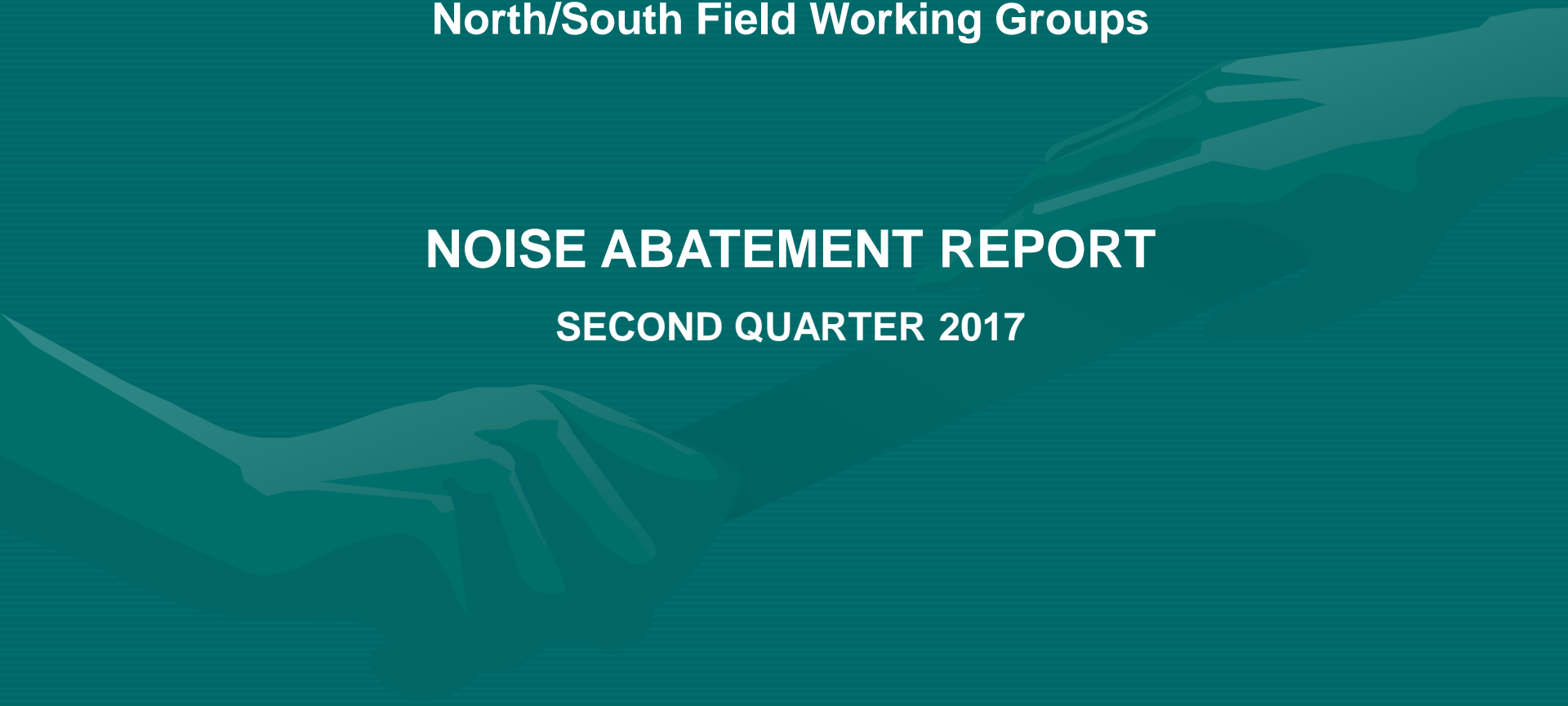


NOISE FORUM SUMMARY

North/South Field Working Groups

NOISE ABATEMENT REPORT

SECOND QUARTER 2017



Compliance Monitoring Quarterly Summary Comparison Second Quarter 2017				
	2016Q2		2017Q2	
	Compl.	N/C	Compl.	N/C
Runway 28R/L Jet Departure Compliance	89%	11%	90%	10%
Total Airport-wide Corporate Jet Departures	2,533	306	2,727	312
Runway 10R/L Jet Landing Compliance	100%	0%	69%	31%
Total Southeast Plan Corporate Jet Landings	10	0	44	20
North Field VFR Departure Compliance	97%	3%	97%	3%
Total Runways 28R/L & 33 Departures	557	19	572	18
North Field Quiet Hours Compliance	79%	21%	83%	17%
Total North Field Quiet Hours Departures	180	48	182	37
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%
Total Runway 30 Turbojet Departures	17,218	11	17,618	5
Night Time Departure Compliance	98%	2%	99%	1%
Total Runway 30 Night Turbojet Departures	3,353	59	3,324	27
Runway 12 Night Departure Compliance	100%	0%	83%	17%
Total Runway 12 Night Turbojet Departures	11	0	62	13
Runway 30 East Turn Departure Compliance	96%	4%	99%	1%
Total Runway 30 East Turn Departures	4,919	214	5,363	27
100 Degree Radial Turbojet Landing Compliance	92%	8%	95%	5%
Total 100 Degree Radial Turbojet Landings	2,252	185	2,337	130
Engine Runup Program Compliance	100%	0%	100%	0%
Total Evening and Nighttime Engine Runups	10	0	7	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

2017Q2
90% Compliance
(3,039 departures)
(312 non-compliant)

2016Q2
89% Compliance
(2,839 departures)
(306 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

2017Q2

69% Compliance
(841 landings)
(64 non-compliant)

