



NOAA IOOS Program Office
Regional Status Assessment for
Central and Northern California Ocean
Observing System (CeNCOOS)

June 4, 2008

Steven R. Ramp, CeNCOOS Director

Heather Kerkering, CeNCOOS Coordinator



NOAA

NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE



RA Structure and Governance

- RA leadership and staff
 - Steve Ramp, Executive Director
 - Strategic plan, conceptual design
 - Securing funding for the organization
 - Heather Kerkering, Coordinator
 - Manages multiple efforts – from collaboration to products
 - Partnering, policy, outreach, stakeholder needs
 - Tom Wadsworth
 - Web manager, OceanObs, outreach
 - To Be Hired 1 Oct, 2008
 - Chief Product Developer

RA Structure and Governance

- Steven Le (SAIC), DMAC
 - Compliance with national standards
 - Interoperability
 - Implementation
- Distributed among the partners
 - NMFS ERD – LAS and database management
 - NMFS sanctuaries - OceanObs
 - SFSU – Web page architecture
 - UC Davis – Product Developer
 - Humboldt State – GIS Expertise

RA Structure and Governance

- Structure
 - Operate through a Memorandum of Agreement with 60+ Partners
 - Work with SCCOOS through a MOU
- Institutional Setting
 - CeNCOOS is housed within the Monterey Bay Aquarium Research Institute (MBARI), a non-profit organization funded principally by the Packard Foundation
 - Facilities
 - Grant and administrative support
- Governing Council (GC)
 - 15 member Council with broad expertise spanning the region
 - Considering adding an Advisory Board
- Committees (still being formed)
 - Modeling; DMAC; Education; End User; HF Radar



RA Structure and Governance

MOA Signatories

* Governing Council Members*

Point Reyes National Seashore*

Moss Landing Marine Labs*

UC Davis*

CA Dept of F&G*

SWFSC*

Coastal Conservancy*

Humboldt State University*

San Francisco Estuary Institute*

CSU Monterey Bay

SF and Elkhorn Slough NERR

CCLEAN

SF Estuary Project

PRBO Conservation Science

SF Marine Exchange

CoastKeeper

SAIC

Ex-Officio: Ocean Science Applications; RAs and PaCOOS

Monterey Bay Aquarium Research Inst*

UC Santa Cruz*

CODAR Ocean Sensors*

Naval Postgraduate School*

Cal POLY*

San Francisco State – RTC*

Natural Resources Defense Council*

Pacific Coast Fishermans Federation*

Stanford/Hopkins Marine Station

Fleet Numerical

Sonoma County Water Agency


Humboldt Bay Harbor, Rec and Cons

Commonweal


Humboldt Bay Stewards


Western Associates of Marine Laboratories

Elected from MOA signatories for 3-year term

 = agency

 = research/academic agency

 = non-profit

 = industry

RA Structure and Governance

- Council Meetings (past) 2005 - 2007
 - Quarterly
 - Governance structure; Priorities; Business Plan
- Council Meetings (future) 2008
 - Twice a year (additional conference calls)
 - Theme-based meetings to focus on a particular issue
 - San Francisco Bay observatory
 - Harmful Algal Blooms
 - IEA / EBM / MPA
 - Ocean energy
 - Importance, timeliness



Stakeholder Engagement

Marine Operations

- SF Bar Pilots; HSC; PORTS
- OSPR, OR&R
- USCG
- Harbor Masters (Monterey; Moss Landing; Santa Cruz; Humboldt)
- Monterey Fire Department

Marine Populations

- NOAA NMFS
- CA Dept. of Fish and Game
- BeachCOMBERS
- UC Davis Veterinary Dept
- Sonoma County Water Agency

Education

- Consortium for Ocean Science Education Excellence (COSEE)
- MBARI EARTH; Sea Lab
- NOAA Sanctuaries

Water Quality and Health

- Surfrider Foundation
- County Environmental Health Departments
- SF Public Utilities Commission
- State Water Boards
- Sanctuaries
- UC and CSU Systems

