### NOISE FORUM SUMMARY

**North/South Field Working Groups** 

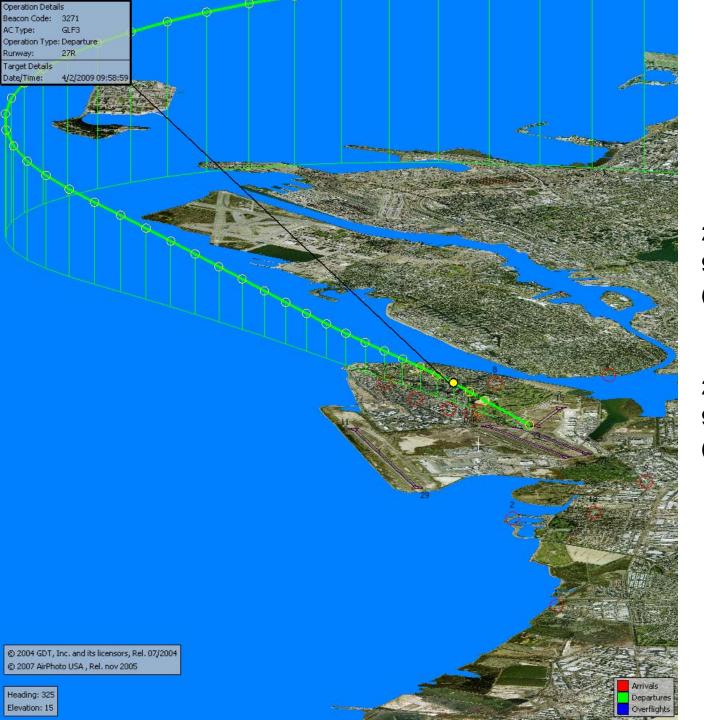
### **NOISE ABATEMENT REPORT**

**FOURTH QUARTER 2015** 

#### Compliance Monitoring Quarterly Summary Comparison Fourth Quarter 2015

	2014	1Q4	2015Q4		
	Compl.	N/C	Compl.	N/C	
Runway 28R/L Jet Departure Compliance	93%	7%	92%	8%	
Total Airport-wide Corporate Jet Departures	2,645	186	2,424	202	
Runway 10R/L Jet Landing Compliance	85%	15%	93%	7%	
Total Southeast Plan Corporate Jet Landings	383	68	139	10	
North Field VFR Departure Compliance	97%	3%	96%	4%	
Total Runways 28R/L & 33 Departures	964	27	528	22	
North Field Quiet Hours Compliance	81%	19%	51%	49%	
Total North Field Quiet Hours Departures	194	37	88	85	
Runway 30 BFI Right Turn Departure Compliance	100%	0%	100%	0%	
Total Runway 30 Turbojet Departures	14,322	1	16,532	11	
Silent8 Night Departure Compliance	99%	1%	99%	1%	
Total Runway 30 Night Turbojet Departures	2,531	30	3,181	40	
Runway 12 Night Departure Compliance	65%	35%	75%	25%	
Total Runway 12 Night Turbojet Departures	203	72	47	16	
Runway 30 East Turn Departure Compliance	98%	2%	98%	2%	
Total Runway 30 East Turn Departures	3,924	89	4,931	107	
100 Degree Radial Turbojet Landing Compliance	87%	13%	92%	8%	
Total 100 Degree Radial Turbojet Landings	2,161	282	2,338	216	
Engine Runup Program Compliance	100%	0%	100%	0%	
Total Evening and Nighttime Engine Runups	14	0	9	0	

Link to full report: <a href="http://flyquietoak.com/pages/reports/quarterly-noise-compliance.html">http://flyquietoak.com/pages/reports/quarterly-noise-compliance.html</a>



#### Runway 28R/L Jet Departure NAP

2015Q4 92% Compliance (2,626 departures)

