



# Torrance Area Helicopter Activity

**To:** Bill Withycombe

**By:** Western Service Center, Operations Support  
Group

**Date:** April 17, 2012



Federal Aviation  
Administration



# Torrance Area Helicopter Activity

- City of Torrance requested FAA evaluate proposed changes to Torrance (TOA) ATCT Letter Of Agreement with local helicopter operators to improve noise abatement procedures
- Some changes involved moving published ground tracks while others requested higher minimum altitudes
- Current helicopter pattern altitude is 600' MSL, and a request was made to raise it to 1100' MSL

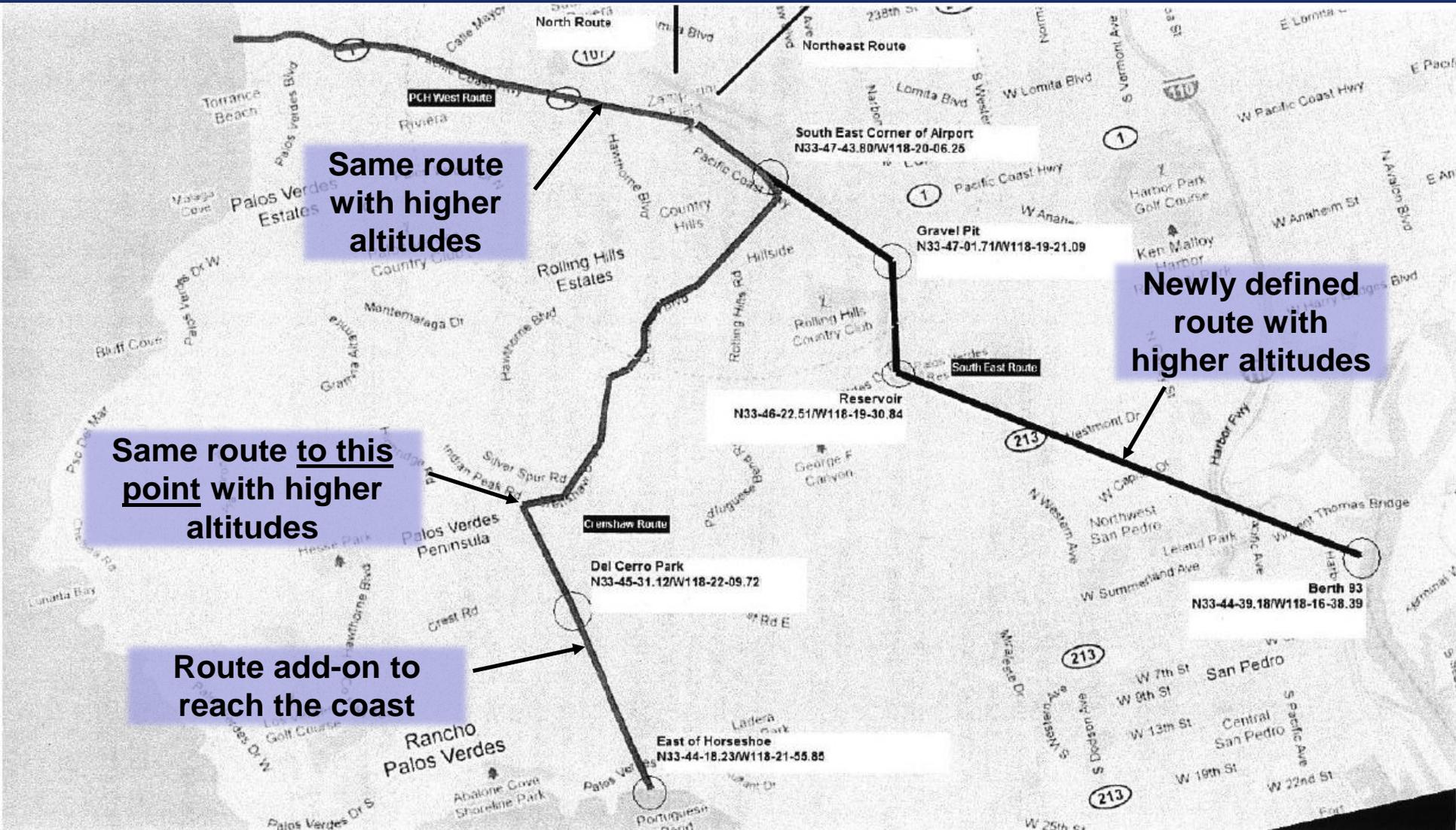


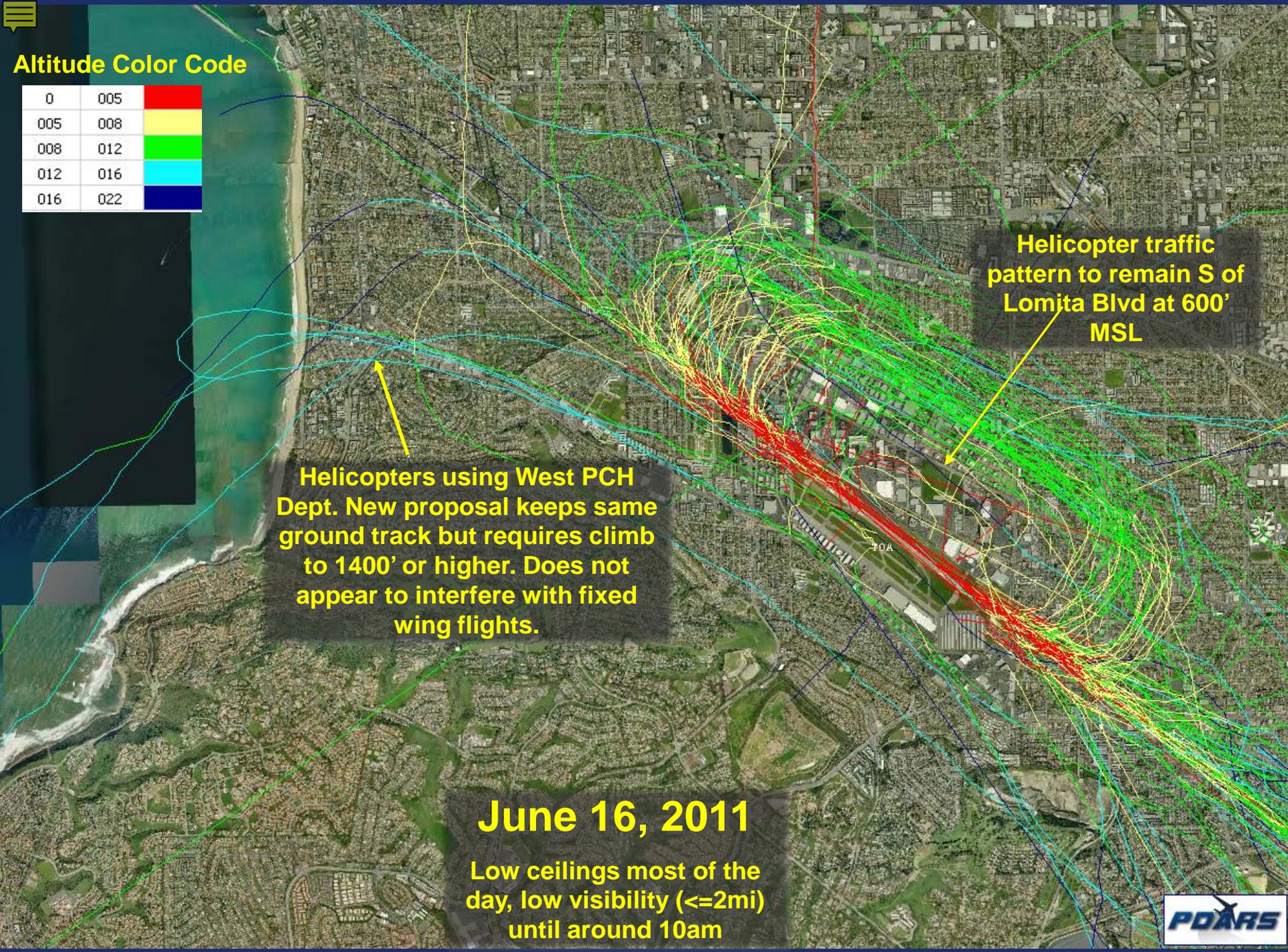
# Evaluation Parameters

- A number of days from 2010 and 2011 were evaluated
- Analyzed days with low ceilings as well as clear weather
- A 5nm diameter circle centered on TOA from surface to 3500' Mean Sea Level (MSL) defines evaluation area
- Performance Data Analysis and Reporting System (PDARS) was used for analysis
- Traffic data from Southern California TRACON (SCT)