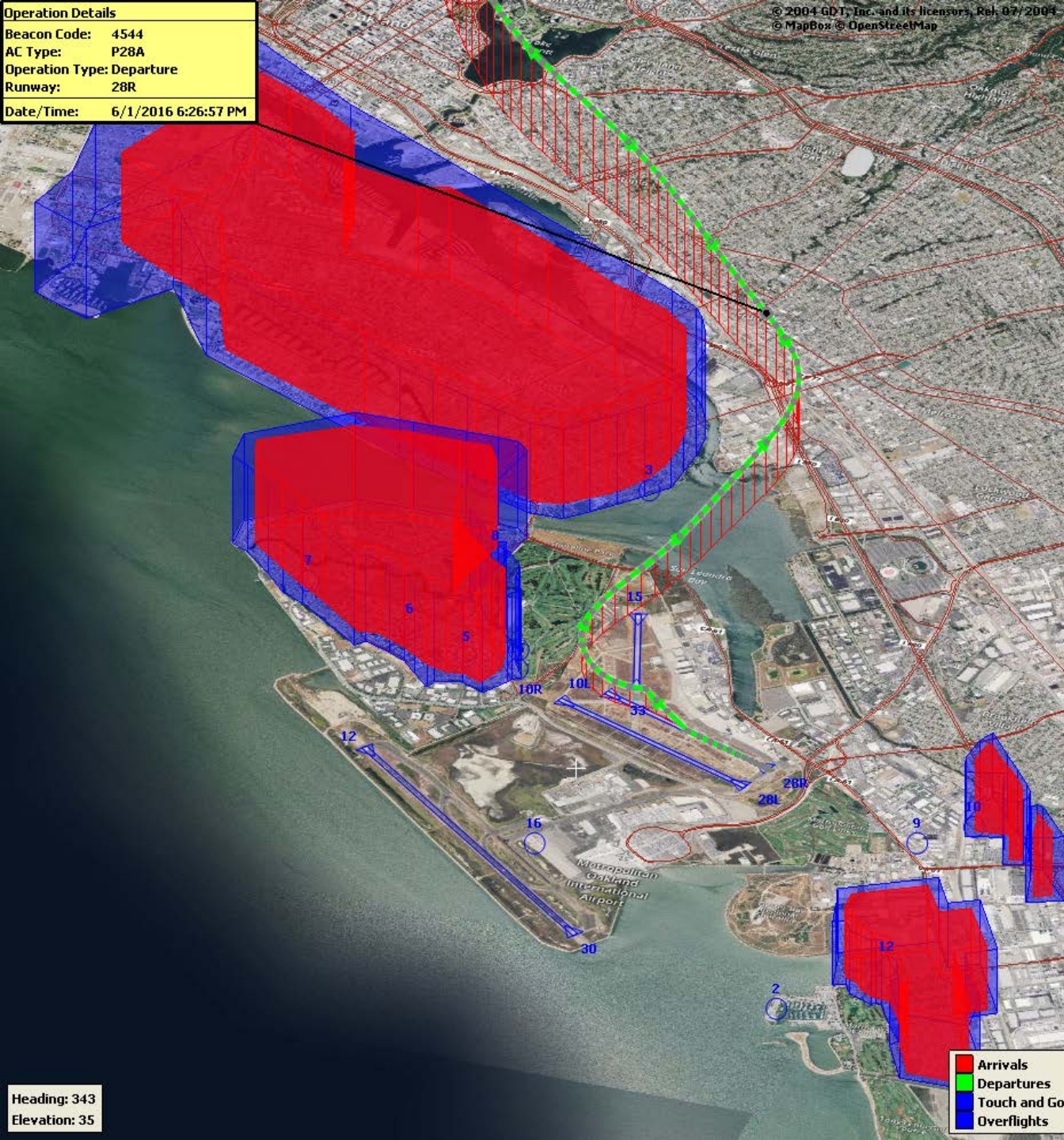
2016Q2

100% Compliance
(469 landings)
(10 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

2017Q2
97% Compliance
(590 departures)
(18 non-compliant)

2016Q2
97% Compliance