Marine Protected Areas

- MPA Monitoring Enterprise
- NOAA MPA Center
- NOAA Sanctuaries
- PISCO
- Ocean Science Trust
- CA Dept. of Fish and Game

Stakeholder Engagement

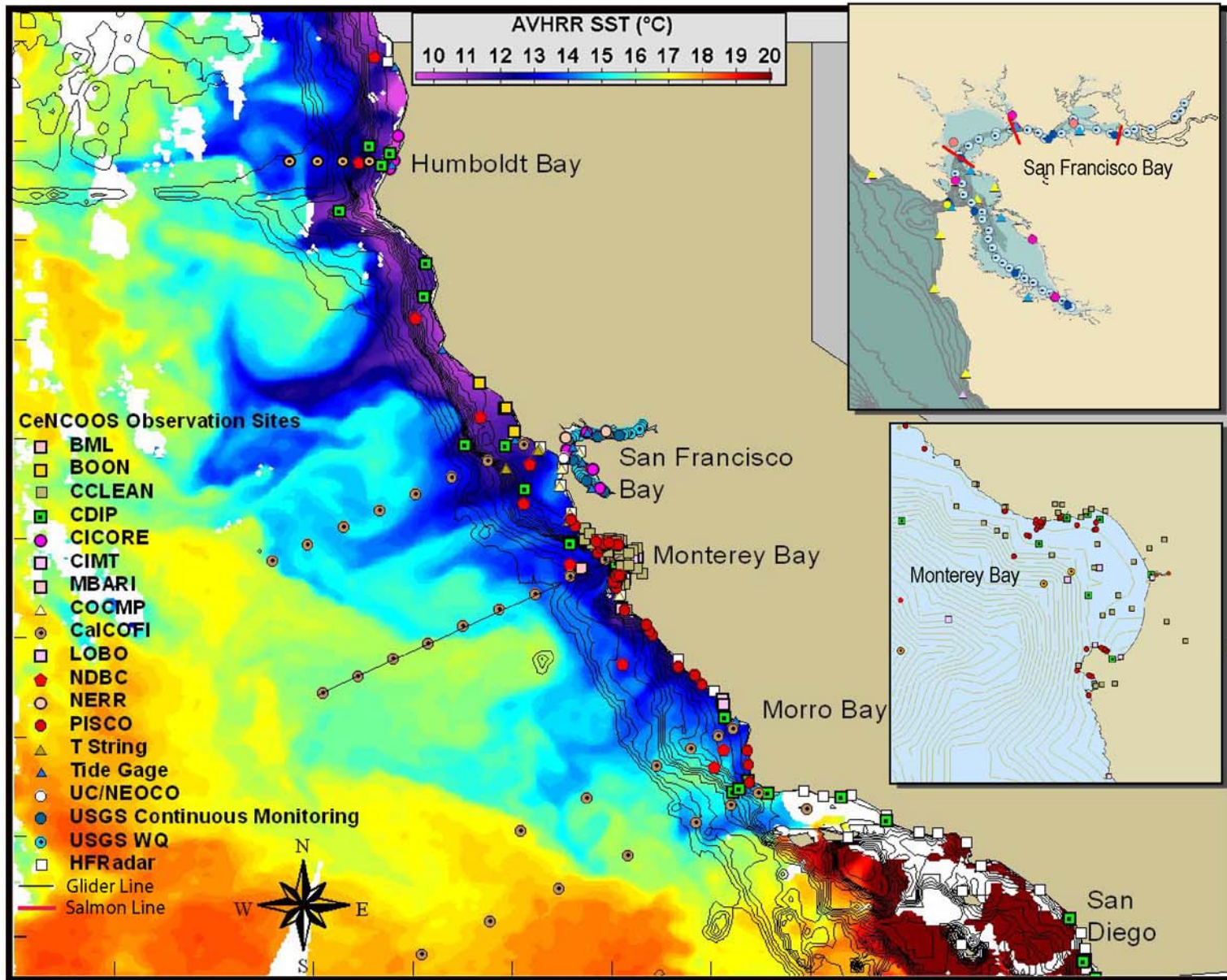
- Council Meetings (open to public)
- Reports/Surveys (needs; priorities; data access)
- Workshops and Planning Committees
 - Making Use of Ocean Observing: MPAs and WQ
 - CCEBM Workshop (co-authored funded proposal)
 - Pacific RAs and IEA
 - Ocean Climate Summit; Ocean Science Summit
 - PG&E Ocean Energy Workshop in Ft. Bragg
- Public Symposiums
 - Monterey Bay: Ocean Observing; Climate Change
 - Humboldt Bay
- Continuous participation
 - MBCORC and Sanctuary RAP
 - Northern California State Water Quality Meetings – quarterly
 - Ocean Protection Council – quarterly
 - Northern California Beach Monitoring Group
 - Harbor Safety Committees (Monterey; SF; Humboldt)
 - Surfrider Meetings
- One-on-one; product development
 - SF Customized Web Site; SF Bar Pilots, Port of Oakland, etc.
- Response Participation
 - Oil spill – Safe Seas 06 and Cosco Busan
 - HABs

