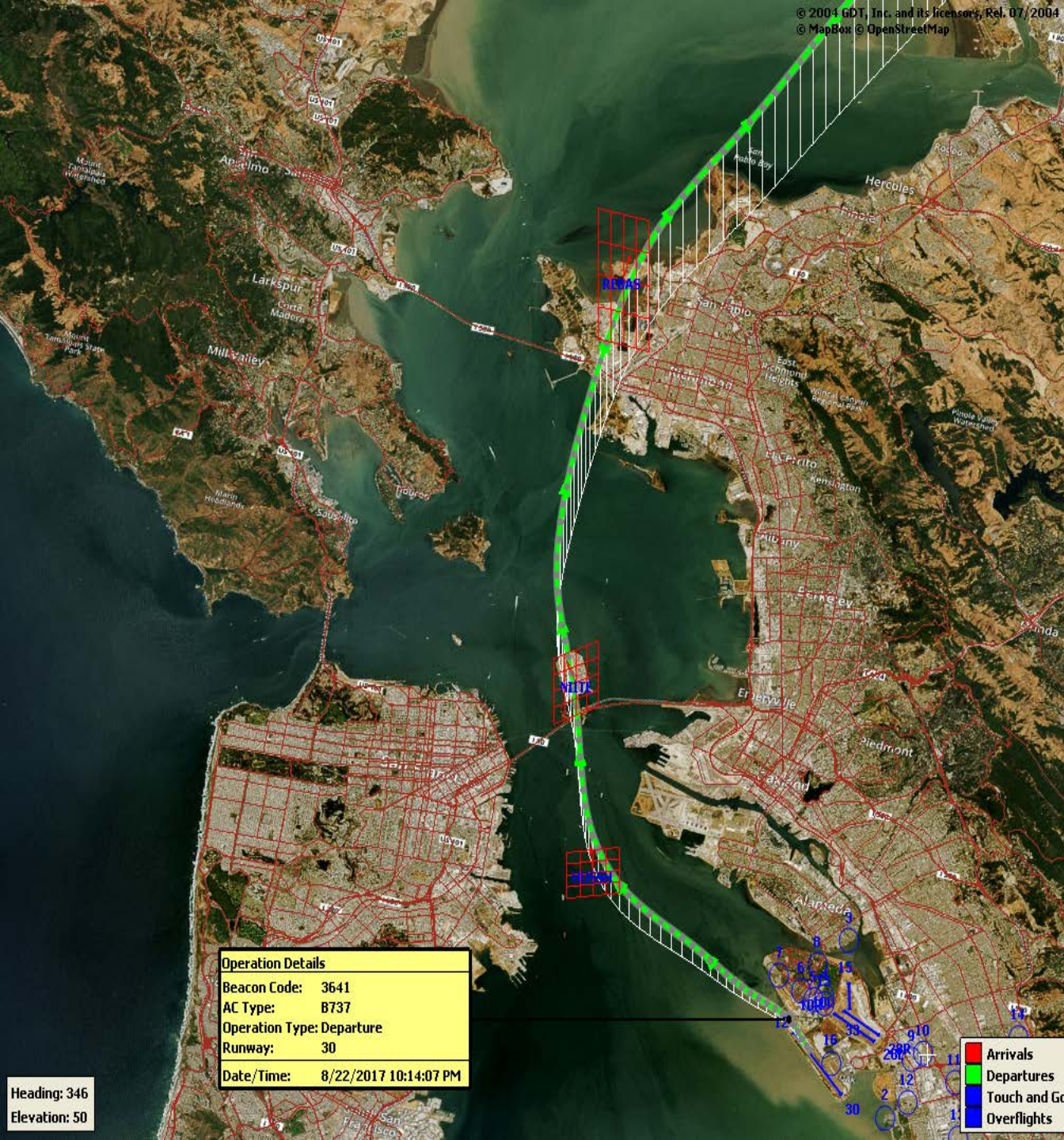
2017Q3
88% Compliance
(463 total departures)
(54 non-compliant)

2016Q3
63% Compliance
(160 total departures)
(60 non-compliant)