(576 departures)
(19 non-compliant)

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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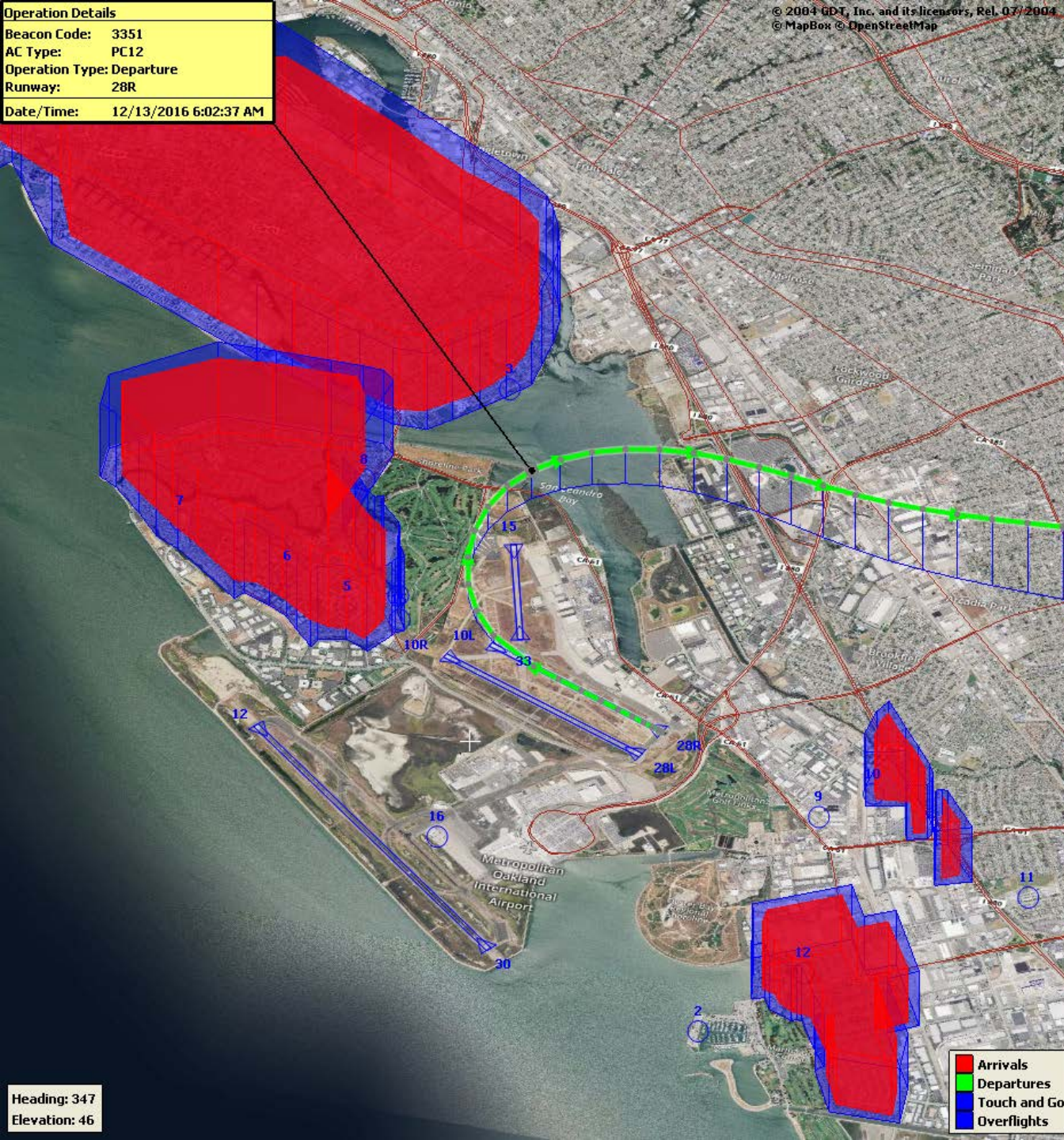
North Field Quiet Hours NAP

