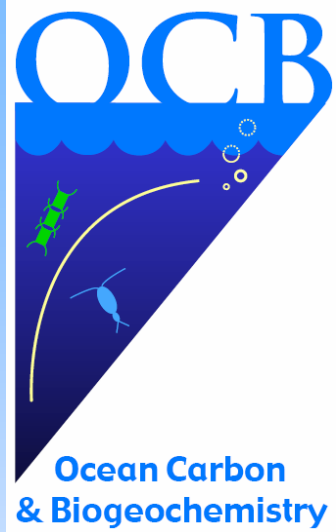
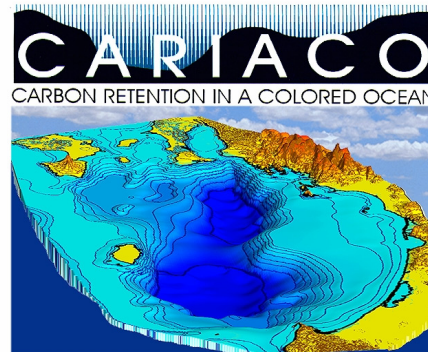
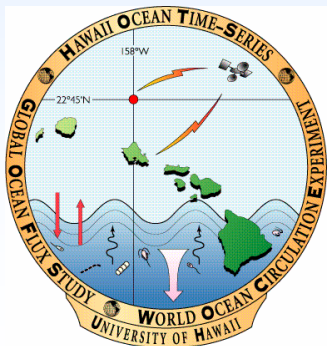


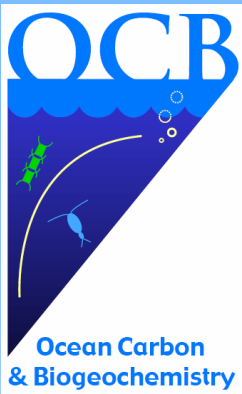
OCB: Ocean Carbon and Biogeochemistry Program



Promote, plan, and coordinate collaborative, multidisciplinary research opportunities within the U.S. research community and with international partners

Time Series Stations





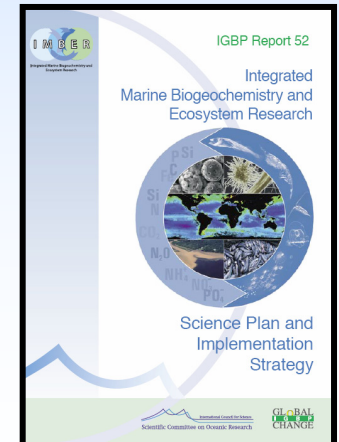
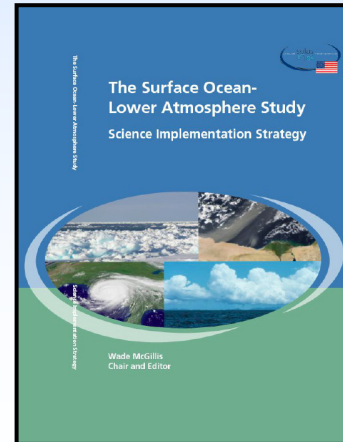
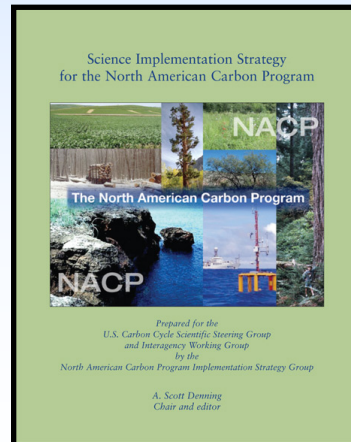
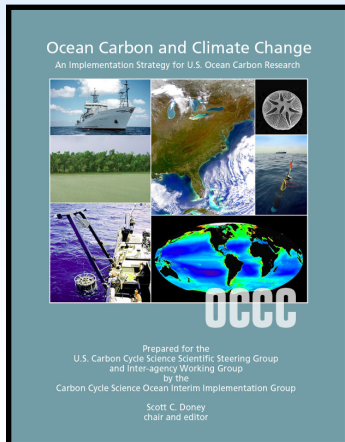
Time Series stations have been highlighted as critical components of all the national and international ocean carbon research programs