Heading: 347
Elevation: 46

Arrivals
Departures
Touch and Go
Overflights





Night Time Departure NAP

2017Q3*
96% Compliance
(3,735 total departures)
(165 non-compliant)

*Runway Rehabilitation
Project Sept. 4th to Oct. 2nd

2016Q3**
98% Compliance
(3,322 total departures)
(57 non-compliant)

**REBAS Gate added 2017Q2

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

2017Q3
75% Compliance
(4 total departures)
(1 non-compliant)

2016Q3
0% Compliance
(1 total departures)
(1 non-compliant)

Runway 30 Bay Farm Right Turn NAP

2017Q3
100% Compliance
(18,626 total departures)
(3 non-compliant)

2016Q3
100% Compliance
(17,700 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

2017Q3

**100% Compliance
(5,898 total departures)
(20 non-compliant)**

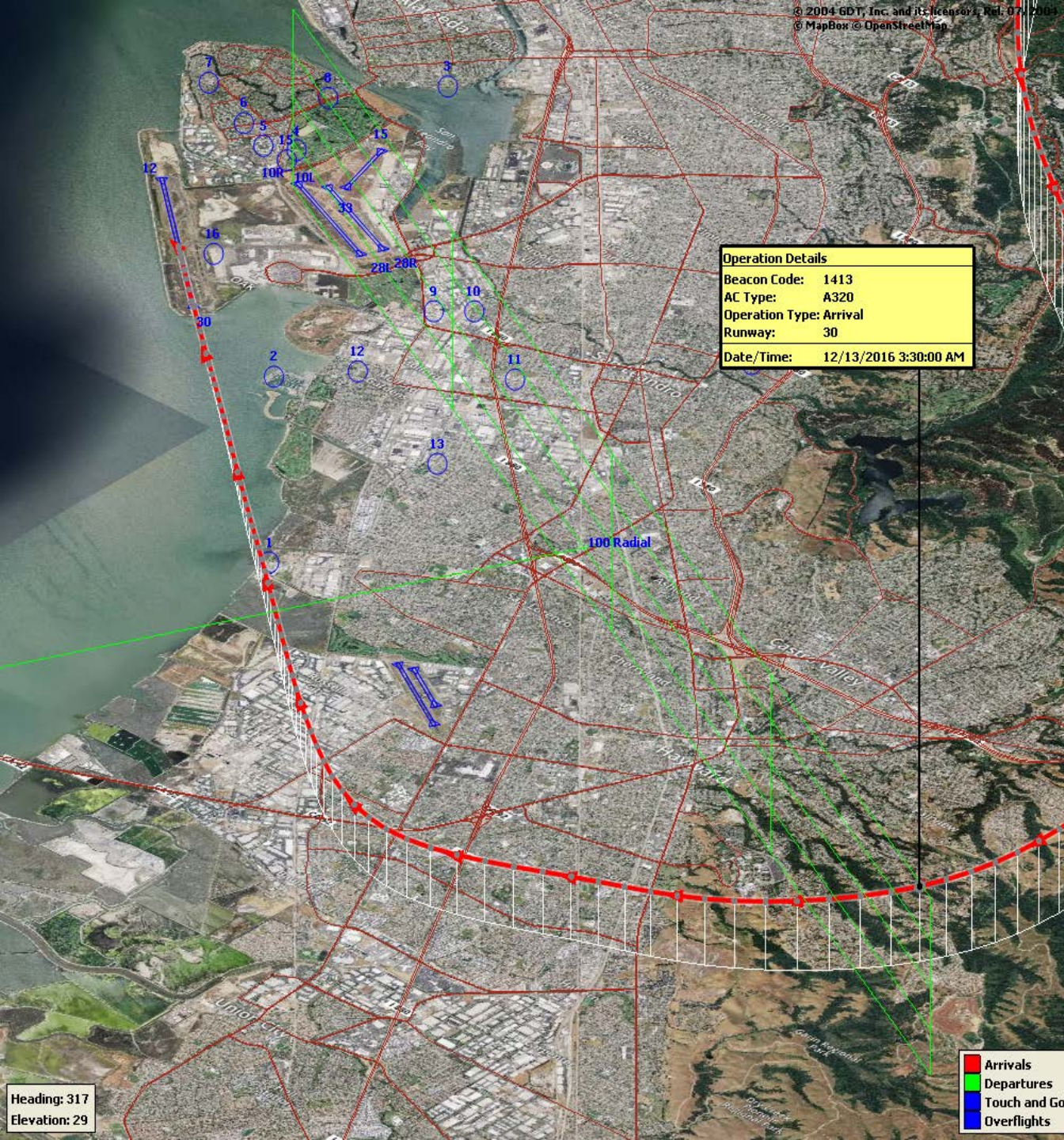
* Excused Departures = 111

2016Q3

**97% Compliance
(5,799 total departures)
(164 non-compliant)**

Heading: 353
Elevation: 46

Arrivals
Departures
Touch and Go
Overflights



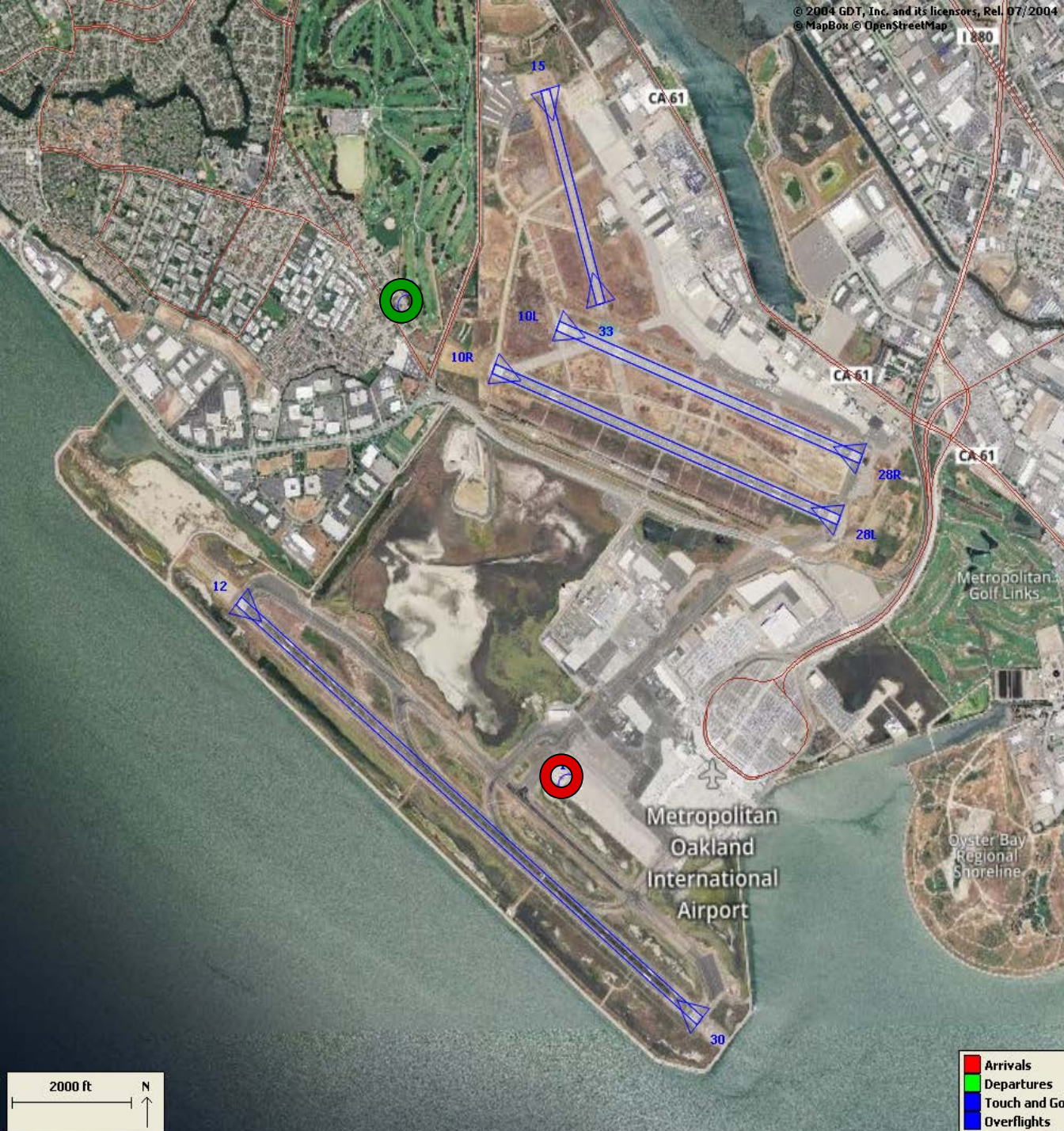
100 Degree Radial At 3,000 ft. NAP

2017Q3

96% Compliance
(2,854 total landings)
(109 non-compliant)

2016Q3

95% Compliance
(2,524 total landings)
(138 non-compliant)



Engine Run-up NAP

2017Q3

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