2017Q2
83% Compliance
(219 departures)
(37 non-compliant)

2016Q2
79% Compliance
(228 departures)
(48 non-compliant)

Heading: 347
Elevation: 46

Arrivals
Departures
Touch and Go
Overflights



Runway 30 Bay Farm Right Turn NAP

2017Q2
100% Compliance
(17,623 departures)
(5 non-compliant)

2016Q2
100% Compliance
(17,229 departures)
(11 non-compliant)

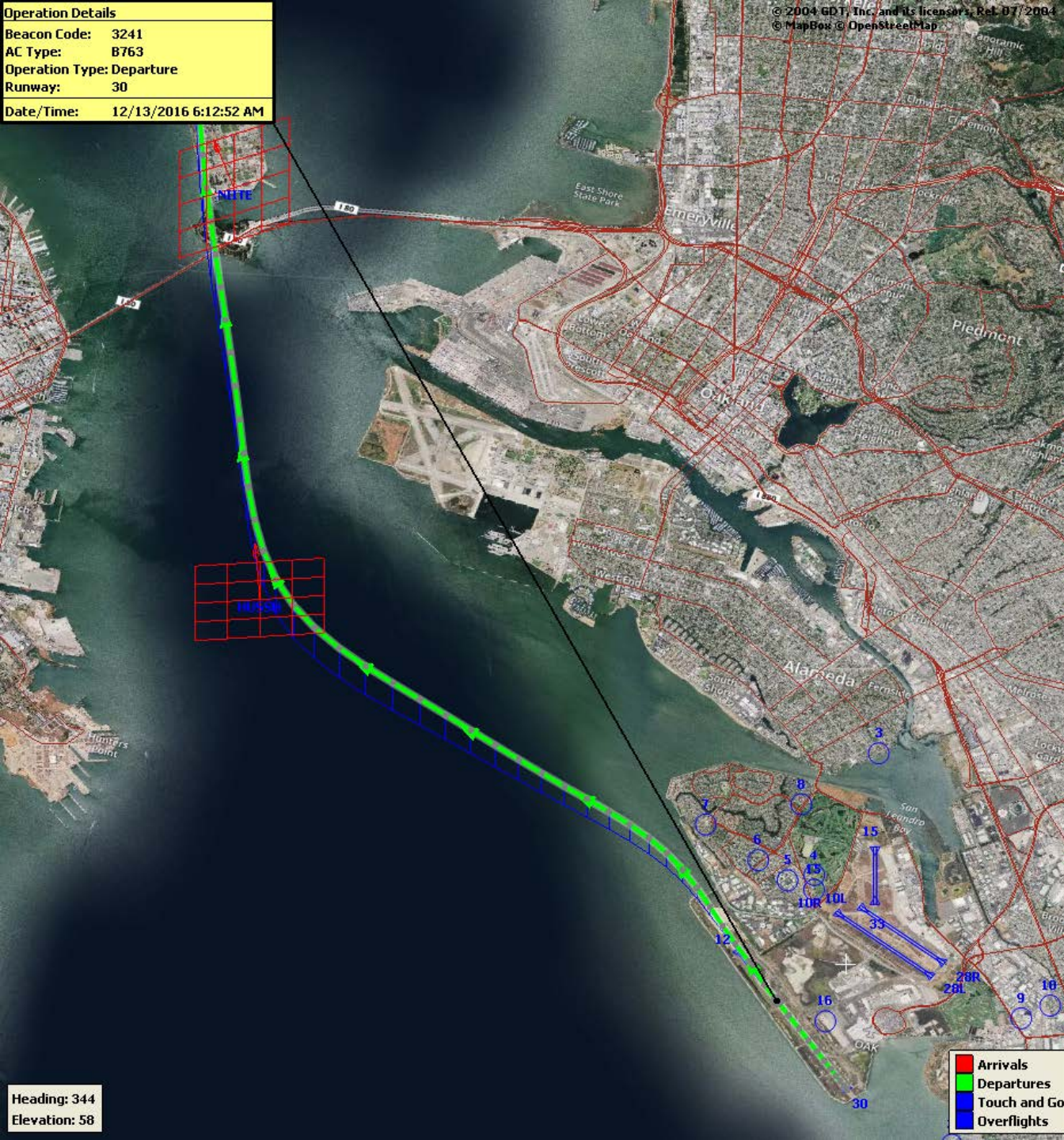
Operation Details	
Beacon Code:	3777
AC Type:	B737
Runway:	30
Date/Time:	3/15/2017 9:53:03 AM