Stakeholder Engagement

- Key issues of importance to regional stakeholders, and how the RA addresses them?
 - Climate Change (temperature, sea level, acidity)
 - Harmful algal blooms
 - IEA leading to EBM for fisheries; salmon closure
 - Ocean Energy
 - Marine protected area management
 - Water quality and pollution issues
 - Search and Rescue
 - Marine Transportation
- Quantifiable, tangible expressions of support from stakeholders
 - Twelve letters of support for the proposal
 - Meeting attendance
 - MBARI Annual Report

Current Activities and Funding

- A summary of key activities in the region that are related to or support IOOS, including those not funded by NOAA IOOS
 - Climate Change
 - Marine Protected Areas (MPAs)
 - Harmful Algal Blooms
 - Pollution and Water Quality
 - Navigation and Marine Transportation, Harbors
- Interaction
 - NOAA (NMFS, SWFC, ERD, Sanctuaries)
 - ONR AOSN, ASAP (tools, networking, DMAC)
 - USGS (Water quality, bottom mapping)
 - PaCOOS, SCCOOS, NANOOS
 - CA OPC, Coastal Conservancy, Ocean Science Trust
 - MBARI in-house efforts (technology development)
- How can NOAA IOOS best support you in engaging other Federal agencies?
 - Sustained, significant funding that others can leverage off of
 - Convince people we are here to stay
 - Work on interagency relationship at higher level, particularly with data management