OCBC
Ocean Carbon
& Climate Change

NACP
North American
Carbon Program

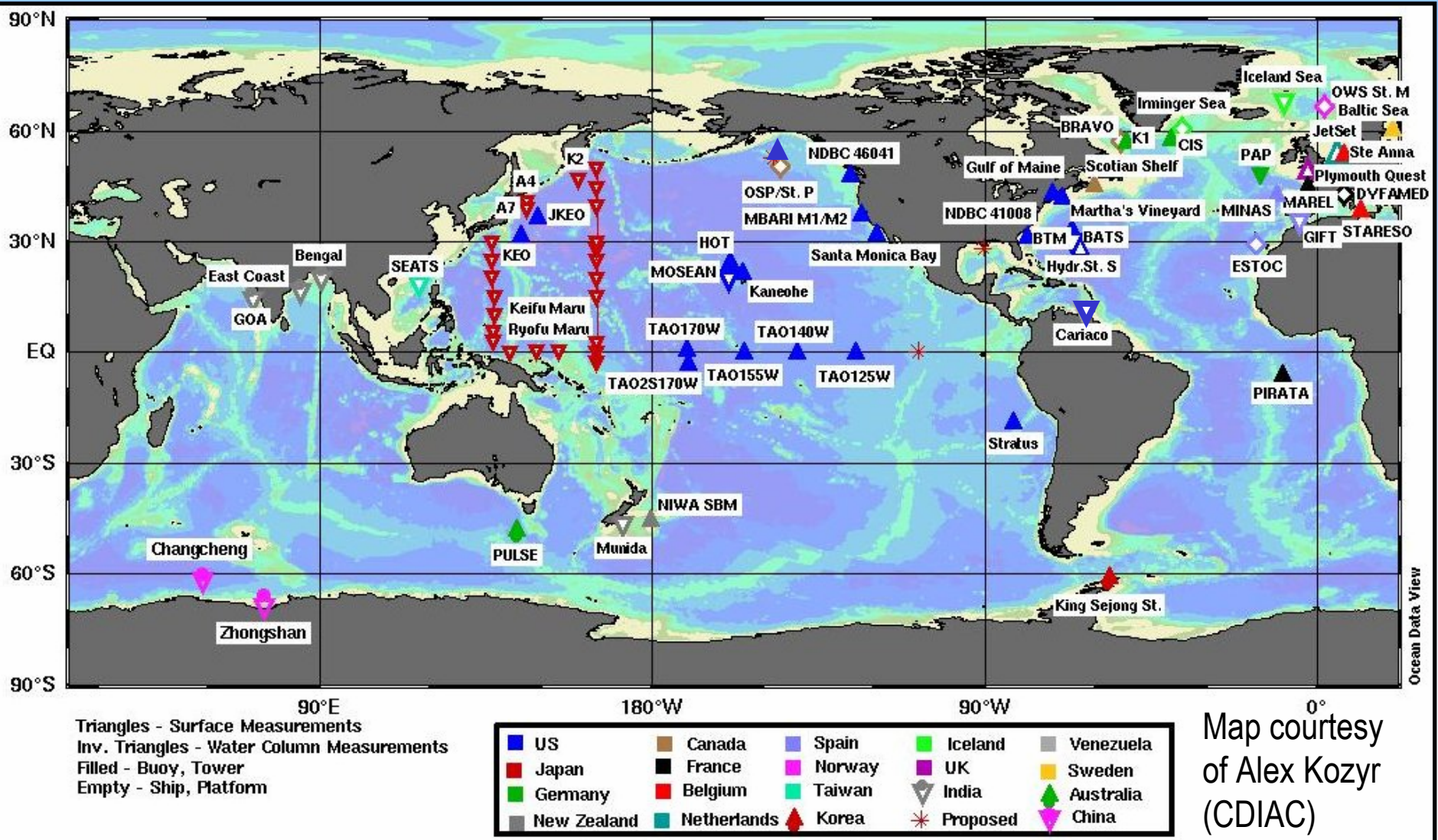
SOLAS
Surface-Ocean
Lower Atmosphere
Study

