

Ocean Carbon & Biogeochemistry

*Studying marine biogeochemical cycles
and associated ecosystems
in the face of environmental change*

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WELCOME TO OCB

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

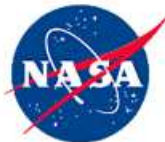
OCB Overarching Scientific Themes

Improve understanding and prediction of:

- 1) oceanic uptake and release of atmospheric CO₂ 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



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FEATURED SCIENCE

March 23, 2009: LOHAFEX iron fertilization experiment in Southern Ocean yields [new insights on carbon sequestration potential](#)

March 18, 2009: [PBS Journey to Planet Earth](#) documentary series to air [State of the Planet's Oceans](#), which will feature an [interview with Scott Doney](#).

March 13, 2009: Study in [Science](#) links increased wind-driven upwelling in Southern Ocean with decadal CO₂ rise.

FLOAT/GLIDER WORKSHOP GOALS:

- Assess the potential to create a long-term observing system based on floats and gliders, and integrated with satellites and data-assimilating models, that could monitor biogeochemical processes on a global scale and through the ocean interior.
- Review existing technologies, their strengths, their weaknesses, and identify required developments for a long-term, global biogeochemical observing system.
- Initiate planning for a near-term experiment focused on major OCB uncertainties using floats/gliders deployed for multi-year period, but also integrated with ship board operations that verify system operation.
- Assess unmet needs for sensors and sensor performance, platforms, and other issues that may arise.

- Tuesday Morning, Platform and Sensor Hardware
- Tuesday Afternoon, Science Applications
 - Ends with an overview of the recent North Atlantic Bloom Experiment
- Wednesday Morning, Introductions to potential mid-term experiments
- Wednesday Afternoon, Breakout groups focused on mid-term, multi-year experiments
- Thursday Morning, Breakouts report, discussion of unmet needs and steps required to reach a long-term biogeochemical observing system.

The Committee:

- Emmanuel Boss
- Hervé Claustre
- Steve Emerson
- Niki Gruber
- Dennis Hansell
- Kenneth Johnson
- Arne Kortzinger
- Mary Jane Perry
- Steve Riser

We'd like to put presentations on Meeting web site. Please let us know if that is not acceptable, or if you would like to redact any parts of the presentation.

Thank you and enjoy the workshop!!