300

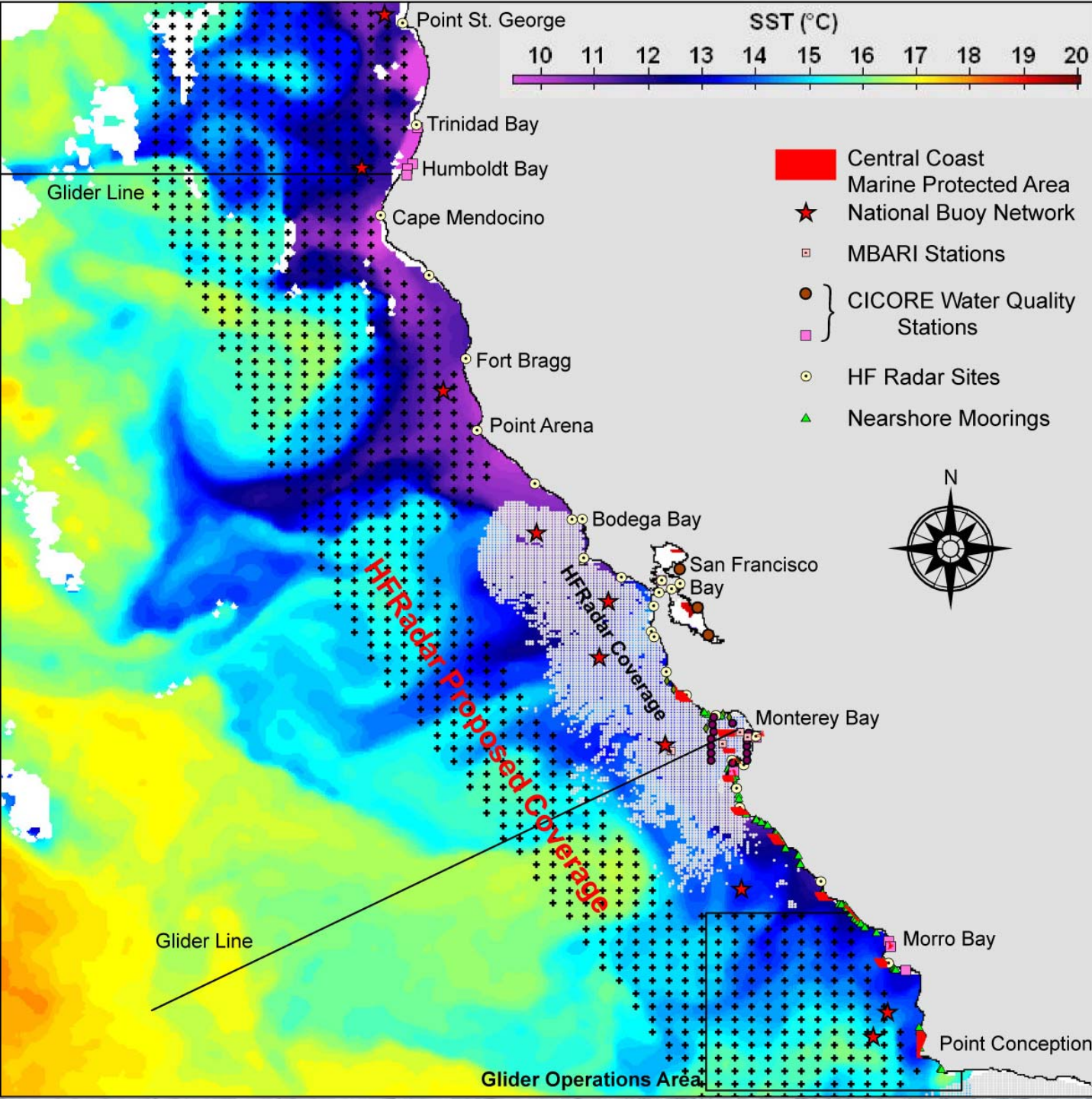
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300

600 Miles

Current Activities and Funding

- Sources of funding
 - Admin Grant (IOOS \$400k) Supports Coordinator, some of Director, some Programmer, travel, overhead, etc.
 - “CeNCOOS Bays” (IOOS \$500k 2007) Primarily Water Quality Focus
 - Implementation grant (IOOS \$1M 2008) Supports pan-regional backbone, DMAC
 - CA Coastal Ocean Current Monitoring Program (COCMP) (\$21M over five years)
 - SAIC Matching Funds
- RA plans/efforts to match IOOS dollars with funding from other sources
 - SCWA – Salmon restoration, offshore energy
 - CA MPA Monitoring Enterprise – MPA monitoring
 - DHS – Airborne rapid response to accidents, natural disasters, and threats to homeland security
 - NOAA CAMEO (with PaCOOS, Fisheries)
 - Center for Ocean Solutions – Selected projects coming up
 - Packard and Moore foundations (EBM)
- How can the NOAA Program Office help?
 - See previous slide!



