OCB: Ocean Carbon and Biogeochemistry Program

**OCB Mission:**
to establish the evolving role of the ocean in the global carbon cycle, in the face of environmental change, through studies of marine biogeochemical cycles and associated ecosystems.
Promote, plan, and coordinate collaborative, multidisciplinary research opportunities within the U.S. research community and with international partners

OCCC
Ocean Carbon & Climate Change

NACP
North American Carbon Program

SOLAS
Surface-Ocean Lower Atmosphere Study

IMBER
Integrated Marine Biogeochemistry and Ecology
OCB Overarching Science Themes

Improve understanding and prediction of:
1) oceanic uptake and release of atmospheric CO$_2$ and other greenhouse gases;
2) climate-sensitivities of biogeochemical cycles and interactions with ecosystem structure
OCB Currently Identified Priorities

• Ocean acidification
• Terrestrial/coastal carbon fluxes and exchanges
• Climate sensitivities of and change in ecosystem structure and associated impacts on biogeochemical cycles
• Mesopelagic ecological and biogeochemical interactions
• Benthic-pelagic feedbacks on biogeochemical cycles
• Ocean carbon uptake and storage
OCB Implementation

- Annual Summer OCB Science Workshop
- Targeted scoping meetings on implementing critical science meetings
  - Ocean Acidification (Oct. 9-11, 2007; La Jolla CA)
  - TBD (Spring, 2008)
- Core NSF funds as well as NASA and NOAA announcements of opportunity
OCB Program Structure

Observing System
Repeat Hydrography/CO$_2$
HOT, BATS, CARIACO
U.S. efforts in CarboOcean
ORION, …

New & Future Projects
U.S. single-investigator &
medium-size research projects funded by NASA,
NOAA, and NSF

OCB SSC
Scientific Steering Committee

OCB Office
OCB Project Office

Data Management
Biological and Chemical
Ocean Data Management
OCB Program Structure

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Federal Agency Involvement (to date)
NSF  Don Rice, Fred Lipschultz, Phil Taylor
NASA  Paula Bontempi
NOAA  Kathy Tedesco, Mete Uz
CCSP Program Office  Roger Hanson
OCB Program Structure

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Biological and Chemical Ocean Data Management

OCB and OCCC
Scott Doney (WHOI)
Bob Anderson (LDEO)
Mary-Elena Carr (JPL)
Richard Feely (NOAA/PMEL)
Burke Hales (OSU)
Dave Karl (U Hawaii)
Galen McKinley (U Wisconsin)
Chris Sabine (NOAA/PMEL)

OCB
Ginger Armbrust (UW)
Kathy Barbeau (Scripps)
Debbie Bronk (VIMS)
Joanie Kleypas (NCAR)
Steve Lohrenz (U. S Miss.)
Wade McGillis (LDEO)
Mark Ohman (Scripps)
Tammi Richardson (U-SC)
OCB Program Structure

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Scientific Steering Committee

OCB Office
OCB Project Office

Data Management
Biological and Chemical Ocean Data Management

Director: Scott Doney
Program Coordinator: Heather Benway
Admin. Assistant: Mary Zawoysky
Website: www.us-ocb.org
OCB Program Structure

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Biological & Chemical Ocean Data Management Office:  
PI's: Peter Wiebe & David Glover  
Website: www.bco-dmo.org
The BCO-DMO was created to serve PIs funded by the NSF Biological and Chemical Oceanography Sections. It is a location from which marine biogeochemical and ecological data and information developed in the course of scientific research can easily be disseminated, protected, and stored on short and intermediate time-frames.

The Office is located at the Woods Hole Oceanographic Institution

The Web-site is:  www.bco-dmo.org

The Office is managed by:
Robert Groman (rgroman@whoi.edu)
Cyndy Chandler (cchandler@whoi.edu)
David Glover (dglover@whoi.edu)
Peter Wiebe (pwiebe@whoi.edu)
The BCO-DMO data system will be designed to be interoperable with other data systems to facilitate discovery of and access to ocean science data and supporting documentation.
Moving OCB Forward

OCB is already underway!

- Continued funding for CO$_2$ survey, HOT, BATS, etc.
- OCB Project Office and BCO-Data Management Office are up and running
- Scoping workshops (Fall 2007 and Spring 2008)
- PIs encouraged to submit OCB-related proposals to NSF-core and special programs, NASA & NOAA opportunities
  - NSF Chemical Oceanography committing $3M/year beginning in FY08 (Feb. proposal submission target)
  - NASA pledge of additional FY2008 funds for OCB
  - Ocean acidification encouraged NSF-OCE theme
Coordinate NACP and OCCC to give a continuum from dry land to the open ocean

- NACP has primary responsibility for land-ocean exchanges
- Both programs have responsibility for shelf processes
- OCCC has primary responsibility for shelf-open ocean exchanges