

SCCOOS

Southern California Coastal Ocean Observing System
&

HPWREN

High-Performance Wireless Research and Education Network



Personnel

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Scripps Institution of Oceanography

www.sccoos.org

CALPOLY-SLO

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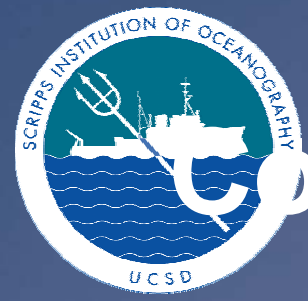
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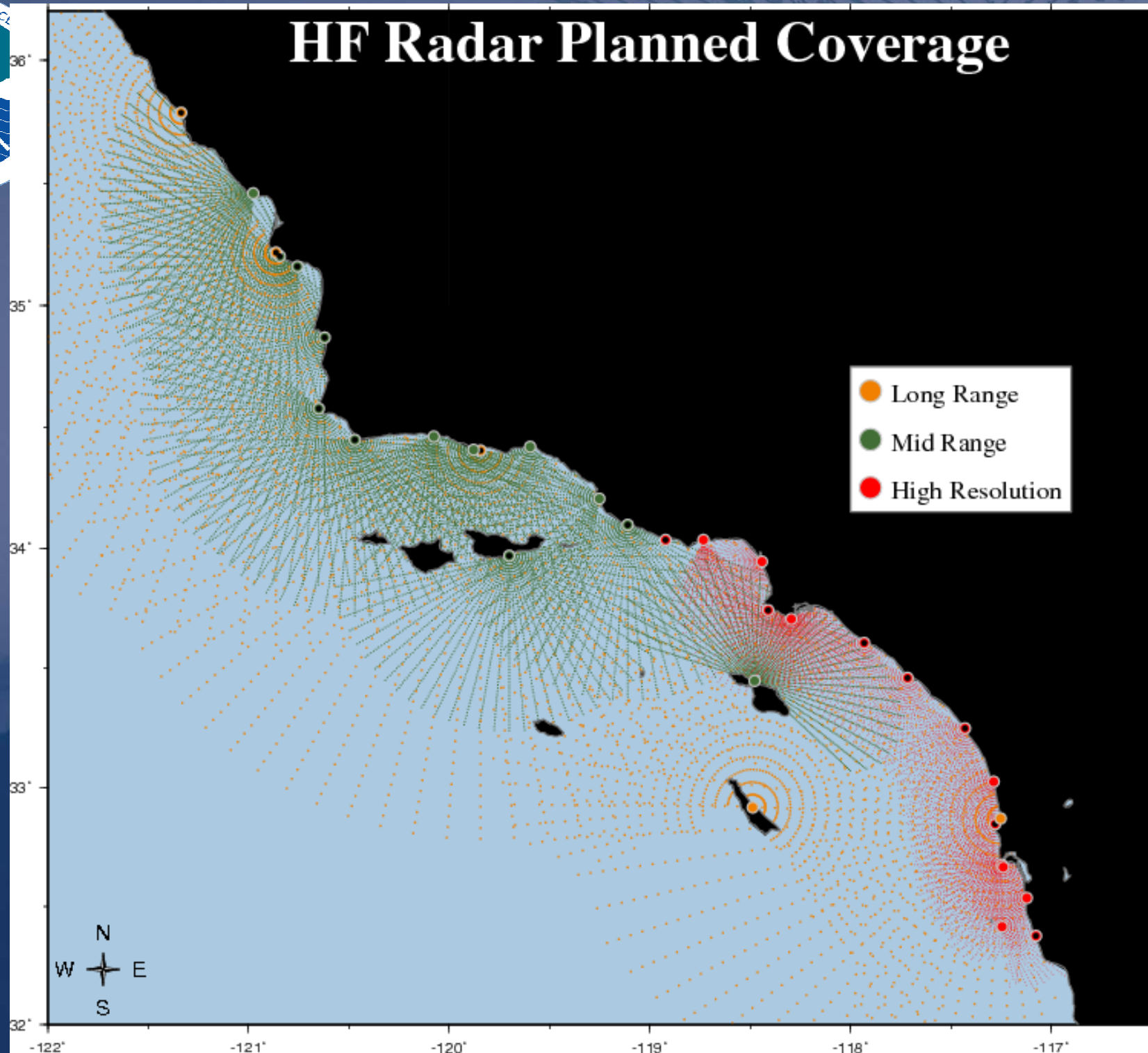