Heading: 337
Elevation: 34



Operation Details
Beacon Code: 3241
AC Type: B763
Operation Type: Departure
Runway: 30
Date/Time: 12/13/2016 6:12:52 AM

Heading: 344
Elevation: 58



Night Time Departure NAP

2017Q2
99% Compliance
(3,351 departures)
(27 non-compliant)

2016Q2
98% Compliance
(3,412 departures)
(59 non-compliant)

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

2017Q2
83% Compliance
(75 departures)
(13 non-compliant)

2016Q2
100% Compliance
(11 departures)
(0 non-compliant)

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



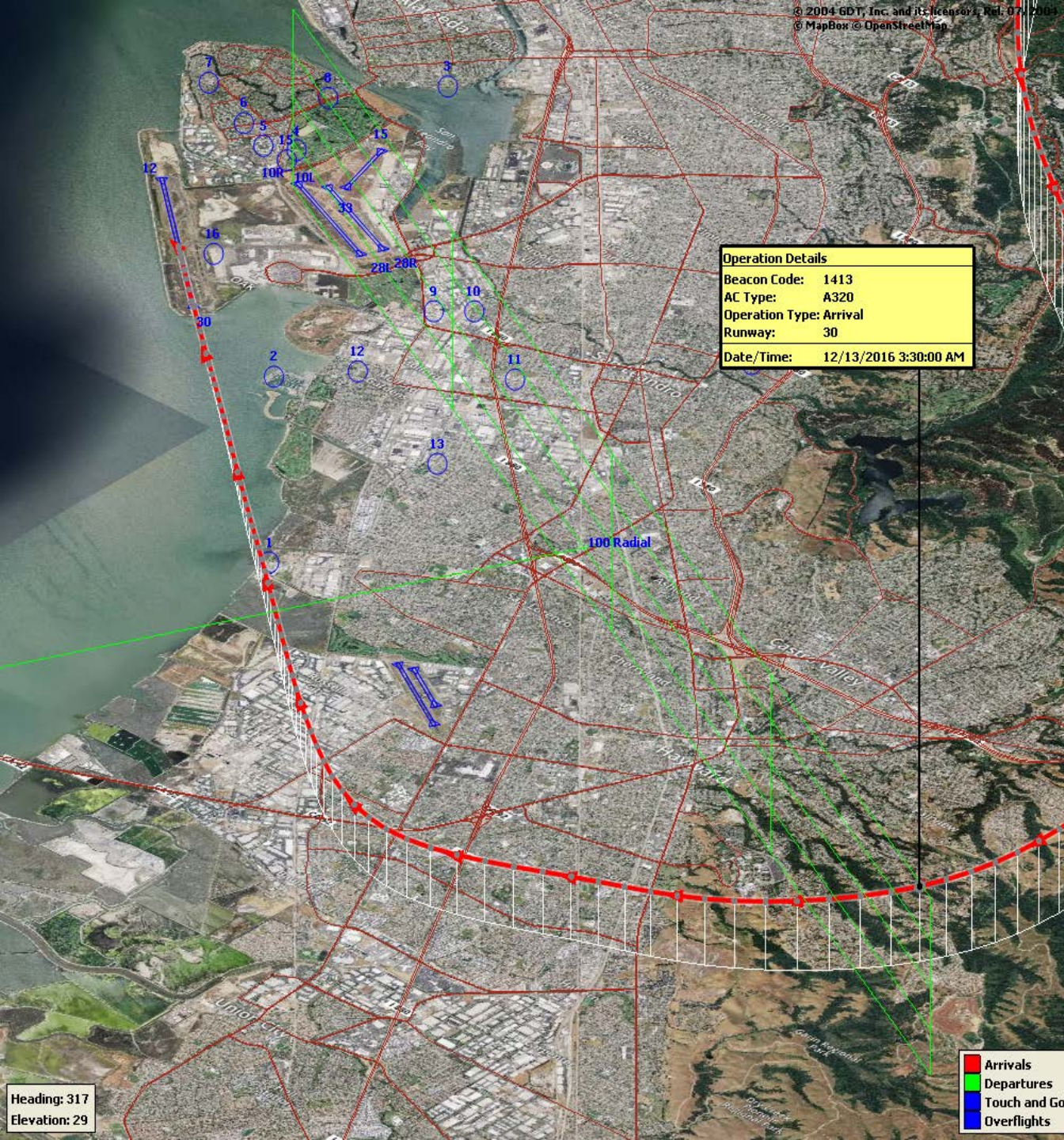
Runway 30 East Turn NAP

2017Q2
99% Compliance
(5,390 departures)
(27 non-compliant)

2016Q2
96% Compliance
(5,133 departures)
(214 non-compliant)

Heading: 353
Elevation: 46

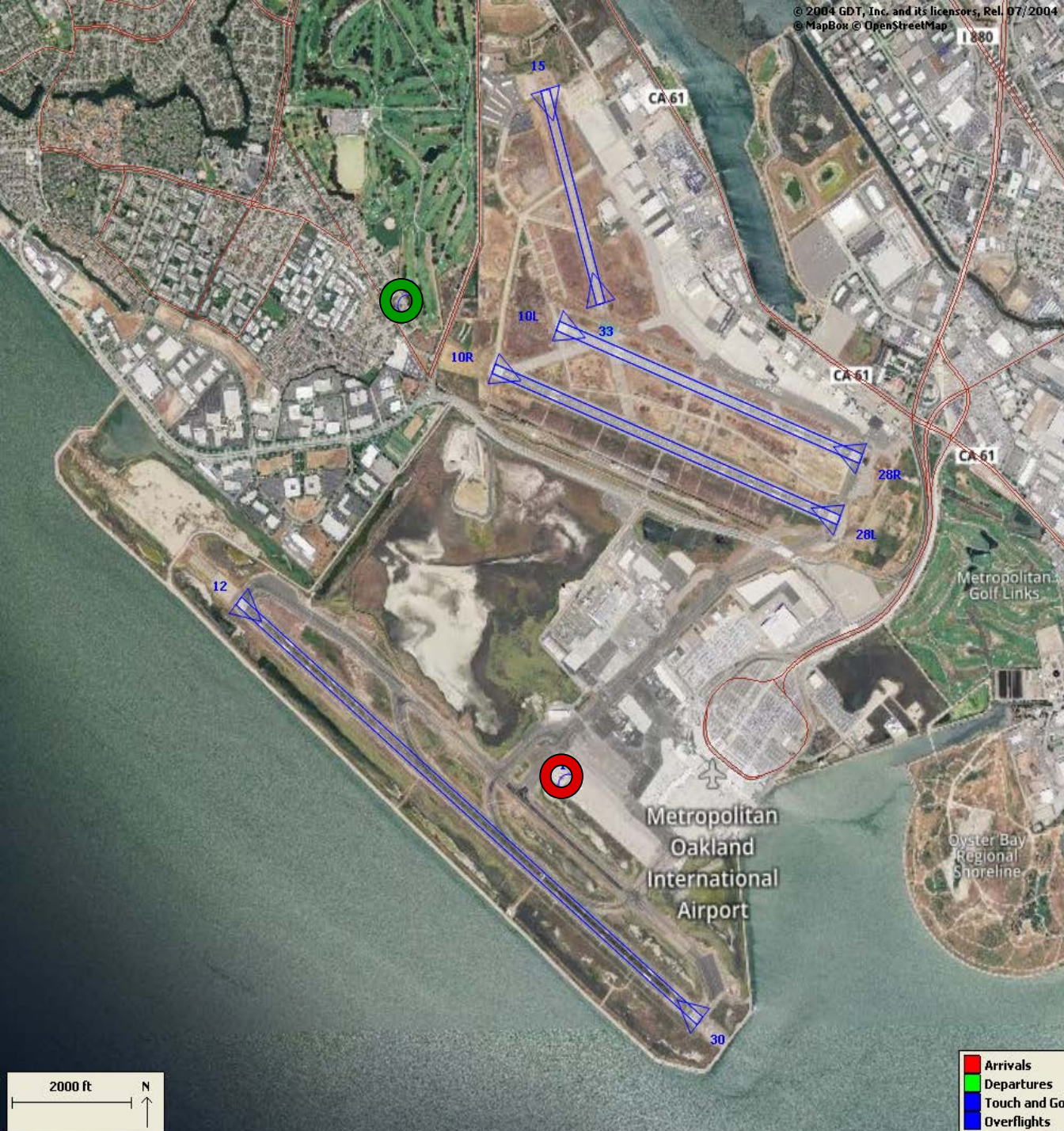
Arrivals
Departures
Touch and Go
Overflights



