



The Ocean Carbon & Biogeochemistry (OCB) Program

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SCIENTIFIC FOCUS

OCB Mission

To study the evolving role of the ocean in the global carbon cycle, in the face of environmental variability and change through studies of marine biogeochemical cycles and associated ecosystems.

Overarching Scientific Themes

1. Oceanic uptake and release of atmospheric CO₂ and other greenhouse gases
2. Environmental sensitivities of biogeochemical cycles, marine ecosystems, and interactions between the two

Current 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
- Expanding low-oxygen conditions in the coastal and open oceans

OCB ACTIVITIES

UPCOMING

- **March 22-24, 2011:** OCB Ocean Acidification PI Meeting (by invitation) (Woods Hole, MA)
- **May 23-25, 2011:** OCB Scoping Workshop A *Biogeochemical Flux program aligned with the Ocean Observatories Initiative (OOI)* (Woods Hole, MA)
- **July 18-21, 2011:** 2011 OCB Summer Workshop (Woods Hole, MA)

RECENT

- **December 11-12, 2010:** Coastal Synthesis Workshop (San Francisco, CA)
- **November 2010 (Los Angeles, CA):** OCB Scoping Workshop *The Molecular Biology of Biogeochemistry: Using molecular methods to link ocean chemistry with biological activity*
- **September 2010 (Honolulu, HI):** OCB Scoping Workshop *Sea change: Charting the course for ecological and biogeochemical ocean time-series research*

WHAT IS OCB?

OCB is a scientific coordinating body that facilitates collaborative, interdisciplinary research opportunities and initiatives within the U.S. and with international partners. The current OCB model is based on a community-driven set of research priorities and coordinated, bottom-up implementation measures.

OCB PROGRAM STRUCTURE

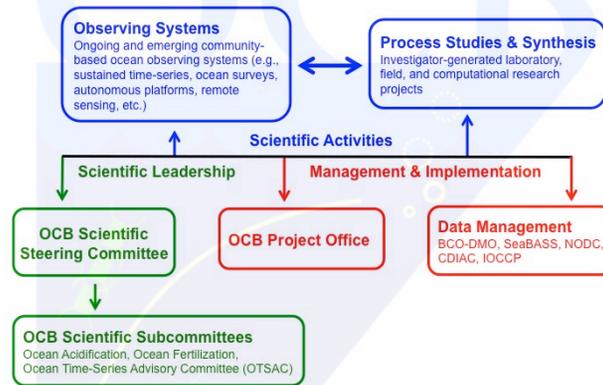


Figure 1. Scientific activities advanced by OCB include individual and multi-investigator laboratory, field, and computational research projects. OCB also coordinates community planning efforts in support of the critical ocean observations needed to sustain OCB research activities. The OCB Scientific Steering Committee (SSC) provides scientific leadership by defining and prioritizing OCB research foci and overseeing the implementation of OCB activities. As necessary, to further coordinate on specific research topics, the OCB SSC also forms subcommittees consisting of SSC members and scientists from the broader research community. The OCB Project Office plans and implements activities initiated by the OCB SSC and its subcommittees. OCB also works with data management and archival entities to facilitate access to high-quality data and promote proper metadata protocols.

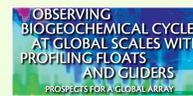
GET INVOLVED

- Join **OCB Email List** (news, newsletter, job announcements, etc.)
- Participate in **OCB workshops and activities**
- **Submit proposals** to OCB-relevant solicitations (NSF, NASA, NOAA, etc.)
- Submit **OCB scoping workshop proposals**
- Serve on or nominate someone for **SSC or subcommittees**
- Add your funded projects to the **OCB projects list**
- Add your **peer-reviewed publications** to OCB website

HOW OCB SUPPORTS SCIENCE

COMMUNICATION

- OCB website: <http://www.us-ocb.org>
- Topical websites: Ocean acidification, ocean fertilization
- OCB newsletter
- Community email list



A U.S. Southern Ocean Carbon, Ecosystem and Biogeochemistry Science Plan

A report of the Southern Ocean Scoping Workshop sponsored by the Ocean Carbon and Biogeochemistry Program and the NSF Office of Polar Programs.



Ocean Carbon and Biogeochemistry Scoping Workshop on Terrestrial and Coastal Carbon Fluxes in the Gulf of Mexico St. Petersburg, FL May 6-8, 2008

WORKSHOPS & ACTIVITIES

- **OCB summer workshops (live webcasting)**
- Scoping workshops
- Ocean acidification course
- Coastal carbon synthesis

SCIENTIFIC PLANNING & COORDINATION

- Interface with U.S. and international marine biogeochemistry and ecosystem research programs via joint activities and travel support
- Convene researchers across disciplines to facilitate U.S. and international scientific planning efforts



U.S. CARBON CYCLE SCIENCE PROGRAM

CARBON CYCLE SCIENCE PLANNING FOR THE NEXT DECADE

Response to EPA Notice of Call for Public Comment on 303(d) Program and Ocean Acidification from the Ocean Carbon and Biogeochemistry (OCB) Program May 21, 2010

Ocean Acidification - Recommended Strategy for a U.S. National Research Program - Ocean Carbon and Biogeochemistry Program Subcommittee on Ocean Acidification

EDUCATION AND OUTREACH



- **Public outreach** (e.g., ocean acidification FAQs)
- **Classroom resources** (e.g., science kits)
- **Outreach articles**
- **Teacher and student training** (e.g., USA Science & Engineering Festival)
- **Films and media** (e.g., NOAA Science on a Sphere, Ocean Today kiosk)