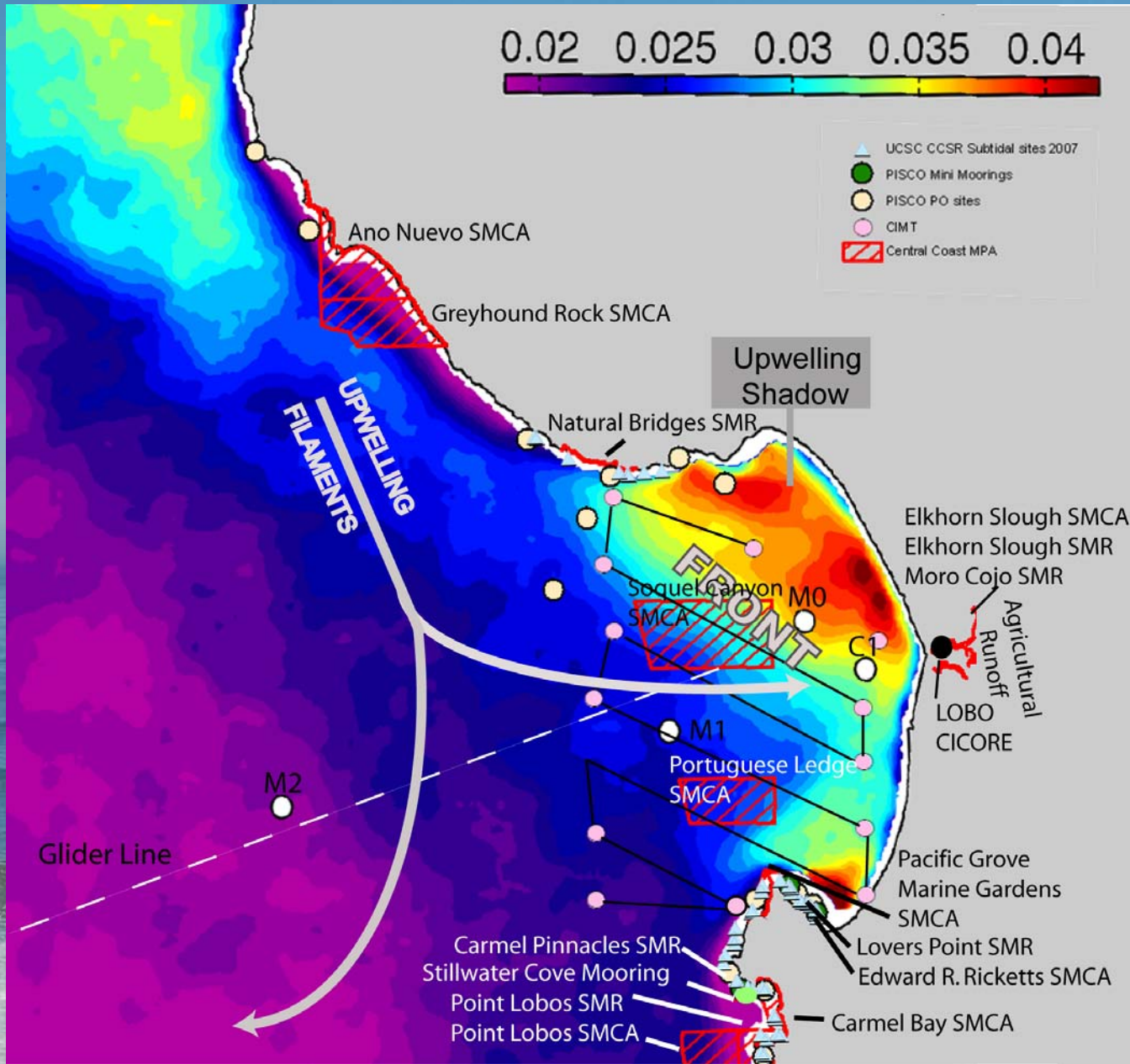
Pan-Regional Backbone (PRB)