100 Degree Radial At 3,000 ft. NAP

2017Q2
95% Compliance
(2,467 landings)
(130 non-compliant)

2016Q2
92% Compliance
(2,437 landings)
(185 non-compliant)



Engine Run-up NAP

2017Q2

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

2016Q2

100% Compliance
(10 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 = 219

Second 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	1	4	0.0	0.7%	1	0.0	0.2%	0	0.0	0.0%	6
2	13	6	0.1	1.1%	1	0.0	0.2%	0	0.0	0.0%	20
3	48	8	0.1	1.4%	1	0.0	0.2%	0	0.0	0.0%	57
4	67	56	0.6	9.9%	34	0.4	6.0%	17	0.2	3.0%	174
5	56	25	0.3	4.4%	19	0.2	3.4%	26	0.3	4.6%	126
6	25	19	0.2	3.4%	25	0.3	4.4%	14	0.2	2.5%	83
7	26	23	0.3	4.1%	18	0.2	3.2%	0	0.0	0.0%	67
8	32	14	0.2	2.5%	2	0.0	0.4%	1	0.0	0.2%	49
9	8	6	0.1	1.1%	2	0.0	0.4%	2	0.0	0.4%	18
10	23	6	0.1	1.1%	1	0.0	0.2%	0	0.0	0.0%	30
11	3	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	5
12	5	3	0.0	0.5%	1	0.0	0.2%	0	0.0	0.0%	9
13	0	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	1
14	7	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	7
All NMTs	314	173	2	0	105	1	0	60	1	0	652

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 199

Second 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	8	0.1	3.3%	1	0.0	0.4%	0	0.0	0.0%	57
4	67	56	0.6	23.4%	34	0.4	14.2%	17	0.2	7.1%	174
5	56	25	0.3	10.5%	19	0.2	7.9%	26	0.3	10.9%	126
6	25	19	0.2	7.9%	25	0.3	10.5%	14	0.2	5.9%	83
7	26	23	0.3	9.6%	18	0.2	7.5%	0	0.0	0.0%	67
8	32	14	0.2	5.9%	2	0.0	0.8%	1	0.0	0.4%	49
Total	254	145	1.6		99	1.1		58	0.6		556

Table 3. Aircraft SEL Noise Measurements in San Leandro - Total Aircraft Departures = 20

Second 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	13	6	0.1	1.8%	1	0.0	0.3%	0	0.0	0.0%	20
9	8	6	0.1	1.8%	2	0.0	0.6%	2	0.0	0.6%	18
10	23	6	0.1	1.8%	1	0.0	0.3%	0	0.0	0.0%	30
11	3	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	5
12	5	3	0.0	0.9%	1	0.0	0.3%	0	0.0	0.0%	9
13	0	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	1
14	7	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	7
Total	59	24	0.3		5	0.1		2	0.0		90

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Second 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
Second Quarter 2017 [B]					
	Total [X]	Est. Avg. Monthly [X/3]			
B763	128	43	4	67	76
DC10/MD10	65	22	8	66	75
MD11	196	65	56	66	75
A306	111	37	10	66	75
B757	184	61	16	66	75
B77L	72	24	9	69	77
Difference [A-B]					
DC10/MD10		-65	-24	-3	-3
MD11		33	43	-4	-4
A306		-30	-11	-1	-2