IMBER
Integrated Marine
Biogeochemistry
and Ecology



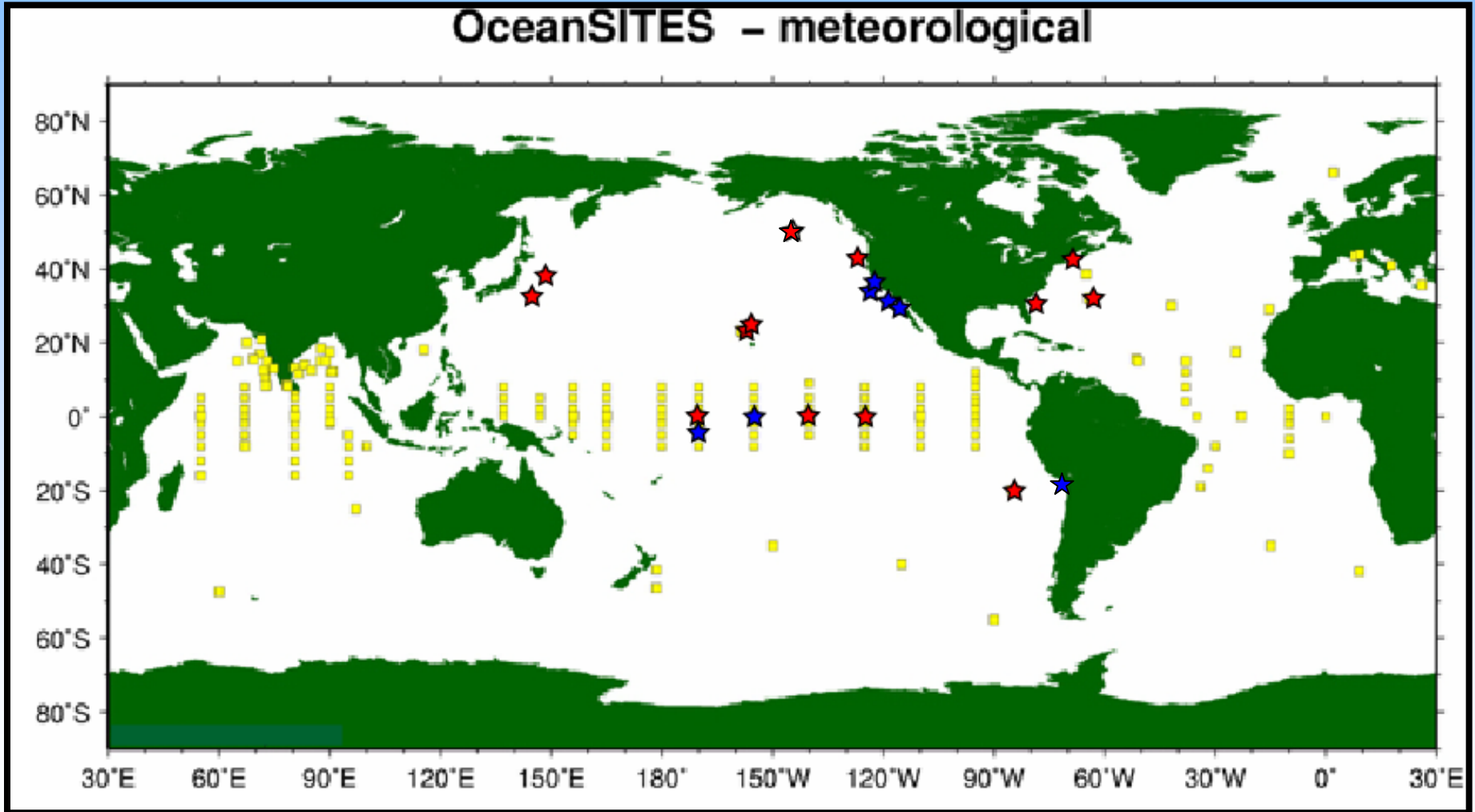
International Ocean Carbon Coordination Project

