

Report on the Second meeting of the SOLAS/IMBER Carbon research group

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The joint SOLAS/IMBER Carbon (SIC) research working group held their second meeting, in Paris on April 10, 2007. The SIC group is composed of three sub-groups which provide scientific guidance and oversee the development, planning and implementation of the SOLAS/IMBER ocean carbon research. Over the last 18 months, sub-group I, focussed on Surface Ocean Systems and chaired by Nicolas Metzl, organized the Surface Ocean pCO₂ Vulnerability and Variability workshop that was held in Paris on April 11-14, 2007. This workshop was highly successful (see report in this issue) and resulted in the identification of priority actions for the improvement of our knowledge of both pCO₂ variability and vulnerabilities issues. These actions include the development of a coordinated international effort to produce a publicly available Global Ocean pCO₂ data synthesis, the planning for the production of a Surface CO₂ Atlas, and the development of regional synthesis groups. A *Deep-Sea Research II* special issue from the workshop is in preparation.

Sub-group II, chaired by Nicolas Gruber, is focussed on the Interior Ocean. During the past year, this Sub-group formed a task team that prepared a white paper proposing incorporation of oxygen on Argo floats (Argo-Oxygen). The Argo-Oxygen project was presented to the Argo scientific committee in early April 2007. It became clear during the presentation that the scientific community should generate funding at the national and international levels to develop a pilot project recognizing that the strongest support for such pilot projects will come from answering scientific questions. It was suggested that the projects be focused at a regional/basin level to evaluate the long-term stability and accuracy of the sensors. In the coming year, the Argo-Oxygen task team will work with the scientists already engaged in the

incorporation of oxygen on Argo effort to develop and fund pilot projects.

The growing interests in the carbon research community to further develop and strengthen the international synthesis activities has also motivated the formation of a second task team for Sub-group II. This International Synthesis task team will promote the global-scale synthesis of the ocean interior carbon and biogeochemical data collected since the end of the WOCE/JGOFS surveys in order to detect and analyze trends. This effort will build on the efforts initiated for the Atlantic and Pacific oceans. It is envisioned that, over the next 18 months, this task team will organize an international meeting that would bring together the communities currently working on the Atlantic and Pacific basin data syntheses.

Finally, sub-group III, chaired by Kitack Lee, is focussed on Sensitivity to Climate. It was agreed that a membership should be proposed in the coming six months and that this group organize a meeting to synthesize our understanding of climate feedbacks to the ocean, identify scientific issues and develop a strategy to move forward. Ocean acidification is a topic that should be on the priority list for this Sub-group and it was recommended that this Sub-group develop leadership in the integration of national and international ocean acidification initiatives.

The SIC Research Implementation plan is available electronically on both websites (www.imber.info and www.uea.ac.uk/env/solas/). It was decided to review and then print a limited number of hard copies (200-400) for distribution to managers of funding agencies and policy makers as well as at meetings.

The next SIC group meeting is planned in March 2008 in Orlando, in conjunction with the Ocean Sciences Meeting 2008.