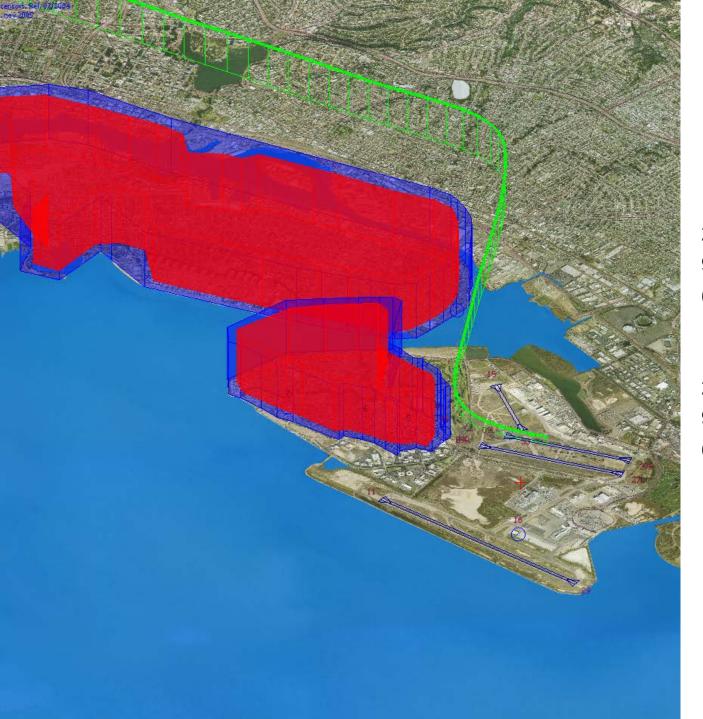
2014Q4 93% Compliance (2,831 departures)

# Operation Details Beacon Code: 1002 AC Type: Operation Type: Arrival Runway: Target Details Date/Time: © 2004 GDT, Inc. and its licensors, Rel. 07/2004 © 2007 AirPhoto USA, Rel. nov 2005 Heading: 325 Elevation: 15

# Runway 10R/L Jet Landing NAP

2015Q4 93% Compliance (149 landings)

2014Q4 85% Compliance (451 landings)



# VFR Aircraft Departure NAP

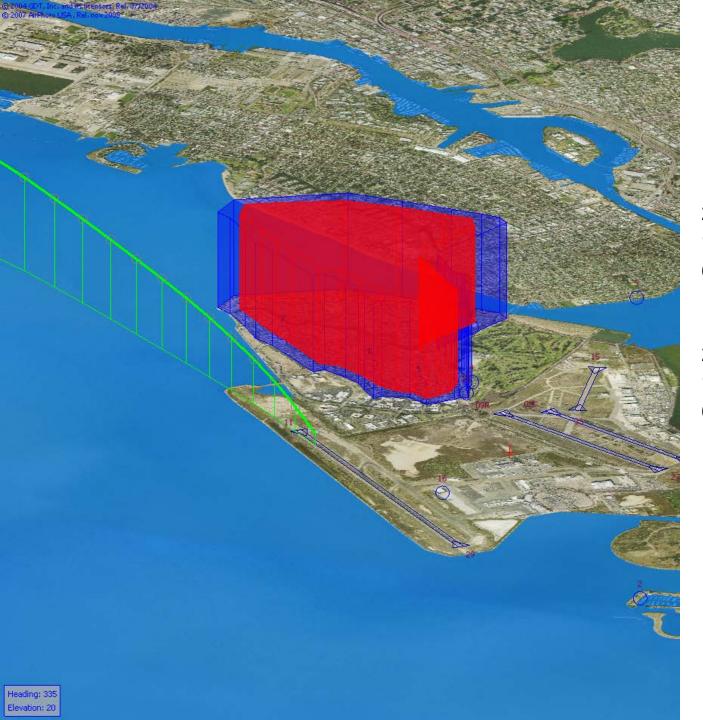
2015Q4 96% Compliance (550 departures)