Coastal Observing Applications

- Assessment of Ecosystem Trends
- Long Term Trends: Climate Change
- Military Applications
- Oil Spill Response
- Regional Ocean Modeling
- Search and Rescue
- Storm Water Discharges and Outfall Tracking
- Vessel Traffic Aids
- Water Quality
- Wind and Wave Conditions

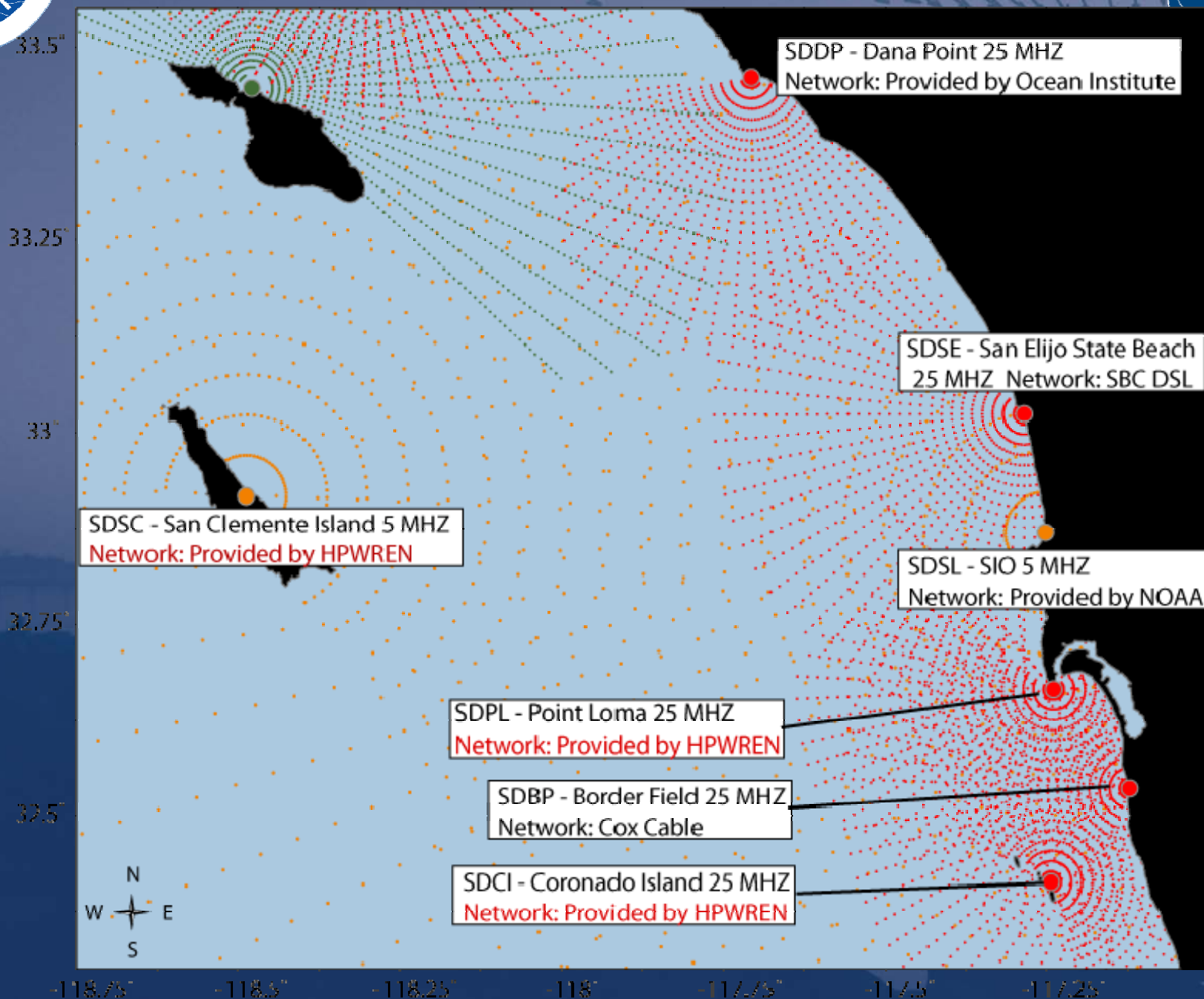


