

THE INTERNATIONAL OCEAN CARBON COORDINATION PROJECT (IOCCP)

A joint project of SCOR and IOC and an affiliate program of the Global Carbon Project.

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www.ioccp.org

The Ocean in High CO₂ World Symposium in 2012

The Scientific Committee on Oceanic Research, Intergovernmental Oceanographic Commission of UNESCO, and International Geosphere-Biosphere Programme are planning a third symposium on The Ocean in a High-CO₂ World, to take place in 2012. The three-day symposium will focus on ocean acidification and its impacts on marine organisms, ecosystems and biogeochemical cycles. It will also cover socio-economic consequences of ocean acidification, including policy and management implications.

The co-sponsors have appointed Prof. Dr. Ulf Riebesell (Germany) to serve as the chair of the planning committee and are in the process of developing the membership of the committee.

Since the first two symposia were held in France and Monaco, the third symposium will likely be held outside Europe. The co-sponsors are seeking bids to host the symposium. Bids should be submitted by **30 April 2010** and should include the following information:

- Scientists and organizations who will serve as local hosts, including the expertise of local planning committee members
- Suitability of the location to attract the world's leading scientists, provide outreach opportunities, and link with policymakers
- Description of meeting venue and capacity of meeting space for a 3-day meeting, including one plenary room and 3-5 breakout rooms. Expected participation is between 250 and 500 people.

- Availability of accommodations at a range of costs, including the number of rooms, distance from the meeting location, and costs of sleeping rooms for high and low season
- Distance of meeting and lodging facilities from major airport(s) and cost of transportation between airport and meeting and lodging facilities
- Expected cost of meals per day
- Expected level of local support and associated funding including ability to provide meeting space, audiovisual support, and staff support at no cost to the international organisers
- Potential to raise other complementary support
- Dates when the facility is available in 2012
- Plans to minimize environmental effects of the symposium

Enquiries and bids should be emailed to Ed Urban (Ed.Urban@scor-int.org). Bids should be limited to about 10 pages. See <http://www.ocean-acidification.net/> for information about previous symposia.

The Surface Ocean CO₂ Atlas (SOCAT) Regional Workshop Updates

(1) Equatorial Pacific and Indian Ocean SOCAT Regional Workshop held in Tokyo, Japan

The Surface Ocean CO₂ Atlas (SOCAT) Project Equatorial Pacific (between 30N and 30S) and Indian Ocean regional workshop was held at the JAMSTEC office in Tokyo, Japan on 8-12 February 2010. Twenty-three participants from eight countries attended through support provided by JAMSTEC, NIES, and the IOC-SCOR IOCCP. The first half of the meeting consisted of the presentation and discussion of results of the JAMSTEC pCO₂ buoy project and the pCO₂ inter-comparison held in Hasaki, Japan in 2009. The final two days were devoted to the SOCAT regional workshop.

Presentations included updates on the status of the global SOCAT data base and quality control, equatorial Pacific and Indian Ocean pCO₂ data status for SOCAT, SOCAT data at CDIAC, Live-Access Server (LAS) tools and their application to SOCAT, and neural network analysis of the Atlantic and Pacific pCO₂ data sets.

In addition, the participants installed the LAS tools and software on their computers, downloaded the data files for their regions, set up the shared QC environment, and worked through several exercises to demonstrate the system. The groups worked through the data sets for their region (flagging, determining which 2nd level QC tests may be applied, testing those, etc.). The cookbook for completing the 2nd level QC can be downloaded from

http://www.socat.info/upload/Images_Header/SOCAT_QC_Cookbook_v2.doc

For more information: visit the IOCCP Web-site for more information on the SOCAT Project (<http://www.ioccp.org/SOCAT.html>) or to download the workshop report (<http://www.ioccp.org/Documents.html>) (in preparation).

(2) Southern Ocean SOCAT Regional Workshop to be held in Hobart, Australia

The SOCAT Southern Ocean Regional Workshop, sponsored by IOCCP, SOLAS/IMBER, and CSIRO will be held June 16-18, 2010 in Hobart, Australia. The goals of the meeting are to complete the data quality control for the Southern Ocean, and to develop synthesis plans for use of these data. At the Equatorial Pacific Ocean SOCAT meeting in Tokyo (see above), it was agreed to invite VVVS Sarma, chair of the Indian Ocean regional group. This will allow progress on the quality control of the Indian Ocean QC, as many of the members of the Indian Ocean panel are also part of the Southern Ocean panel.