Promoting the development of a global network of ocean carbon observations for research through: coordination and communication services; international agreements on standards and methods; advocacy within the global observing systems

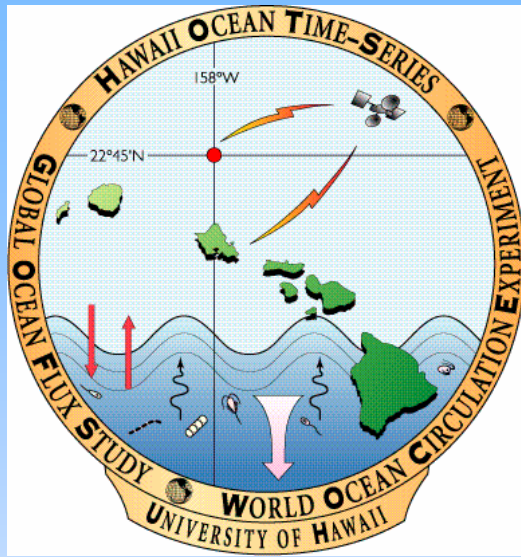




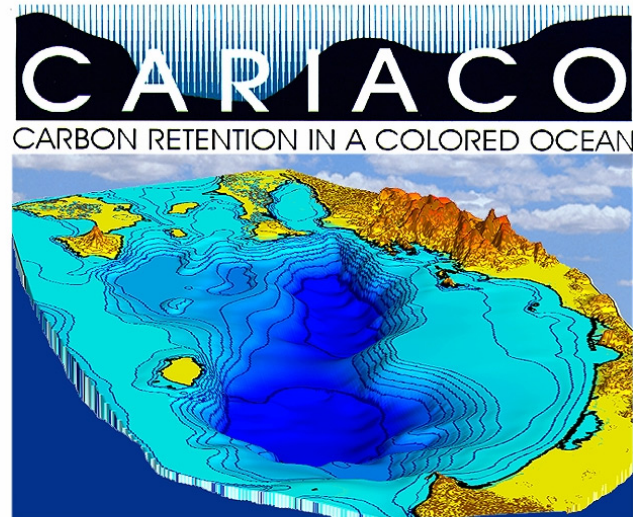
As part of NOAA's Global Climate Observing System we hope to outfit approximately 60 OceanSITES flux reference stations and 25 NDBC US coastal buoys with CO_2 sensors



Red stars show all current deployments of PMEL MAPCO₂
Blue stars show current deployments of MBARI CO₂ systems