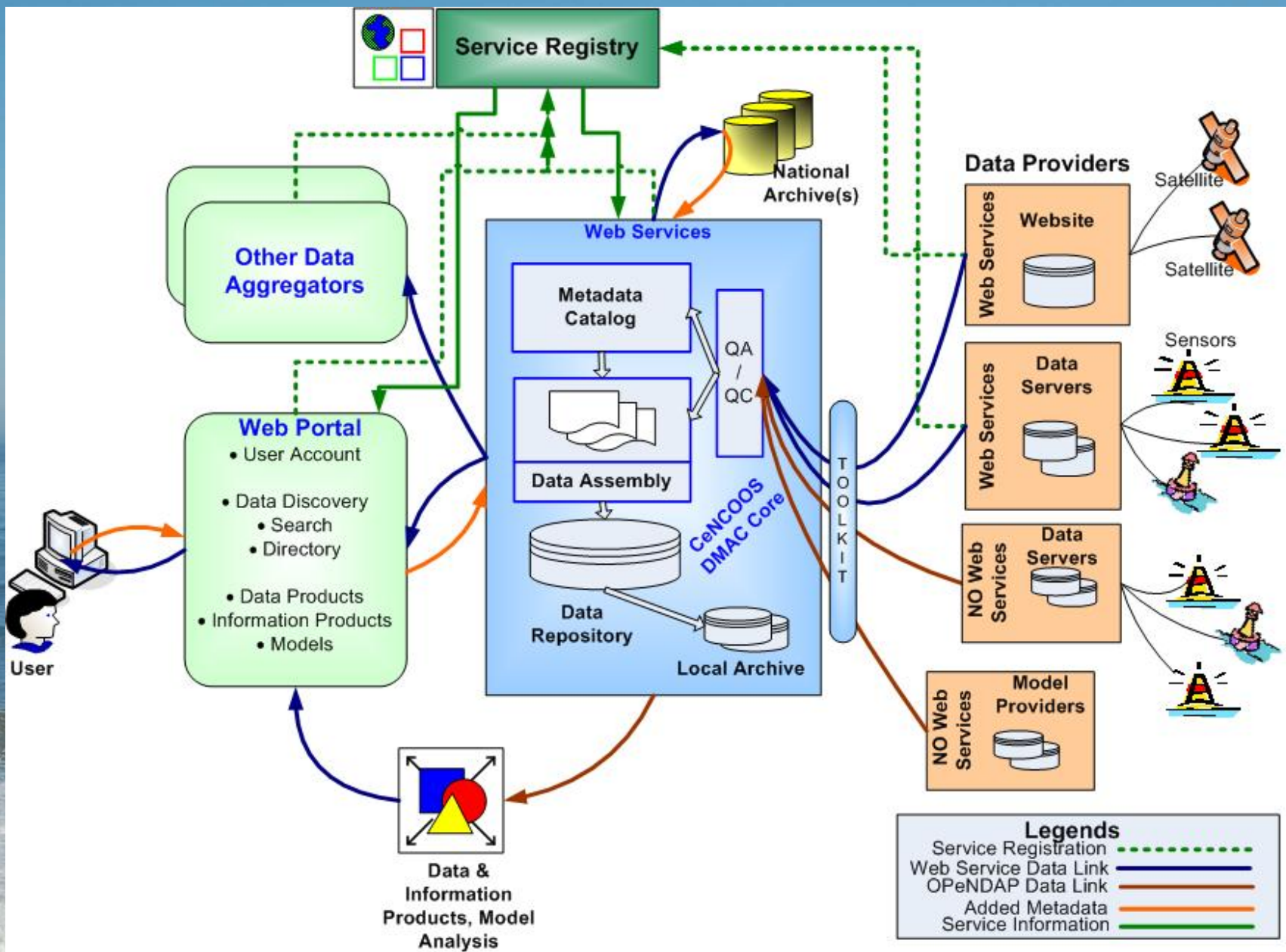
M B A R I



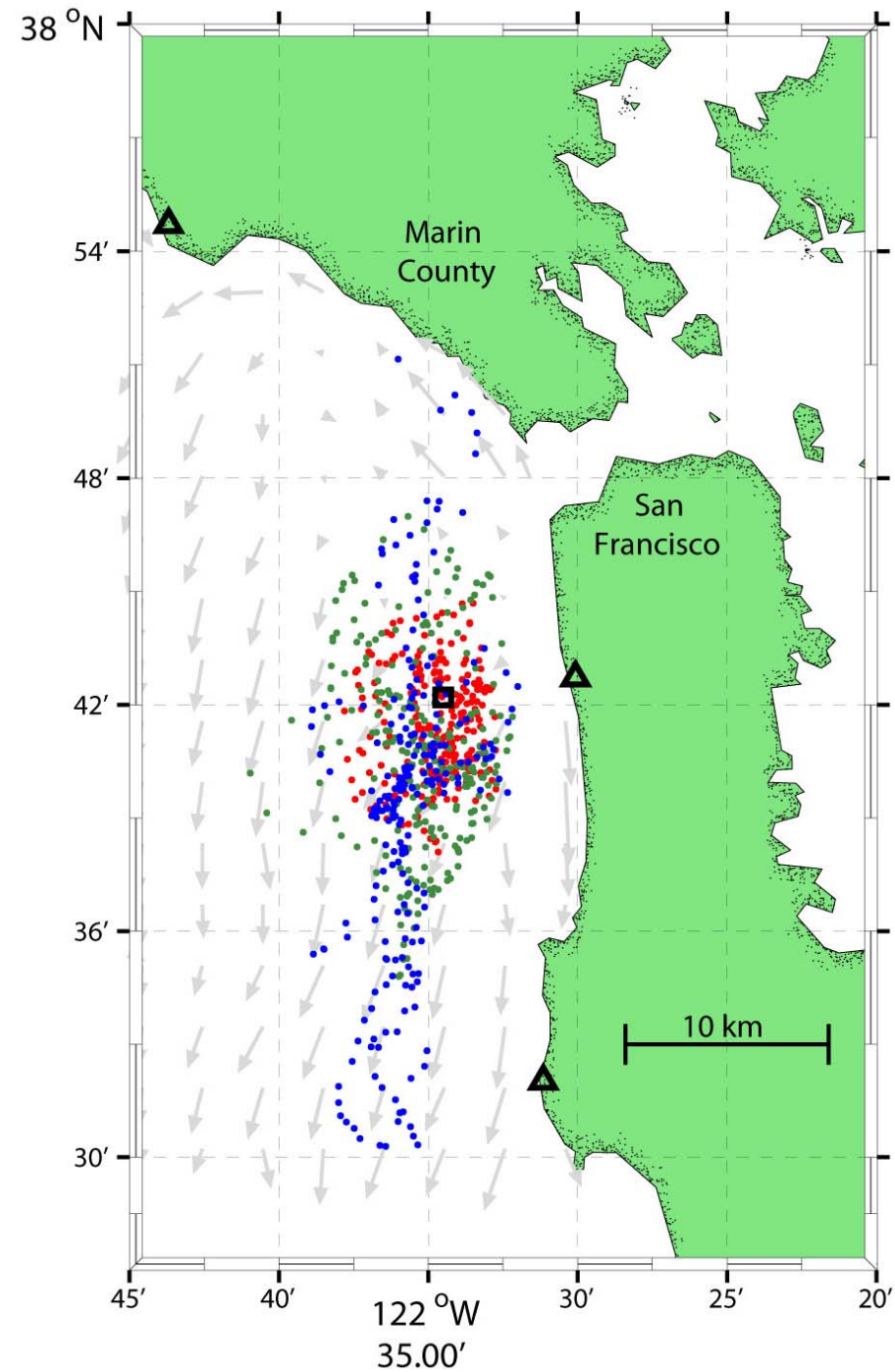
Monterey Bay Bay ROSI



Data Management And Communications (DMAC)