HF Radar Planned Coverage





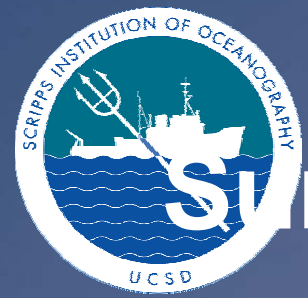
HF Radar Sites





HF Radar Equipment





CORONADO ISLAND Surface Current Mapping System



Meteorological Station



Solar and wind powered system



Wireless communications

Wind generator



Surface Current Mapping

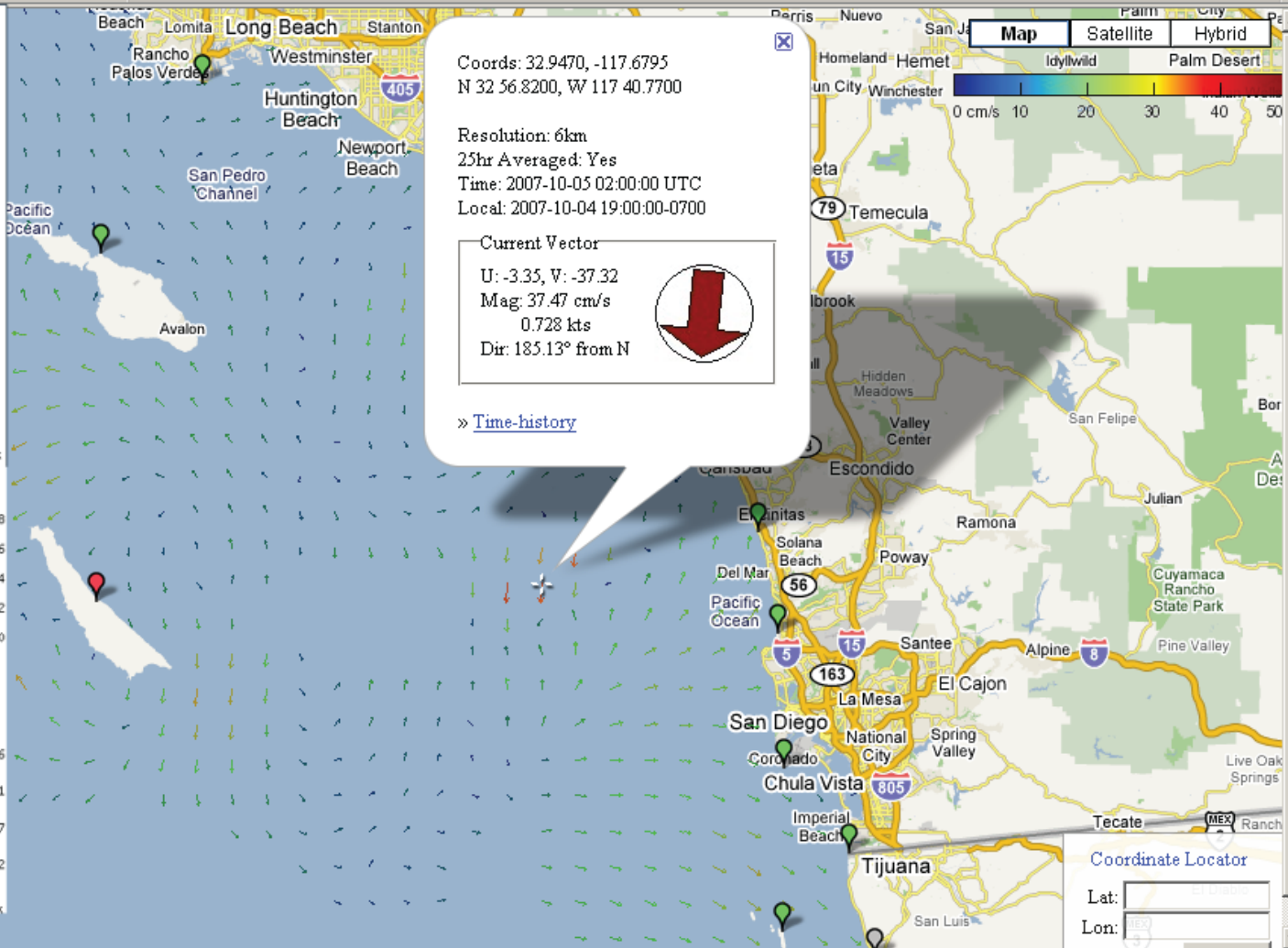
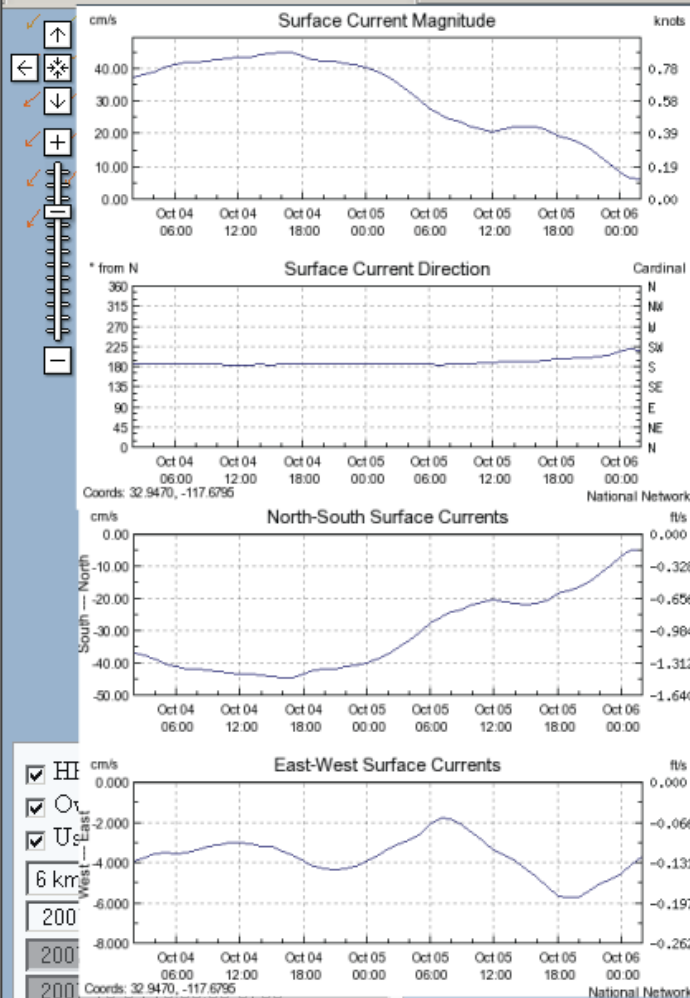