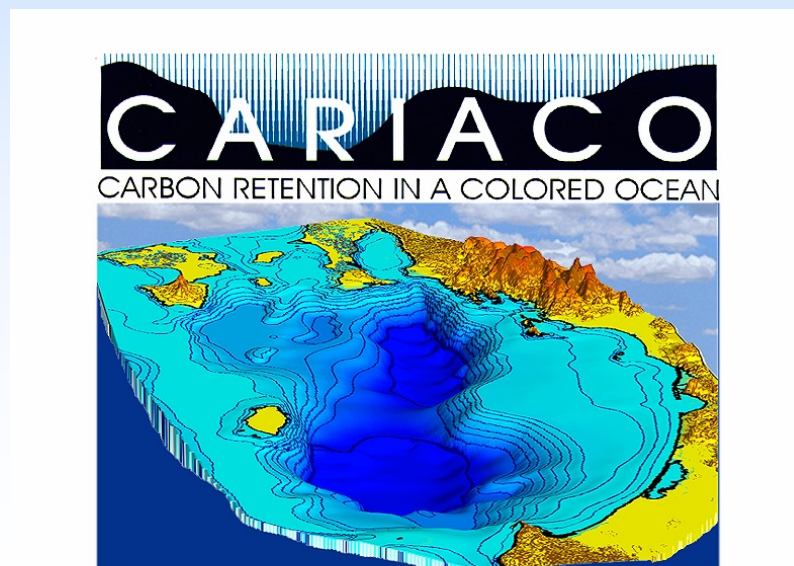
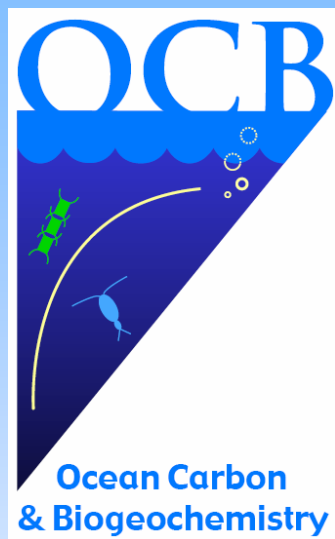
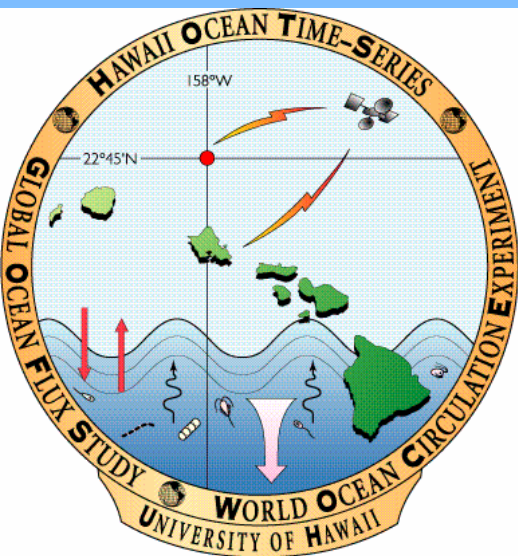
In terms of large, multidisciplinary, shipboard, time series sites, within the US we have three:



Looking at the time series map one might say that we are doing a good job with time series, at least with in the Northern Hemisphere...

...but the reality is that time series stations are struggling to keep themselves funded.

If these are as important to the community as suggested from the workshop reports and planning documents then we need to properly invest in these time series. Think of what the Mauna Loa atmospheric CO₂ record has done for climate change science...do we want to be able to answer the question, “How has biogeochemical cycling changed in the ocean?”



Ocean Time-Series Advisory Committee (OTSAC)

Members:

Deborah Bronk, College of William and Mary/VIMS, Chair

Chris Sabine, PMEL, OCB representative

Craig Carlson, UC Santa Barbara

Steve Emerson, U. Washington

Ken Johnson, MBARI

Dennis McGillicuddy, WHOI ??

Charge:

To assist both the time-series station groups and the broader scientific community on issues relating to the time-series stations. The committee answers to the Ocean Carbon and Biogeochemistry (OCB) Scientific Steering Committee who reports to NSF.

Initial Questions:

- Quality of measurements
- Intercalibration between sites
- Optimal sampling frequency
- Evolving the measurement suite vs. maintaining continuity
- Shipboard versus moorings
- Revision of standard methods manual
- To what degree should there be parity between measurements at the three sites?
- Long-term data storage and accessibility

Bigger Questions:

- What is the long-term vision for the time-series program?
- How will the time-series sites contribute to the larger questions facing the oceanographic community such as ocean acidification?
- How do the time-series currently interact with the Ocean Observatories Initiative (OOI) or Ocean Research Interactive Observatory Network (ORION)?

OCB Implementation

- Annual Summer OCB Science Workshop
- Targeted scoping meetings on implementing critical science meetings
 - Ocean Acidification (Oct., 2007)
 - TBD (Spring, 2008)
- Core NSF funds as well as NASA and NOAA announcements of opportunity

Should we have a time series theme at next year's summer workshop?

Should we have a time series focused workshop next spring?