2016Q3

**100% Compliance
(21 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 = 258

Third Quarter 2017 (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	2	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	3
2	17	5	0.1	0.9%	0	0.0	0.0%	0	0.0	0.0%	22
3	48	4	0.0	0.7%	0	0.0	0.0%	0	0.0	0.0%	52
4	63	54	0.6	9.5%	63	0.7	11.1%	53	0.6	9.3%	233
5	55	38	0.4	6.7%	32	0.4	5.6%	73	0.8	12.9%	198
6	31	27	0.3	4.8%	45	0.5	7.9%	45	0.5	7.9%	148
7	44	35	0.4	6.2%	47	0.5	8.3%	2	0.0	0.4%	128
8	57	32	0.4	5.6%	3	0.0	0.5%	1	0.0	0.2%	93
9	3	2	0.0	0.4%	3	0.0	0.5%	3	0.0	0.5%	11
10	17	7	0.1	1.2%	1	0.0	0.2%	0	0.0	0.0%	25
11	0	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	1
12	8	2	0.0	0.4%	1	0.0	0.2%	0	0.0	0.0%	11
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
All NMTs	349	208	2	0	195	2	0	177	2	0	929

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 251

Third Quarter 2017 (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	48	4	0.0	1.7%	0	0.0	0.0%	0	0.0	0.0%	52
4	63	54	0.6	22.6%	63	0.7	26.4%	53	0.6	22.2%	233
5	55	38	0.4	15.9%	32	0.4	13.4%	73	0.8	30.5%	198
6	31	27	0.3	11.3%	45	0.5	18.8%	45	0.5	18.8%	148
7	44	35	0.4	14.6%	47	0.5	19.7%	2	0.0	0.8%	128
8	57	32	0.4	13.4%	3	0.0	1.3%	1	0.0	0.4%	93
Total	298	190	2.1		190	2.1		174	1.9		852