# Proposed Routes





### Altitude Color Code

0	005	Red
005	008	Yellow
008	012	Green
012	016	Cyan
016	022	Dark Blue

Helicopters using West PCH Dept. New proposal keeps same ground track but requires climb to 1400' or higher. Does not appear to interfere with fixed wing flights.

Helicopter traffic pattern to remain S of Lomita Blvd at 600' MSL

**June 16, 2011**

Low ceilings most of the day, low visibility (<=2mi) until around 10am



Altitude (100s ft)

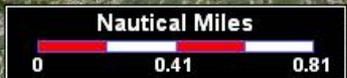
From	To	Color
0	5	Red
5	8	Yellow
8	12	Green
12	16	Cyan
16	22	Blue
22	28	Orange
28	35	Brown

Helicopters using West PCH Route. New proposal keeps same ground track but requires climb to 1500' or higher. Most current flights are at 1200' or higher.

Helicopter traffic pattern to remain S of Lomita Blvd at 600' MSL

**June 16, 2011**

Low ceilings most of the day, low visibility (<=2mi) until around 10am



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Currently helicopter arvl/depts from SE are to remain south of RWY 29L/11R traffic and report inbound over gravel pit. No specified routing.

New helicopter arvl/dept from SE are to travel over World Cruise Center, reservoir, gravel pit and SE corner of airport.

**June 16, 2011**

Low ceilings most of the day, low visibility (<=2mi) until around 10am



# Weather for July 7, 2011

Time (PDT)	Temp.	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Conditions
6:47 AM	59.0 °F	55.4 °F	88%	<b>29.95</b> in	7.0 mi	SW	4.6 mph	-	N/A	Rain	Light Rain
METAR KTOA 071347Z 22004KT 7SM -RA SCT010 BKN015 OVC020 15/13 A2995											
7:47 AM	59.0 °F	55.4 °F	88%	<b>29.96</b> in	7.0 mi	West	4.6 mph	-	N/A		Mostly Cloudy
METAR KTOA 071447Z 28004KT 7SM SCT010 BKN015 BKN020 15/13 A2996 RMK RAE15											
8:47 AM	60.8 °F	53.6 °F	77%	<b>29.94</b> in	7.0 mi	SW	5.8 mph	-	N/A		Mostly Cloudy
METAR KTOA 071547Z 22005KT 7SM BKN010 BKN020 16/12 A2994											
9:50 AM	64.4 °F	53.6 °F	68%	<b>29.95</b> in	7.0 mi	SSW	11.5 mph	-	N/A		Mostly Cloudy
METAR KTOA 071650Z 21010KT 7SM SCT010 BKN015 18/12 A2995											
10:47 AM	59.0 °F	53.6 °F	82%	<b>29.96</b> in	7.0 mi	WSW	11.5 mph	-	N/A		Mostly Cloudy
METAR KTOA 071747Z 25010KT 7SM BKN015 15/12 A2996											
11:53 AM	60.8 °F	44.6 °F	55%	<b>29.96</b> in	7.0 mi	WSW	15.0 mph	-	N/A		Mostly Cloudy
METAR KTOA 071853Z 24013KT 7SM SCT015 <b>BKN150</b> 16/07 A2996 <i>Ceiling raises significantly just before Noon Pacific</i>											
12:47 PM	60.8 °F	48.2 °F	63%	<b>29.94</b> in	10.0 mi	WSW	17.3 mph	-	N/A		Mostly Cloudy
METAR KTOA 071947Z 25015KT 10SM SCT020 BKN220 16/09 A2994											
1:47 PM	62.6 °F	48.2 °F	59%	<b>29.93</b> in	10.0 mi	WSW	17.3 mph	-	N/A		Scattered Clouds
METAR KTOA 072047Z 25015KT 10SM SCT025 B220 17/09 A2993											
2:47 PM	60.8 °F	48.2 °F	63%	<b>29.90</b> in	10.0 mi	SW	17.3 mph	25.3 mph	N/A		Mostly Cloudy
METAR KTOA 072147Z 23015G22KT 10SM SCT025 BKN250 16/09 A2990											
3:47 PM	59.0 °F	48.2 °F	67%	<b>29.89</b> in	15.0 mi	WSW	11.5 mph	17.3 mph	N/A		Mostly Cloudy
METAR KTOA 072247Z 24010G15KT 15SM SCT025 BKN250 15/09 A2989											
5:47 PM	57.2 °F	46.4 °F	67%	<b>29.88</b> in	10.0 mi	WSW	17.3 mph	-	N/A		Mostly Cloudy
METAR KTOA 080047Z 24015KT 10SM BKN030 BKN070 14/08 A2988											
7:47 PM	55.4 °F	39.2 °F	54%	<b>29.87</b> in	10.0 mi	WSW	13.8 mph	-	N/A		Mostly Cloudy
METAR KTOA 080247Z 24012KT 10SM SCT030 BKN050 13/04 A2987											