2014Q4 97% Compliance (991 departures)

## North Field Quiet Hours NAP

2015Q4 51% Compliance (173 departures)

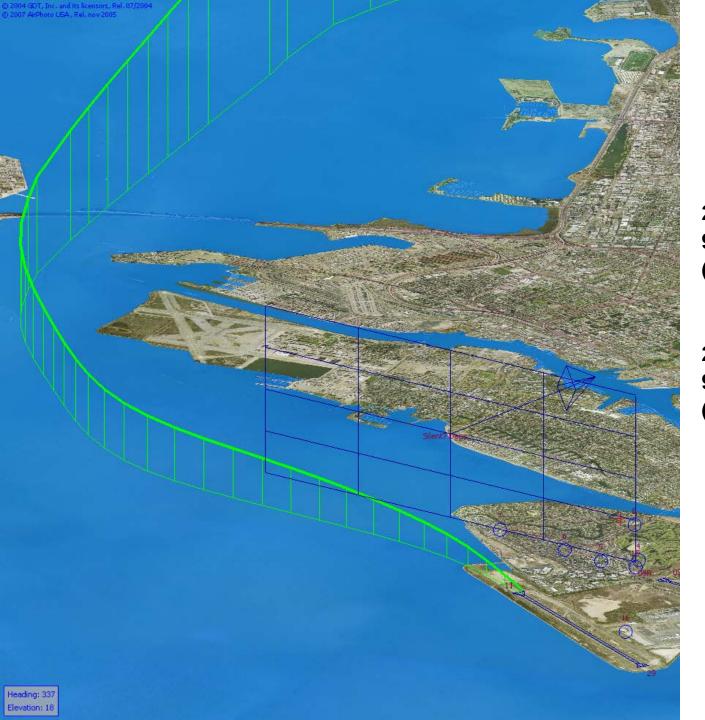
2014Q4 81% Compliance (231 departures)



## Runway 30 Bay Farm Right Turn NAP

2015Q4 100% Compliance (16,543 departures)

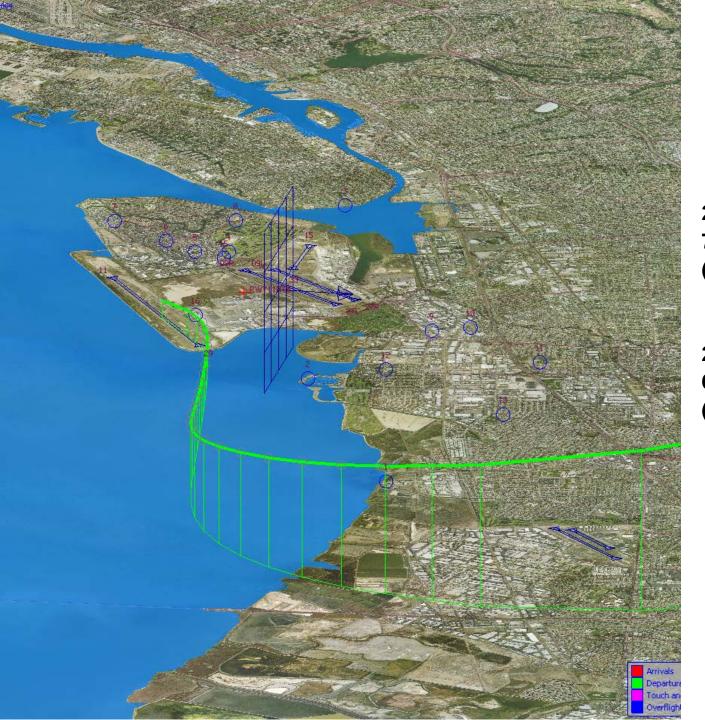
2014Q4 100% Compliance (14,323 departures)