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 7

Third Quarter 2017 (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	17	5	0.1	1.5%	0	0.0	0.0%	0	0.0	0.0%	22
9	3	2	0.0	0.6%	3	0.0	0.9%	3	0.0	0.9%	11
10	17	7	0.1	2.1%	1	0.0	0.3%	0	0.0	0.0%	25
11	0	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	1
12	8	2	0.0	0.6%	1	0.0	0.3%	0	0.0	0.0%	11
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
Total	49	17	0.2		5	0.1		3	0.0		74

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Third 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	
Third Quarter 2017 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	174	58	3	63	70	7
DC10/MD10	64	21	12	65	74	13
MD11	218	73	69	66	74	13
A306	114	38	5	63	72	11
B757	178	59	11	63	73	10
B77L	65	22	9	64	72	13
Difference [A-B]						
DC10/MD10		-66	-20	-4	-4	-9
MD11		41	56	-4	-5	-11
A306		-29	-16	-4	-5	-14

(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 2016, 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 2016 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	113	38	4	65	73
DC10/MD10	71	24	14	65	73
MD11	203	68	53	65	73
A306	115	38	9	65	72
B757	183	61	10	65	75
B77L	78	26	4	69	77
Difference [A-B]					
DC10/MD10		-63	-18	-4	-5
MD11		36	40	-5	-6
A306		-29	-12	-2	-5