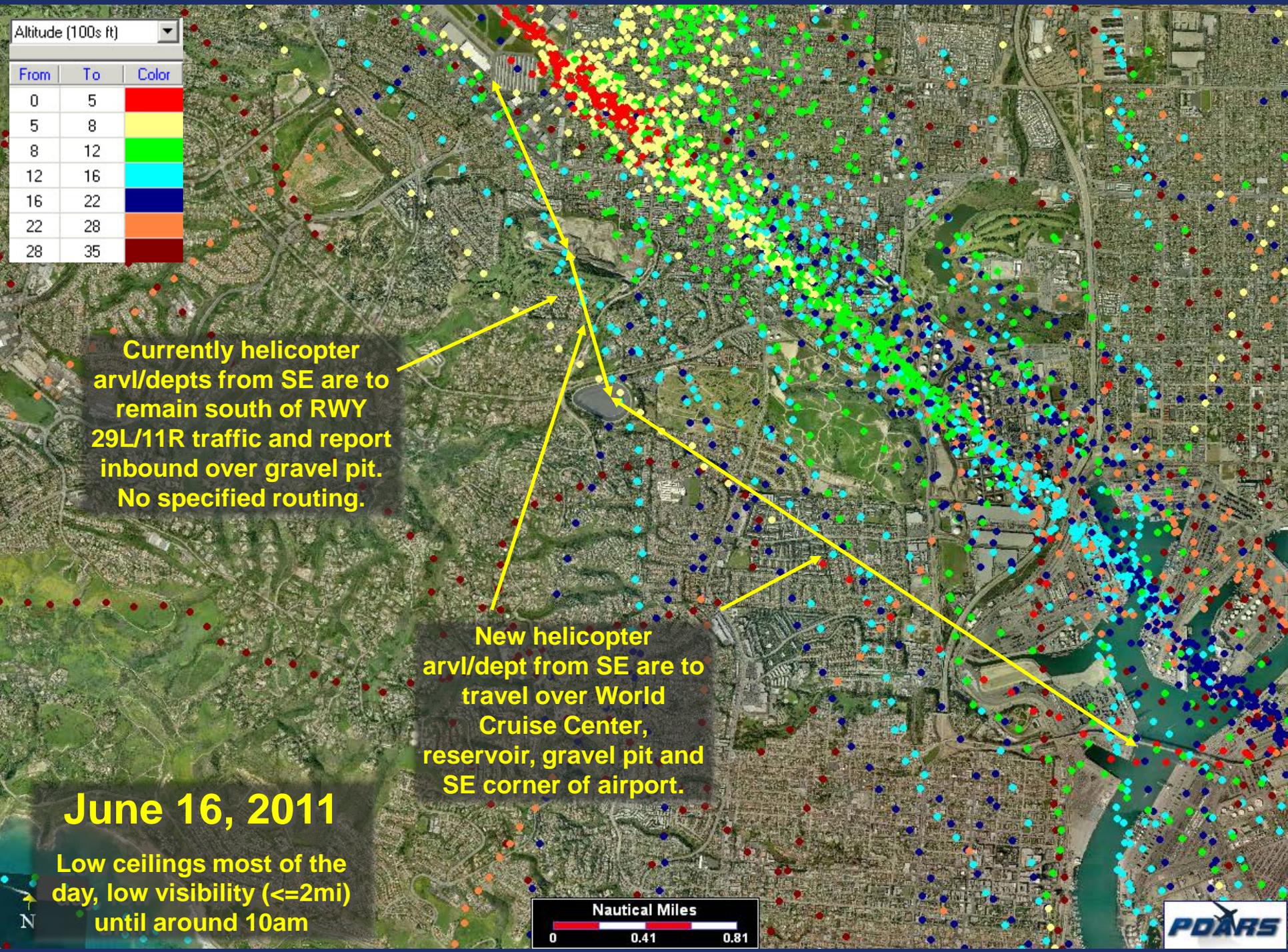
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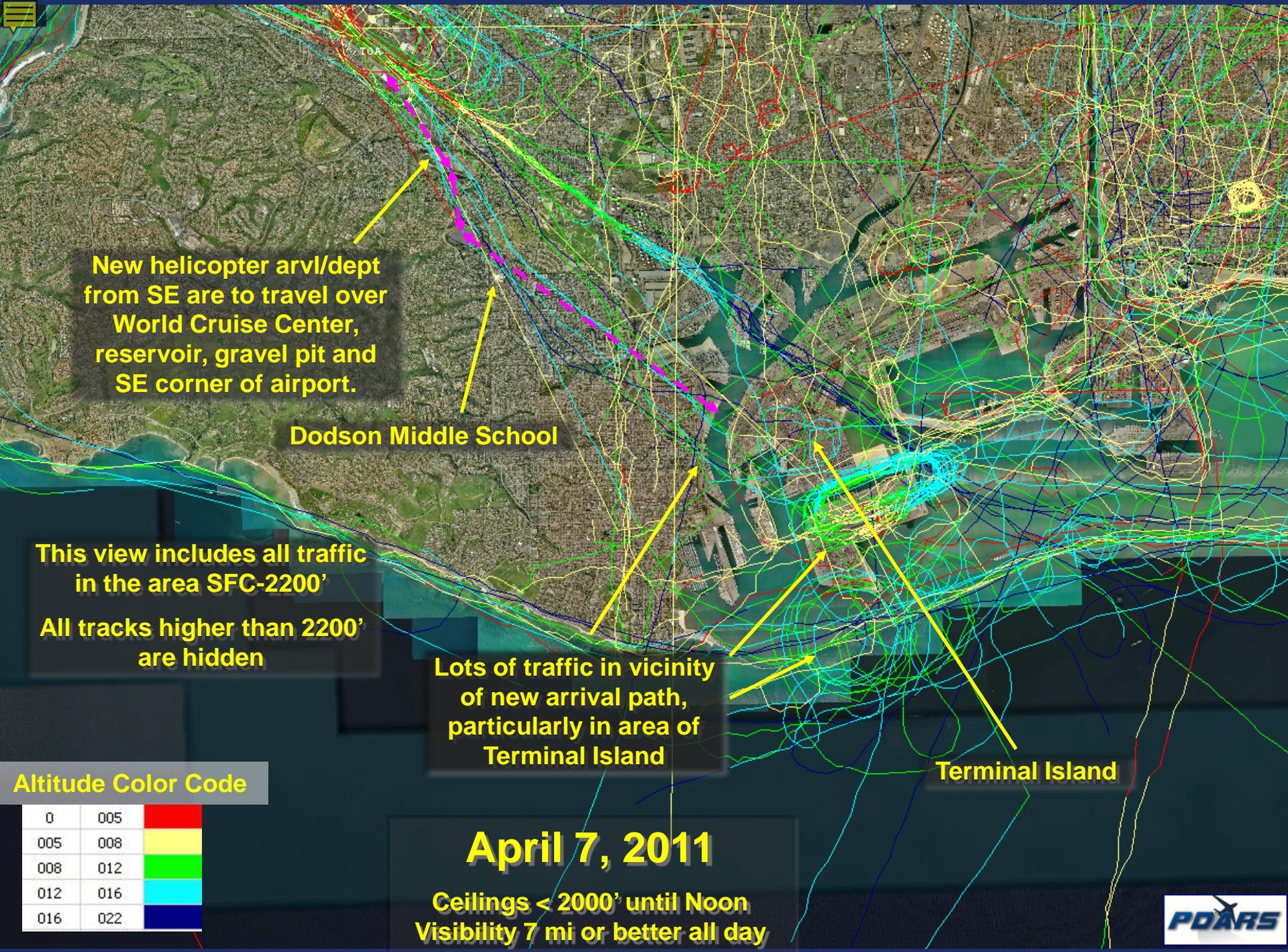
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New helicopter arvl/dept from SE are to travel over World Cruise Center, reservoir, gravel pit and SE corner of airport.