### Silent8 Night Departure NAP

2015Q4 99% Compliance (3,221 departures)

2014Q4 99% Compliance (2,561 departures)



## Runway 12 Night Departure NAP

2015Q4 75% Compliance (63 departures)

2014Q4 65% Compliance (275 departures)



#### Runway 30 East Turn NAP

2015Q4 98% Compliance (5,038 departures)

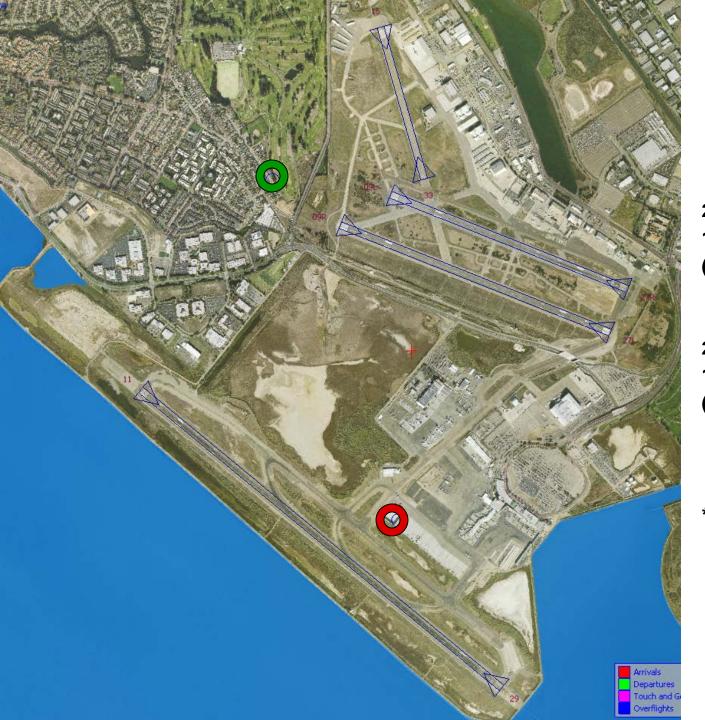
2014Q4 98% Compliance (4,013 departures)



100 Degree Radial At 3,000 ft. NAP

2015Q4 92% Compliance (2,338 landings)

2014Q4 87% Compliance (2,161 landings)



### Engine Run-up NAP

2015Q4 100% Compliance (9 engine run-ups)\*

2014Q4 100% Compliance (14 engine run-ups)

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

Table 1. North Field Night Aircraft Departure SEL Noise Measurements

Total Aircraft Departures = 173

#### Fourth Quarter 2015 (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			A	ircraft Nois SEL 85 - 89		Ai	Total Aircraft		
		Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Noise Events
1	2	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	3
2	14	1	0.0	0.2%	1	0.0	0.2%	0	0.0	0.0%	16
3	44	8	0.1	1.4%	1	0.0	0.2%	1	0.0	0.2%	54
4	66	41	0.5	7.2%	22	0.2	3.9%	3	0.0	0.5%	132
5	63	34	0.4	6.0%	14	0.2	2.5%	8	0.1	1.4%	119
6	41	9	0.1	1.6%	15	0.2	2.6%	3	0.0	0.5%	68
7	25	12	0.1	2.1%	3	0.0	0.5%	0	0.0	0.0%	40
8	36	17	0.2	3.0%	1	0.0	0.2%	0	0.0	0.0%	54
9	11	5	0.1	0.9%	5	0.1	0.9%	2	0.0	0.4%	23
10	38	11	0.1	1.9%	3	0.0	0.5%	1	0.0	0.2%	53
11	1	7	0.1	1.2%	1	0.0	0.2%	0	0.0	0.0%	9
12	16	2	0.0	0.4%	1	0.0	0.2%	0	0.0	0.0%	19
13	9	1	0.0	0.2%	0	0.0	0.0%	0	0.0	0.0%	10
14	5	2	0.0	0.4%	0	0.0	0.0%	0	0.0	0.0%	7
All NMTs	371	151	2	0	67	1	0	18	0	0	607