(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 2017**

Community	Callers	Complaints
Alameda(BFI)	60	255
Alameda(Central)	10	234
Berkeley	5	6
Castro Valley	2	3
Fremont	2	5
Hayward	3	111
Oakland	24	3366
Piedmont	1	10
San Francisco	2	88
San Leandro	4	5
Union City	0	0
San Lorenzo	1	1
Other Communities	14	255
Total	128	4339

Complaints by Time of Day

Day (0700 - 1900)	1853
Evening (1900 - 2200)	313
Night (2200 - 0700)	2173

Complaints by Type of Operation

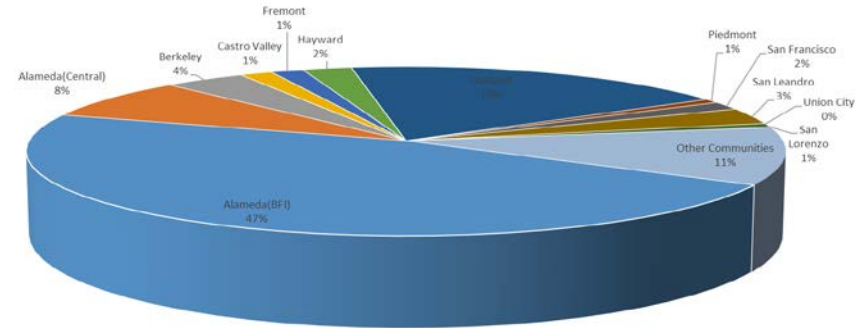
Arrivals	3433
Departures	810
Over-flights	72
Touch & Go	5
Not Linked to an Operation	19

Complaints by Type of Aircraft

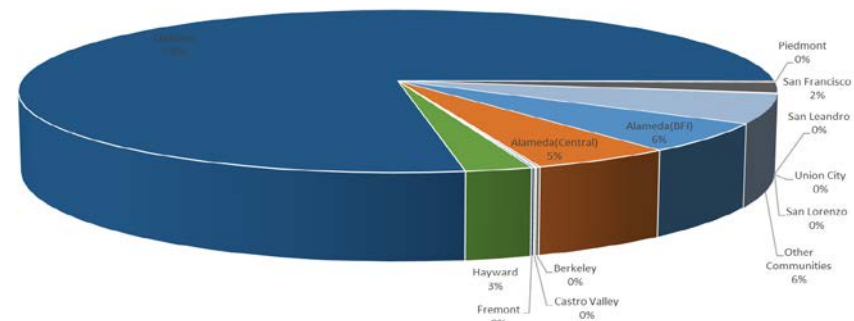
Business Jet	109
Helicopter	31
Jet	3605
Military	0
Not Reported	19
Other	21
Propeller	252
Turbo-prop	302

Noise Complaint Summary July 2017

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints



**Oakland International Airport
Noise Complaint Summary
August 2017**

Community	Callers	Complaints
Alameda(BFI)	40	115
Alameda(Central)	10	383
Berkeley	2	2
Castro Valley	0	0
Fremont	3	5
Hayward	5	152
Oakland	25	1256
Piedmont	1	17
San Francisco	1	25
San Leandro	5	19
Union City	0	0
San Lorenzo	0	0
Other Communities	13	423
Total	105	2397

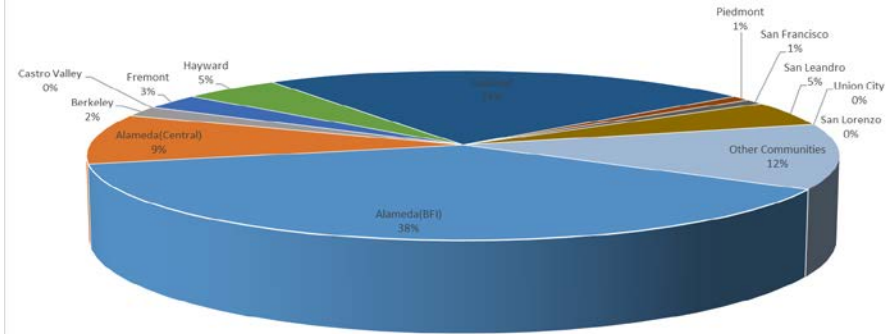
Complaints by Time of Day	
Day (0700 - 1900)	1068
Evening (1900 - 2200)	360
Night (2200 - 0700)	969