**June 16, 2011**

Low ceilings most of the day, low visibility (<=2mi) until around 10am





New helicopter arvl/dept from SE are to travel over World Cruise Center, reservoir, gravel pit and SE corner of airport.

Dodson Middle School

This view includes all traffic in the area SFC-2200'

All tracks higher than 2200' are hidden

Lots of traffic in vicinity of new arrival path, particularly in area of Terminal Island

Terminal Island

**Altitude Color Code**

0	005	
005	008	
008	012	
012	016	
016	022	

**April 7, 2011**

Ceilings < 2000' until Noon  
 Visibility 7 mi or better all day

Altitude (100s ft) ▼

From	To	Color
0	5	Red
5	8	Yellow
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28	35	Brown

New helicopter route from SE travel over World Cruise Center, reservoir, gravel pit and SE corner of airport.

Dodson Middle School

This view includes all traffic in the area SFC-3500'  
All tracks higher than 3500' are hidden

Lots of traffic in vicinity of new arrival path, particularly near cruise center and surrounding area

**April 7, 2011**

Ceilings < 2000' until Noon  
Visibility 7 mi or better all day



## Altitude Color Code

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005	008	
008	012	
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**Torrance Departures**

**Oct 19, 2010**

Low ceilings most of the day,  
Tstms throughout the day. Lower  
vis and rain late afternoon.

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**Torrance Arrivals**

**Oct 19, 2010**

Low ceilings most of the day,  
Tstms throughout the day. Lower  
vis and rain late afternoon.