SCCOOS Data Products » RTV -- Fullscreen - Mozilla Firefox

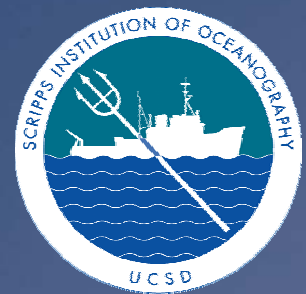
File Edit View History Bookmarks Tools Help

http://www.sccoos.org/data/hfrnet/fullpage.php?l=33.431441,-119.399414&zz=7&type=0&sta=8&info=0&avgs=1¤ts=1&marks=0&r macbook printscreen

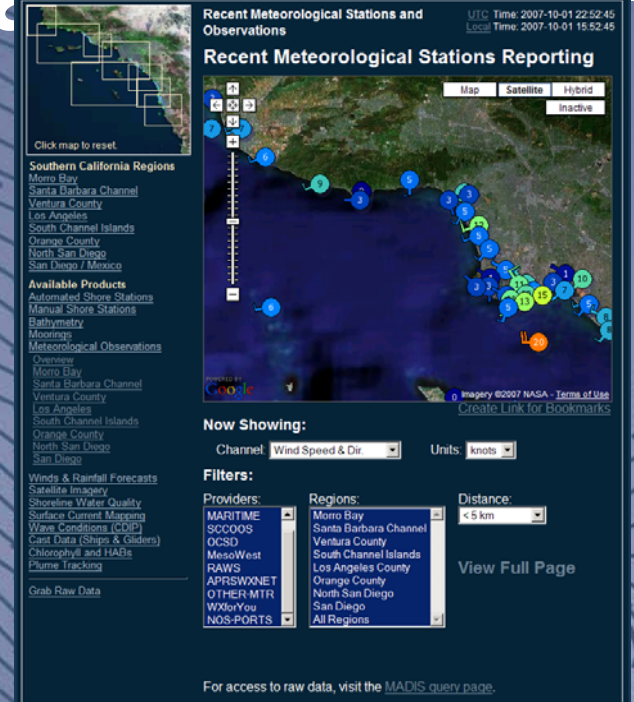
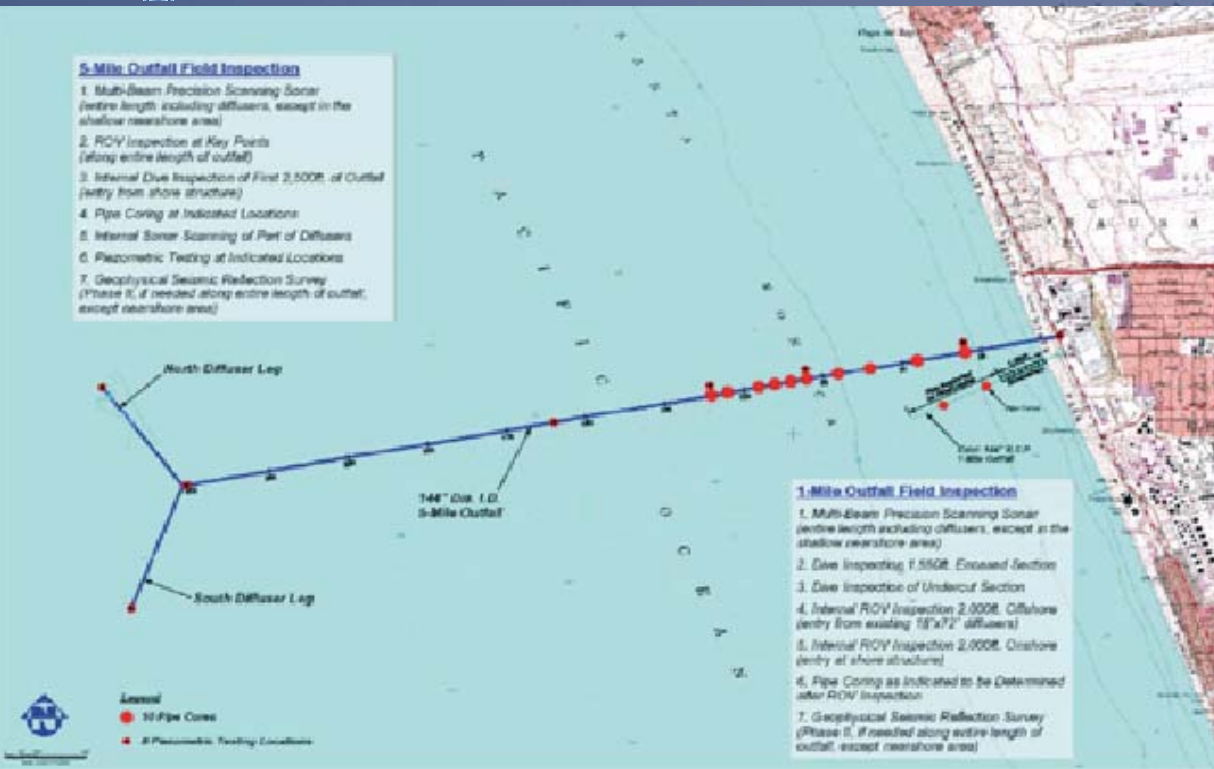
SCCOOS Data Products » RTV -- F... Surface Currents » Time series plots



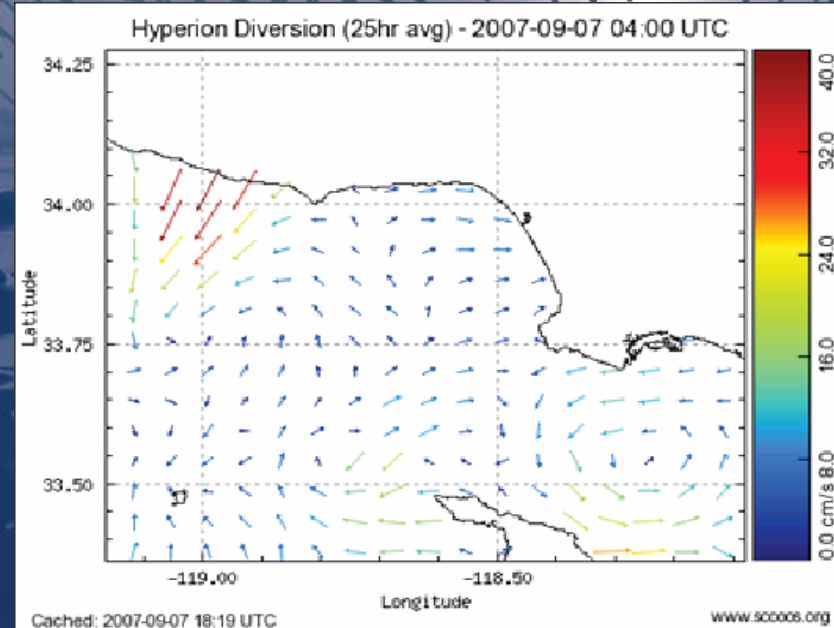
http://www.sccoos.org/data/hfrnet/showplots.php?lat=32.9470&lon=-117.6795&mask=6km&time=1191549600&avgs=1