Table 2. Aircraft SEL Noise Measurements in Alameda - Total Aircraft Departures = 149

#### Fourth Quarter 2015 (10:00 p.m. to 7:00 a.m.)

NMT Number Events Belo	Aircraft Noise	Aircraft Noise Events SEL 80 - 84.9 dBA			Aircraft Noise Events SEL 85 - 89.9 dBA			Α	Total Aircraft		
	SEL 80 dBA	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Noise Events
3	44	8	0.1	3.3%	1	0.0	0.4%	1	0.0	0.4%	54
4	66	41	0.5	17.2%	22	0.2	9.2%	3	0.0	1.3%	132
5	63	34	0.4	14.2%	14	0.2	5.9%	8	0.1	3.3%	119
6	41	9	0.1	3.8%	15	0.2	6.3%	3	0.0	1.3%	68
7	25	12	0.1	5.0%	3	0.0	1.3%	0	0.0	0.0%	40
8	36	17	0.2	7.1%	1	0.0	0.4%	0	0.0	0.0%	54
Total	275	121	1.3		56	0.6		15	0.2		467

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

#### Fourth Quarter 2015 (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			A	Total Aircraft		
		Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Amount	Nightly Average	As Percentage of Departures	Noise Events
2	14	1	0.0	0.3%	1	0.0	0.3%	0	0.0	0.0%	16
9	11	5	0.1	1.5%	5	0.1	1.5%	2	0.0	0.6%	23
10	38	11	0.1	3.4%	3	0.0	0.9%	1	0.0	0.3%	53
11	1	7	0.1	2.1%	1	0.0	0.3%	0	0.0	0.0%	9
12	16	2	0.0	0.6%	1	0.0	0.3%	0	0.0	0.0%	19
13	9	1	0.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	10
14	5	2	0.0	0.6%	0	0.0	0.0%	0	0.0	0.0%	7
Total	94	29	0.3		11	0.1		3	0.0		137

#### Rolling Take-off Night Departure Procedure (1:00 to 5:00 AM) Fourth Quarter 2015, NMT 2 Aircraft Avg. Duration Recorded Noise SEL Average Lmax Average Departures Events (a) (seconds) Baseline (November 2002) [A] 104 B727 101 76 87 44 DC10/MD10 87 22 32 69 78 32 13 70 79 24 MD11 67 A306 21 67 77 25 Fourth Quarter 2015 [B] Est. Avg. Total [X] Monthly [X/3] B727 0 DC10/MD10 70 23 38 66 76 19 23 MD11 224 75 152 67 77 65 A306 151 50 75 74 17 B757 142 47 63 65 75 16 B777 0 Difference [A-B] B727 -76 -87 -104 -101 -44 DC10/MD10 -64 6 -3 -2 -3 -3 139 -2 -1 MD11 43 -2 -3 -8 A306 -17 54

<sup>(</sup>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 2014, NMT 2 Aircraft Avg. Duration Recorded Noise Lmax Average SEL Average Departures Events (a) (seconds) Baseline (November 2002) [A] 104 101 87 B727 76 44 87 DC10/MD10 32 69 78 22 32 24 MD11 13 70 79 67 67 25 A306 21 77 Fourth Quarter 2014 [B] Est. Avg. Monthly [X/3] Total [X] B727 0 DC10/MD10 114 38 47 68 77 20 MD11 172 57 95 68 77 19 A306 129 43 53 66 74 15 155 52 75 B757 57 66 14 B777 0 Difference [A-B] B727 -104 -101 -76 -87 -44 DC10/MD10 -49 15 -1 -1 -2 25 -2 -2 -5 MD11 82

32

-1

-3

-10

-24

A306

<sup>(</sup>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)

