

# **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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## **Data set release: Climatology of Global Surface Ocean Alkalinity**

Dr Kitack Lee from Pohang University of Science and Technology has made available to CDIAC a new global data set on ocean surface alkalinity. Surface Total Alkalinity fields were estimated from five regional TA relationships presented in Lee et al. 2006, using monthly mean sea surface temperature and salinity from the World Ocean Atlas 2001. The data file consists of 36 columns, including latitude, longitude, sea surface temperature(SST, Jan-Dec), sea surface salinity(SSS, Jan-Dec), calculated total alkalinity from January through December (TA, Jan-Dec).

See the CDIAC website ([http://cdiac.ornl.gov/oceans/Lee\\_Surface\\_Alk\\_Climatol.html](http://cdiac.ornl.gov/oceans/Lee_Surface_Alk_Climatol.html)) for more information.

## **Meeting report: GlobCOLOUR First User Consultation meeting**

The goal of this meeting was to demonstrate the feasibility of a global archive of merged ocean color products from SEAWIFS, MODIS and MERIS, and to assess the accuracy of these merged products to select the most efficient merging algorithm. Whereas a large set of parameters are considered within GlobCOLOUR, this preliminary assessment focused mostly on Normalized water-leaving radiances (nLw) and on the Chlorophyll-a concentration (Chl), for which extended in situ dataset are available.

During this first phase of the project, products were generated using three different merging algorithms (the simple and weighted average models; the GSM method) and two datasets (global daily products for July 2002, October 2002, January 2003 and April 2003; about 20 local diagnostic products). The validation relies on three in situ datasets: NOMAD, SEABASS and BOUSSOLE.

Global results show that the merging data from different sensors allows efficiently filling daily maps of both nLw and Chl. They also show that the three merging algorithms lead to results that look quite similar, even if the use of the GSM model seems to reduce the dynamic of Chl at high values. The quantitative validation performed with in situ data shows that the use of the GSM model leads to the best accuracy for both nLw and Chl, and that, among the two others, the weighted average method is more efficient than the simple average one. In most cases, the required accuracies (5% on nLw and 35% on Chl) are not met, but it was acknowledged during the meeting that they were likely

unrealistic. Global maps of the other parameters were presented. They look good, but it was not possible to validate them with this reduced preliminary dataset.

Conclusions at this stage are that the feasibility of a merged ocean color archive is demonstrated and that two merging methods (weighted average and GSM) will be considered, at least until further validation or improvements clearly demonstrate the superiority of one of them.

For further information, see the GlobCOLOUR web site (<http://www.globcolour.info/>)  
Report contributed by IOCCP SSG member Cyril Moulin ([cyril.moulin@cea.fr](mailto:cyril.moulin@cea.fr))

### **New CCHDO Website**

Funded by NSF, the CLIVAR Carbon Hydrographic Data Office website has been updated. The CCHDO's primary mission is to be a repository and distribution center for CTD and Hydrographic data sets of the highest possible quality. These data are a product of WOCE, CLIVAR and numerous other oceanographic research programs -- past, present and to come. Whenever possible these data are provided in three widely-used formats: WOCE, netCDF and WHP-Exchange, which are recommended for data submissions to the CCHDO.

Clickable maps make access to data easy. For more see <http://cchdo.ucsd.edu/>.

### **Dick Feely elected AGU fellow**

NOAA/PMEL senior scientist Dick Feely has been elected as a new AGU fellow. As only 0.1% of AGU members are elected as fellows each year, it is quite an honour. The new fellows will be recognised in Acapulco, Mexico during the Joint Assembly in May. Dick was nominated for "His groundbreaking research and scientific leadership to quantify oceanic uptake of anthropogenic CO<sub>2</sub> and the effect of ocean acidification". On behalf of IOCCP we would like to congratulate Dick on his well deserved election. See the EOS January 9 issue for the full list of new AGU fellows: <http://www.agu.org/pubs/eos/eo0702.shtml> (AGU membership required).