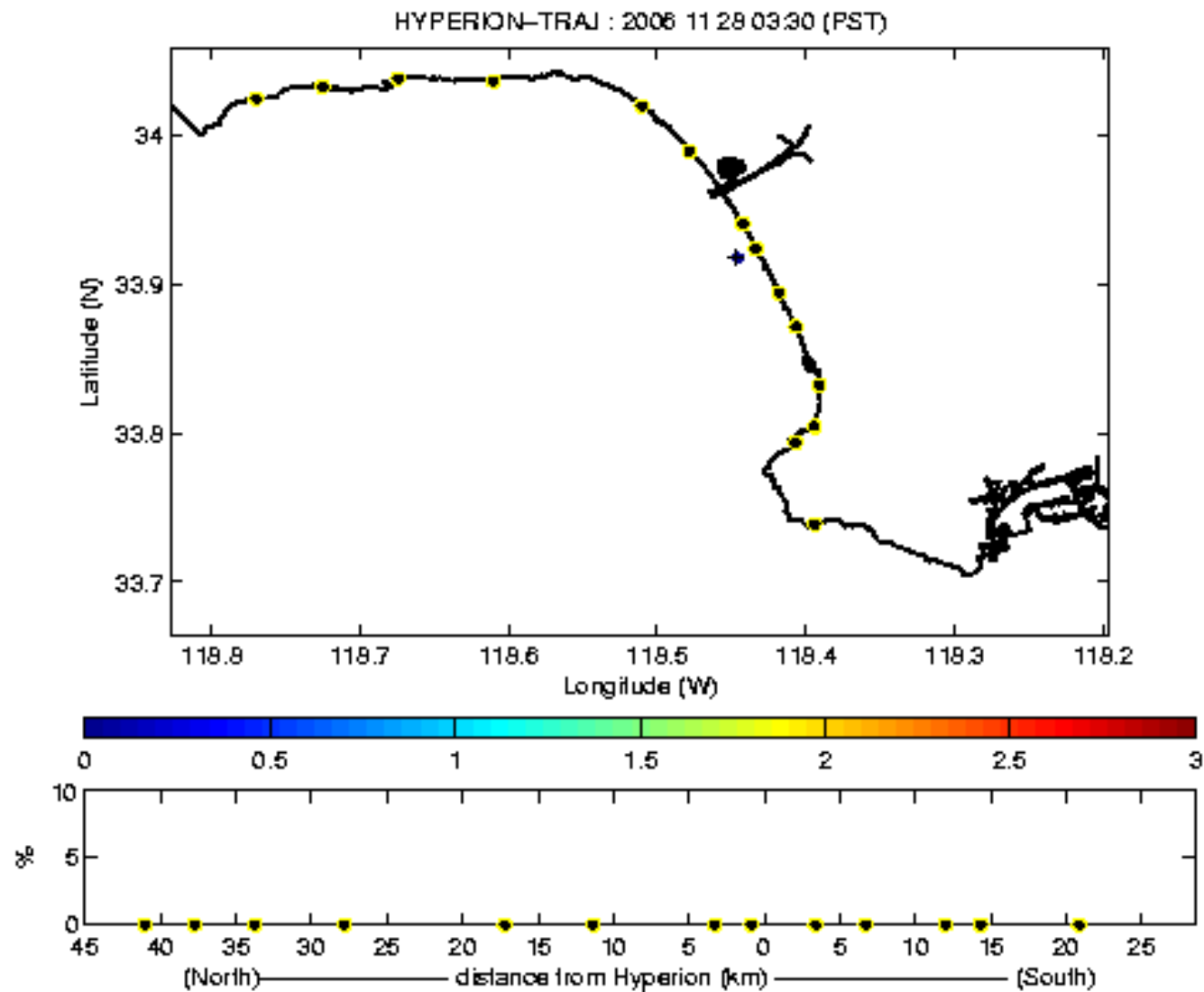


Hyperion Outfall Impacts Santa Monica Bay

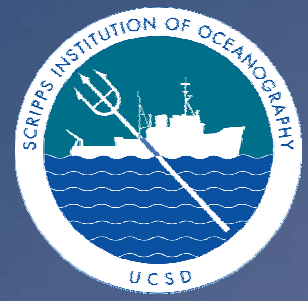


November 28-30, 2006 Inspection





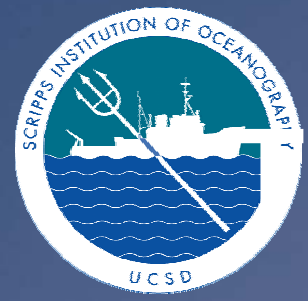
**Realtime trajectory tool implemented at surfacing outfall.
Provides indication of beach impact.**



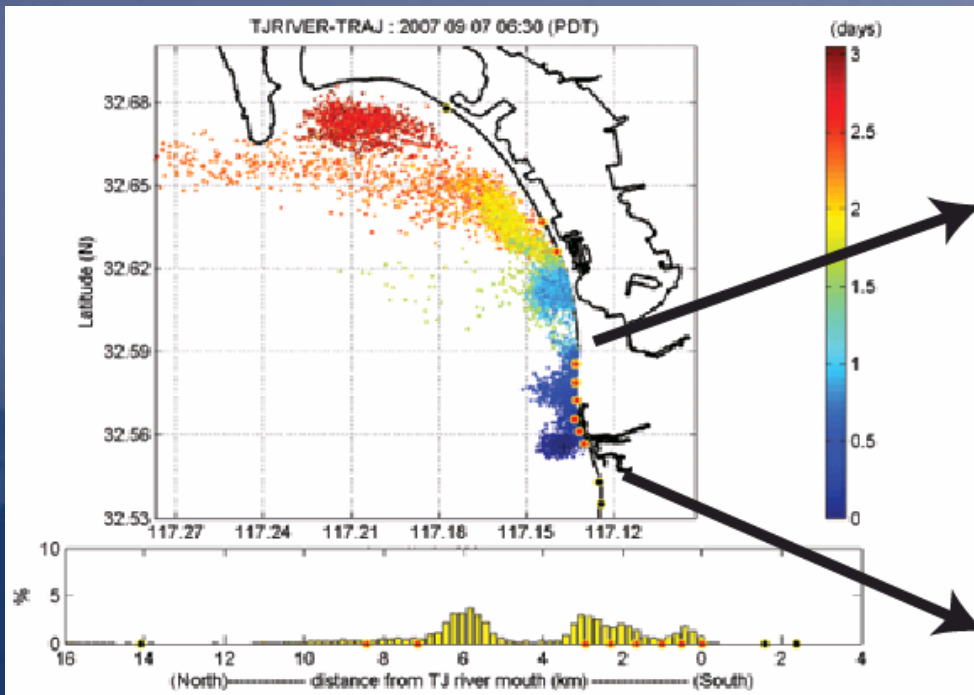
Network Usage



- Each radar site produces ~ 100 GB/year
- Only processed data is sent to SIO servers
- Radial currents transmitted hourly ~ 3 GB/yr
- Occasional maintenance with remote login
- Low bandwidth operation

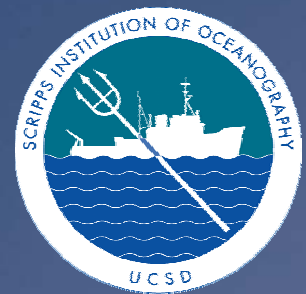


Tijuana River Plume Tracking



Date: 2007-09-07 13:30 GMT (2007-09-07 06:30 PDT)

Station ID	Station Name	Particle Count	Plume Potential
1	Coronado (North Island)	0	NO
2	Silver Strand	12	YES
3	Silver Strand Beach	42	YES
4	Carnation Ave.	206	YES
5	Imperial Beach Pier	123	YES
6	Cortez Ave.	101	YES
7	End of Seacoast Dr.	33	YES
8	3/4 mi. N. of TJ River Mouth	136	YES
9	Tijuana River Mouth	50	YES
10	Monument Rd.	0	NO
11	Board Fence	0	NO



National Network Realtime Data page



San Diego, Point Loma (SDPL)

Network: SIO

Latitude: 32.6658

Longitude: -117.2396

Arrival Time: 2006-08-17 17:11:03

Center Frequency: 25.27 MHz

Beampattern: Measured

Most Recent File:

Rad_m_SDPL_06-08-17_1600.hfrss10lluv

File Format: hfrss10lluv

/Volumes/DataDrive: Used: 18.2 GB, Free: 23.0 GB

/: Used: 5.8 GB, Free: 8.5 GB

Receiver Temp.: 43 C

AWG 3-Module Temp.: 50 C

Tx Drive: Pulse

Tx Forward Power: 32.3 W

Tx Forward Reflected: 3.4 W

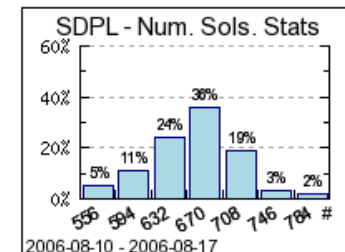
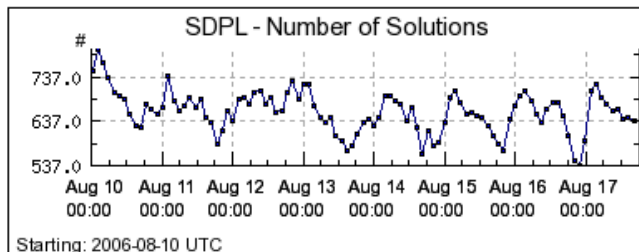
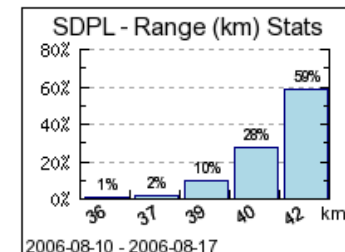
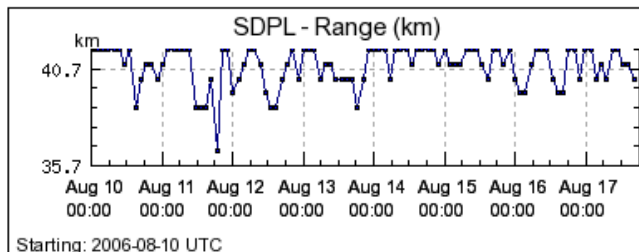
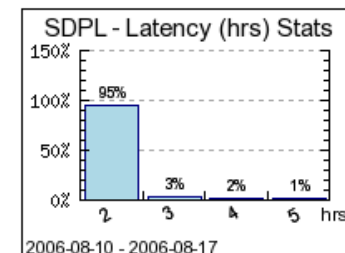
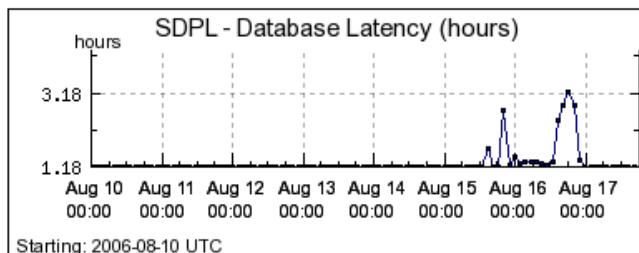
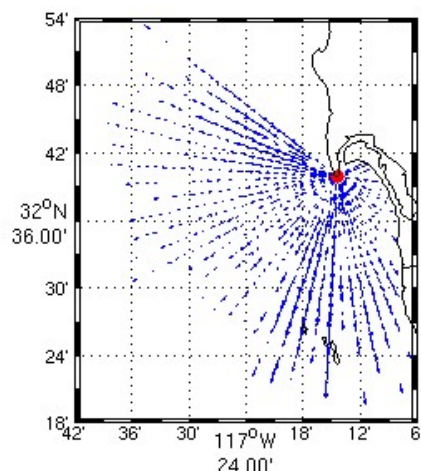
[More Plots](#)

Age: 2:16 (H:MM)

Page Generated: 2006-08-17 18:16:44 GMT

UTC Time: 2006-08-17 18:17:00

Local Time: 2006-08-17 18:17:00



Time Range: 2006-08-10 - 2006-08-17 UTC

# Hours	# Records	# Missing	% Available
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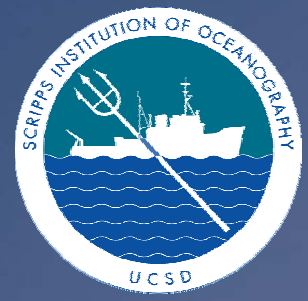
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# Sols.	537.00	799.00	663.00	658.88	47.31

FROM: 2006 08

10

TO: 2006 08 17

Generate Plots



Thank You!