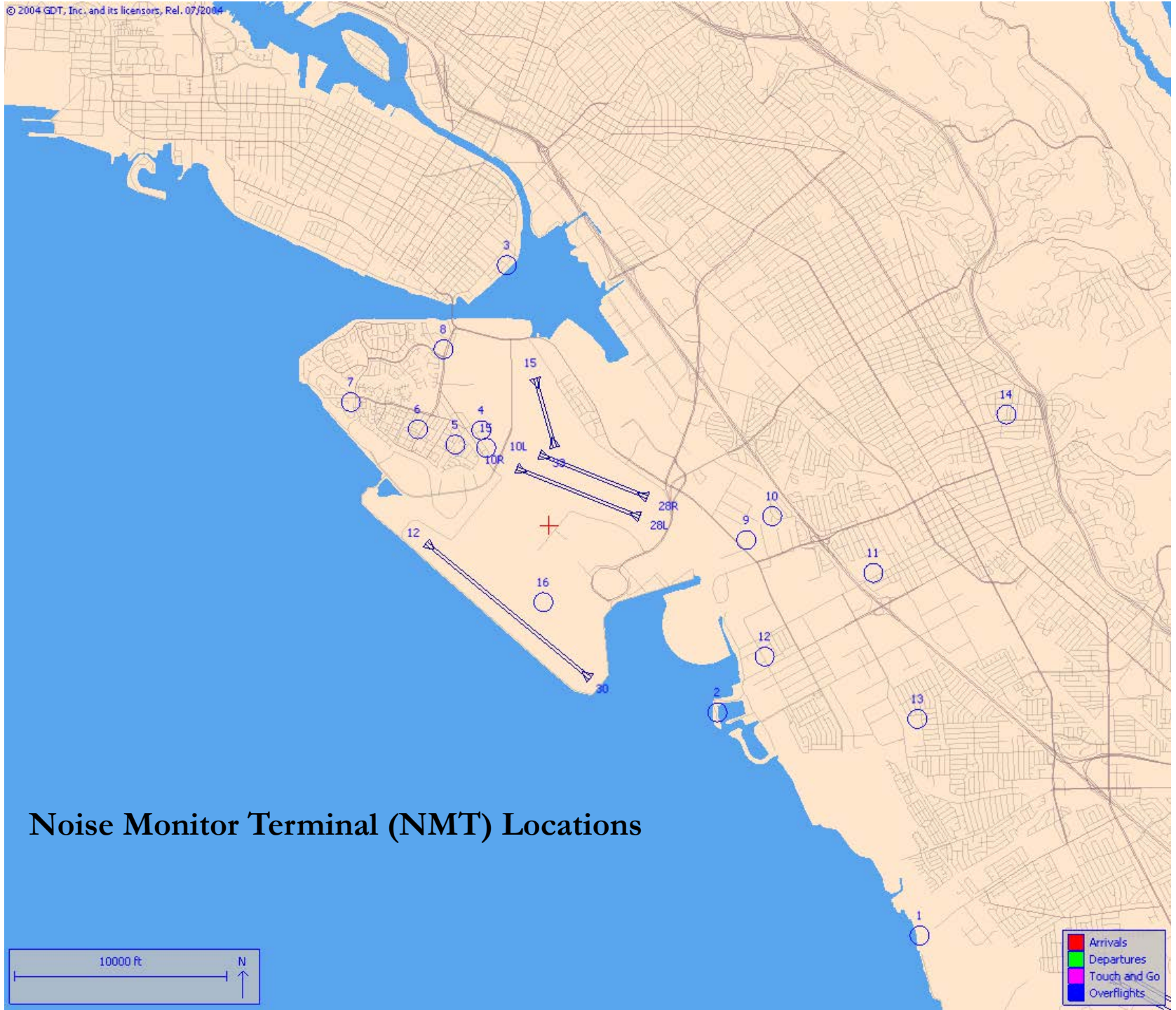
(a) For the current calendar quarter reported, ANOMS does not correlate all departures to their respective noise events; that is most, but not all, aircraft back-blast noise events are effectively correlated as the program software algorithms may misidentify an aircraft noise event.

Source: ANOMS (Airport Noise and Operations Monitoring System)

**Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM)
Second 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	
Second Quarter 2016 [B]						
	Total [X]	Est. Avg. Monthly [X/3]				
B763	112	37	5	69	77	26
DC10/MD10	65	22	17	66	75	16
MD11	210	70	65	66	75	19
A306	115	38	14	65	74	20
B757	186	62	23	65	74	22
B77L	77	26	6	65	74	20
Difference [A-B]						
DC10/MD10		-65	-15	-3	-3	-6
MD11		38	52	-4	-4	-5
A306		-29	-7	-2	-3	-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)



Noise Monitor Terminal (NMT) Locations