Complaints by Type of Operation	
Arrivals	1314
Departures	976
Over-flights	83
Touch & Go	5
Not Linked to an Operation	19

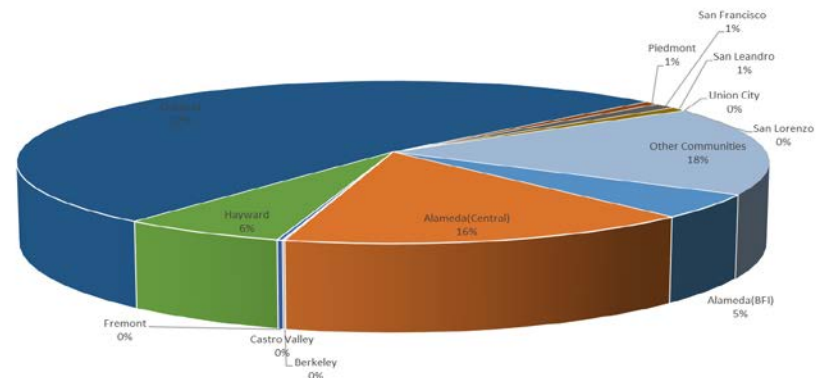
Complaints by Type of Aircraft	
Business Jet	113
Helicopter	30
Jet	1804
Military	1
Not Reported	14
Other	19
Propeller	171
Turbo-prop	245

Noise Complaint Summary August 2017

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints



**Oakland International Airport
Noise Complaint Summary
September 2017**

Community	Callers	Complaints
Alameda(BFI)	225	1005
Alameda(Central)	17	304
Berkeley	7	13
Castro Valley	23	34
Fremont	2	12
Hayward	91	310
Oakland	32	2962
Piedmont	2	3
San Francisco	3	175
San Leandro	54	153
Union City	0	0
San Lorenzo	8	8
Other Communities	28	423
Total	492	5402

Complaints by Time of Day

Day (0700 - 1900)	1475
Evening (1900 - 2200)	947
Night (2200 - 0700)	2980

Complaints by Type of Operation

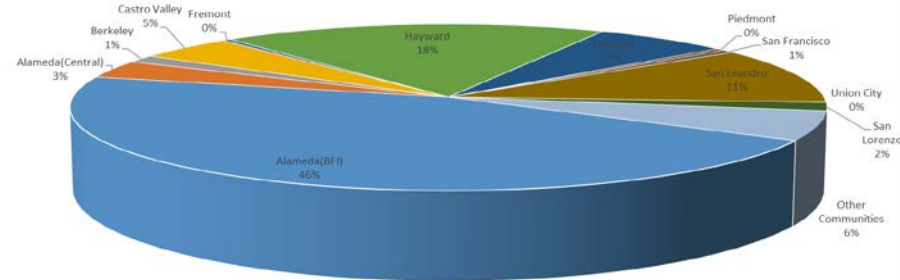
Arrivals	3258
Departures	2019
Over-flights	121
Touch & Go	4
Not Linked to an Operation	0

Complaints by Type of Aircraft

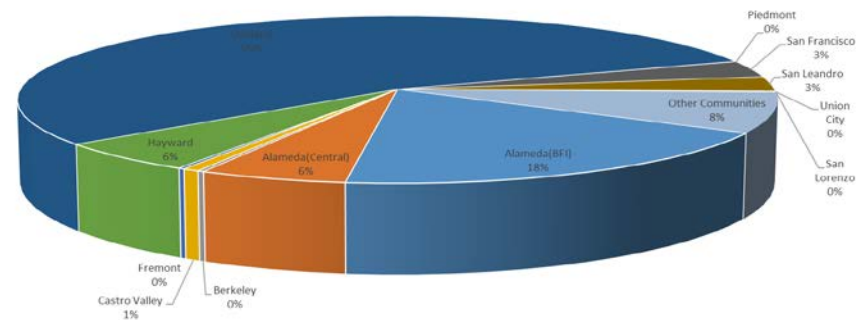
Business Jet	431
Helicopter	61
Jet	4413
Military	0
Not Reported	0
Other	27
Propeller	229
Turbo-prop	241