Ocean Beach Outfall Support





RA Coordination Agreements

2005-present

- Governing Council
- Increased Signatories 12 - 40
- Created website
- Product Development Team
- Interactive Inventory Map
- Data Products
- DMAC Progress; Leads
- Outreach Materials: Updates, Brochure
- User Meetings
- Participation with NFRA/RA/California
- Priorities; Working Group; Committees
- Implementation Plan
- Coordination
- Pilot Projects and Response
- Certification?
- Workshops; Conferences;
- Helping implement CA Ocean Action St

2005-present

Progress Reports

- One more to go!

New Information

- Staff
- Committees
- Implementation Grants crucial

How are we doing?

- Mostly on track!



RA Coordination Future

- Develop and implement a strategic plan and Concept of Operations
- Increased emphasis on products
 - Management
 - Education
 - Emergency response
 - Enabled by high emphasis on DMAC development
- Collaboration with west coast RAs and initiatives
- Amend MOA and collect more signatures
- Outreach: permanent exhibits; media; monthly updates
- Continue to engage stakeholders
- Implement Working Group Pilot Projects
- Create focused, goal-oriented sub-committees as needs arise
- Maintain website and interactive inventory



RA Future Development: The Four Highest Priorities

1. Complete system build-out and implementation according to the conceptual design (\$15M)
2. Implement operational forecasts of ocean conditions with high accuracy and reliability (\$5M)
3. Become indispensable to the end-user community (Products so good people become dependent on them, like the daily weather forecast) (\$10M)
4. Convince the citizens that ocean health is essential to the welfare of the nation (including the corn belt) (\$2.5M)



RA Metrics

- RA views on function and performance metrics
 - Produce, serve, 5+2 core variables
 - National compliance, interoperability
 - Customer satisfaction

RA Views on Regional and National IOOS

- RA needs with regard to the integration of regional and national planning efforts
 - DMAC standards is really the big issue
- RA expectations for development of the “national backbone” of observations
 - Continue to provide detail on DMAC interoperability
 - Adopt web services approach
 - Upgrade the NOAA NDBC buoys with new variables and sensors

Cross-regional Coordination

- Discuss existing and potential coordination with other IOOS RAs
 - California Current Large Marine Ecosystem (LME) management
 - Integrated, standard-look Harbor Information Pages (HIP)
 - Harmful Algal Blooms – New report coming out
 - Border-to-border ocean surface currents
 - West Coast Governor's Agreement
 - NOAA Sea Grant User Needs Surveys



Best Practices and Lessons Learned

- Problems:
 - Establish the balance between core funding to sustain all 11 RAs vs. merit-based funding for growth and innovation
 - Lack of Interagency participation in IOOS
 - Difficult transition from earmarks to main line funding, loss of revenue
 - Long wait for national DMAC guidance
 - Determining what products users really want
 - Expressing the value of ocean observing to voters.
- Good Ideas:
 - OceanObs registry, the model for the new national registry, popular with managers and the public
 - One-page success stories
 - Identity: It's good to have your own space!



Parting Thoughts

- What support or information do you need from NOAA that you are not currently receiving?
 - Break down political/legal barriers to other agencies (some within NOAA) that keep them from officially using our products! Specific examples include Oil Spill Response and Search and Rescue
- Is there input you would like to give to us, but don't have a venue?
 - Most of the cost is in the people. Everybody wants to buy equipment, but nobody wants to fund the continued operation and maintenance. This funding is essential to the success of IOOS.
 - In particular, sustained funding for HF Radar O&M is a pressing issue – Funding gap starting Feb. 2009



Parting Thoughts

- How can NOAA IOOS best receive regular updates or information from the RAs?
 - Dynamic, up-to-date web page
 - Monthly(?) newsletters
 - Conference Calls
 - Annual reports
- Other parting thoughts?
 - Kudos to the National IOOS Office Staff!