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**Torrance Departures**

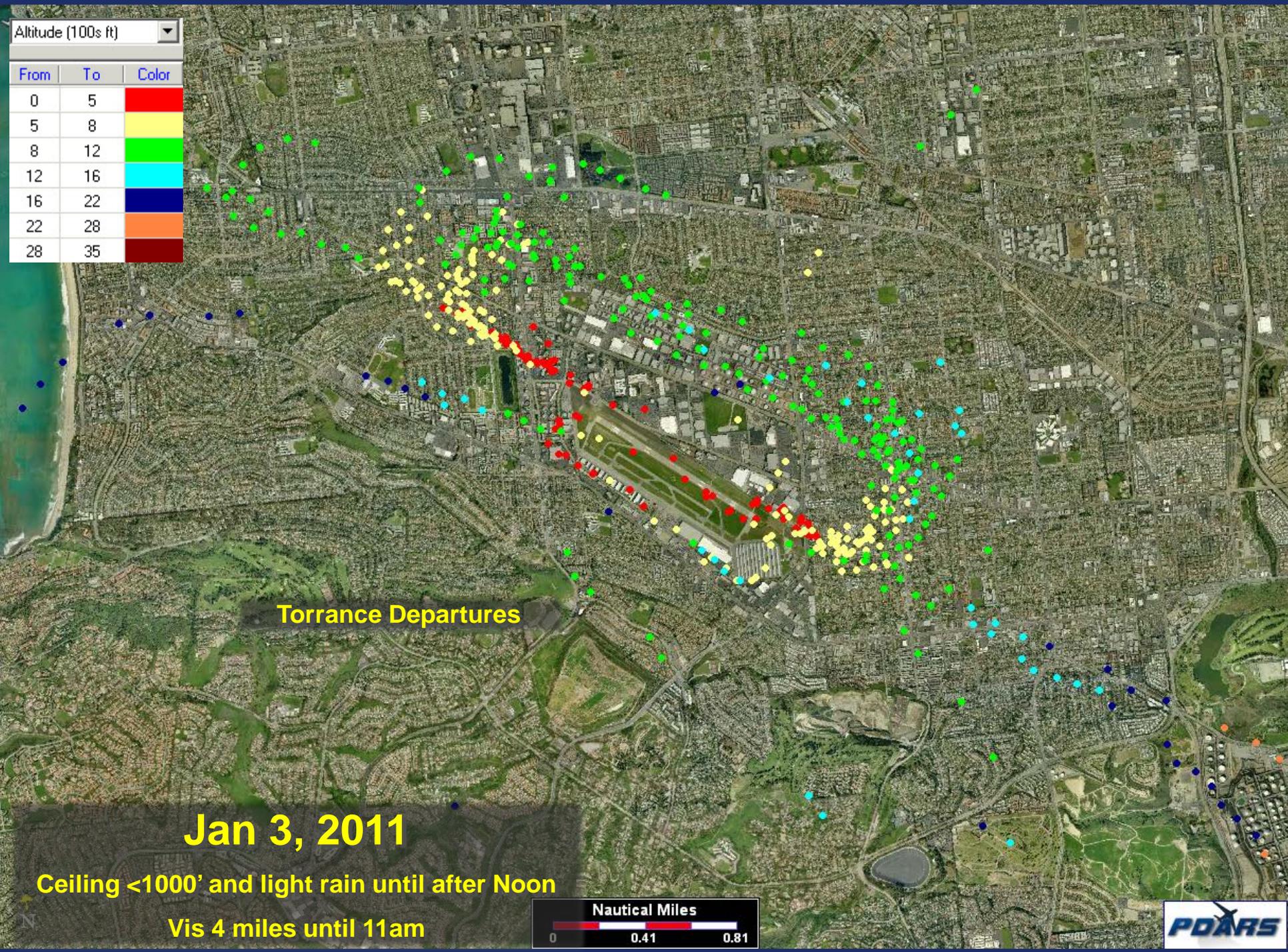
**Jan 3, 2011**

**Ceiling <1000' and light rain until after Noon  
Vis 4 miles until 11am**



Altitude (100s ft) ▾

From	To	Color
0	5	Red
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12	16	Cyan
16	22	Dark Blue
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**Torrance Departures**