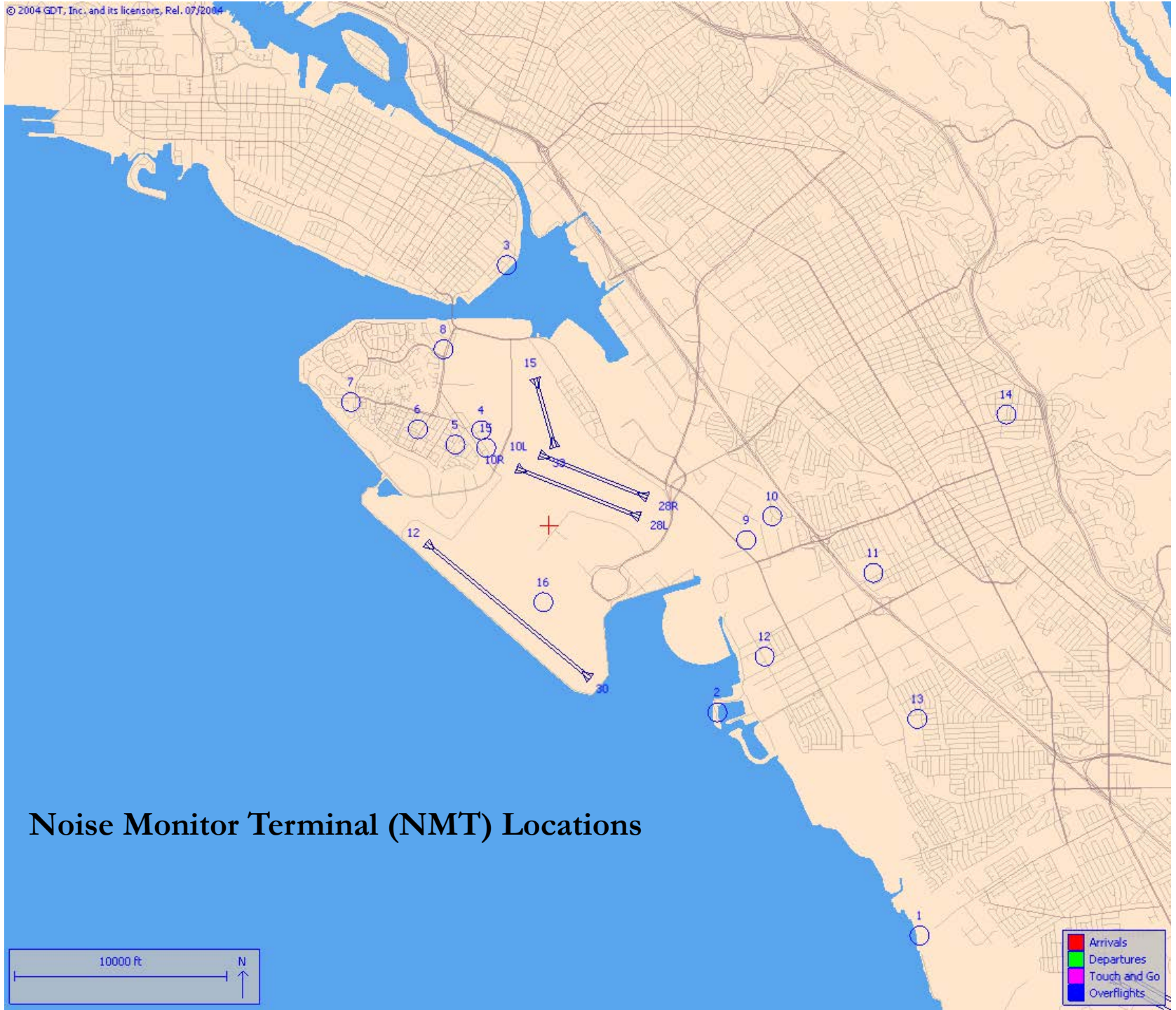
Noise Complaint Summary September 2017

Noise Complaints Summary by Number of Callers



Noise Complaints Summary by Number of Complaints





Noise Monitor Terminal (NMT) Locations