The meeting objectives include:

- Finalizing the Quality Control of SOCAT CO₂ (<http://www.socat.info>) data base for the Southern Ocean sector (> 30°S).
- Implementing a plan to use the SOCAT data to investigate regional, and temporal (from seasonal to decadal) variability of the air-sea CO₂ fluxes in the Southern Ocean, and identify scientific papers and authors for these topics.
- Plan the level of involvement of the SOCAT-SO group in the Regional Carbon Cycle Assessment Project (<http://www.globalcarbonproject.org/activities/RECCAP.htm>)
- Preparation of a full report of the meeting for publication on line at IOCCP and reports for IMBER and SOLAS news.

GO-SHIP International Planning meeting held in Portland

GO-SHIP held an all-day international planning meeting on 21 February in Portland, Oregon in conjunction with the 2010 Ocean Sciences meeting. Approximately 50 participants from 12 countries discussed on-going and planned cruises and the way forward with the development of an international program. Participants reviewed reference sections and made modifications to the strategy based on feasibility of occupation and occupation frequency. Participants also decided that information about measurements planned for upcoming cruises is needed to assess whether cruises are making the full suite of measurements, and if not, to arrange collaborations if possible. Chief scientists are encouraged to advertise any free berths that may be available on their cruises for potential collaborations. It was also agreed that an oversight committee on data management was needed to develop strategies for global coordination of data assembly for hydrography variables. A report of the meeting and presentations are now available on the Web at www.go-ship.org or you may download the report directly (pdf 2Mb) at http://www.go-ship.org/Docs/GO-SHIP3_final.pdf

IOC-ICES Study Group on Nutrient Standards Meeting held in Paris

The IOC-ICES Study Group on Nutrient Standard (SGONS) meeting at Paris, France on 22-23 March 2010. The meeting focused on the ongoing activity of SGONS and future international collaborations to establish global comparability of the nutrient data from the world's ocean. Thirty-two participants from 11 countries attended the meeting organized by Michio Aoyama, SGONS chair, and David Hydes, co-Chair, and IOC.

The Terms of References of SGONS are to

- Develop and establish reference materials for nutrients in seawater (RMNS) collaborating with producers of currently available RMNS. Primary determinands are nitrate, nitrite, phosphate and silicate
- Collaborate with and encourage the National Metrology Institute of Japan to complete certification of RMNS for nitrate, nitrite, phosphate and silicate
- Develop new sampling and measurement protocols using the RMNS
- Carry out an international collaboration exercise to verify the stability of the reference materials and test the proficiency of the new protocols
- Complete a revised nutrients analysis manual
- Distribute 10,000 bottles of reference material for nutrients to laboratories measuring nutrients as part of the CLIVAR Repeat Hydrography Programme to construct a global nutrient dataset referenced to the new RMNS
- Promote the use of RMNS to aim for global acceptance in order to enable reliable comparability between global nutrient data sets, and to investigate the feasibility of expanding RMNS to include ammonium and dissolved organic matter
- Collaborate with the ocean science community that uses chemical reference materials, including carbonate system reference material for dissolved inorganic carbon, total alkalinity and pH, and dissolved oxygen in seawater.

Discussions included developing and establishing reference materials for nutrients in seawater (RMNS), collaborating with producers of currently available RMNS, the background and history of SGONS and international nutrients scale system, INSS (see IOCCP newsletter, February 2009), progress with the production and certification of RMNS materials, and the status of the nutrient analysis chapter for the revised GO-SHIP manual.

Results of RMNS used on hydrographic cruise P6 in 2009/2010 by Scripps Institute of Oceanography showed considerable improvement of internal comparability and external comparability among the stations and between the 2009/2010 and the 2003 cruises, the latter of which was conducted by JAMSTEC with RMNS. The group also agreed to hold the next inter-laboratory comparison study in early 2011 and expand the number of laboratories participating.

For more information: visit the SGONS Web-site at
<http://www.mri-jma.go.jp/Dep/ge/2010SGONSmeeting/index.html>