**Jan 3, 2011**

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**Vis 4 miles until 11am**



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**Torrance Arrivals**

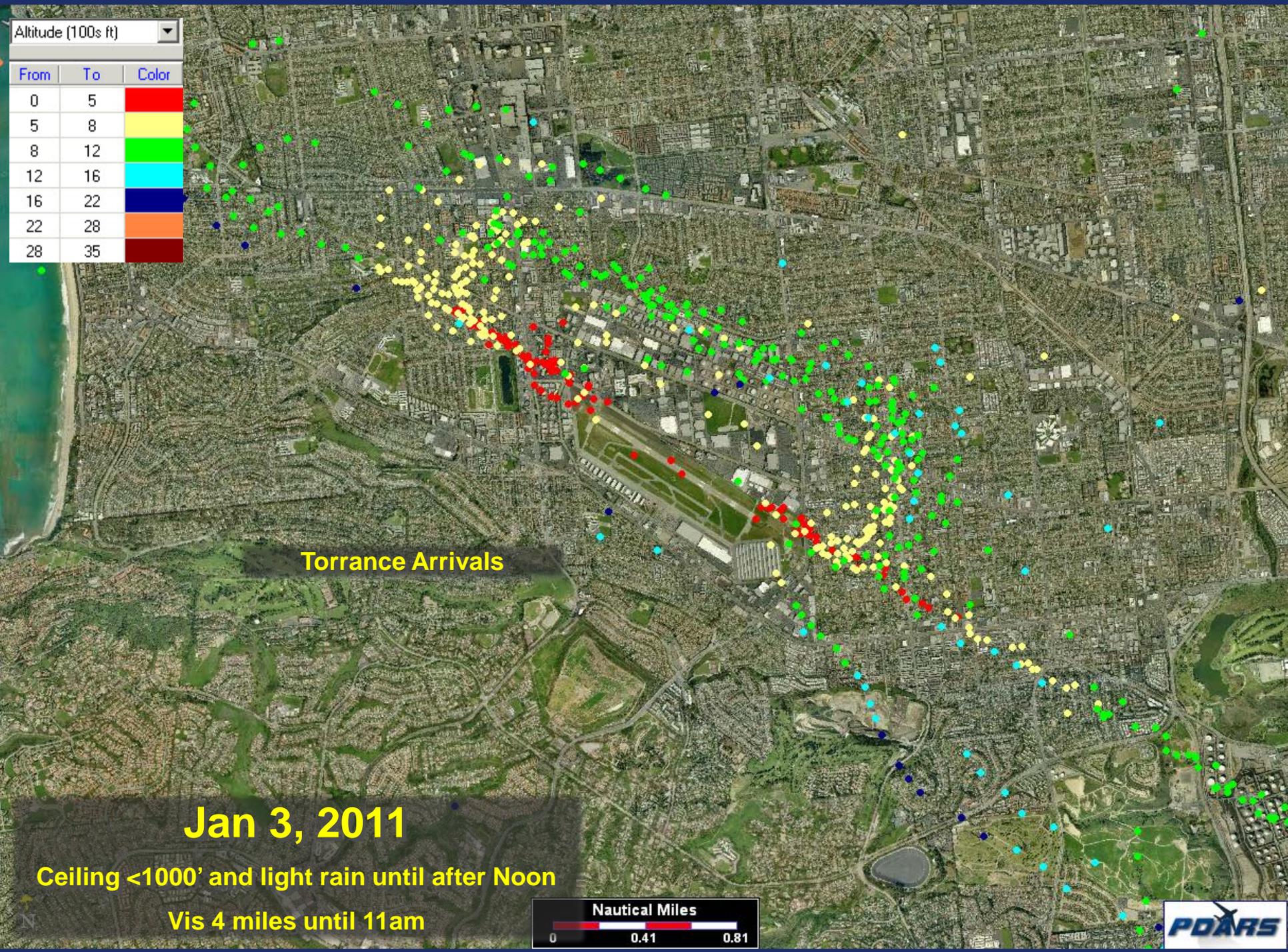
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**Torrance Arrivals**

**Jan 3, 2011**

**Ceiling <1000' and light rain until after Noon**

**Vis 4 miles until 11am**



# Torrance Departures

Altitude (100s ft) ▾

From	To	Color
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Potential mixing of fixed wing and helicopter near shoreline

All radar targets visible over peninsula area appear to be above 2800', which should be at least 1000' AGL

## April 7, 2011

Ceilings < 2000' until Noon  
Visibility 7 mi or better all day



This view includes all traffic  
in the area SFC-3500'

All tracks higher than 3500'  
are hidden

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Current SW area tracks do appear  
to roughly follow the South  
Crenshaw routing

2 tracks are between 16-2200'

2 tracks are between 22-2800'

2 tracks are above 2800'

Highest ground elevation – 1200'

Extremely busy in vicinity  
of new arrival path,  
particularly in Terminal  
Island area

**July 13, 2011**

Ceilings about 3000' all day  
Visibility 10 mi or better all day



# Observations

- Current West PCH and South Crenshaw routes appear to be followed reasonably well
- Most aircraft following West PCH route appear to already be flying at or above altitude requested by city of Torrance or very slightly below it
- Existing low altitude air traffic over Palos Verdes Peninsula is light enough that helicopters could fly at 2000' MSL without interfering with fixed wing aircraft



# Observations - *continued*

- Helicopters following proposed SE route will encounter significant traffic near cruise ship terminal and surrounding area; flying at a higher altitude will only increase traffic complexity
- Existing SE area path has no defined routes (only to remain south of fixed wing arrival/departure course of RWY29L/11R), which allow helicopters to avoid higher density traffic areas
- Much of existing traffic in SE area is flying at nearly the requested altitude



# Questions?

