

Carbon in Ocean Colour

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Synopsis: Use of ocean colour in assessment of the carbon pools (dissolved and particulate, organic and inorganic) and carbon fluxes is critical to close the global carbon budget. Novel applications, such as using ocean-colour data to derive parameters of primary-production models, need further development for use in climate studies. Along the current state of the art, particulate organic (POC) and inorganic carbon (PIC) are provided as standard products from various ocean colour missions.

Goal 1:

This breakout session will assess the performance and limitations of the current POC and PIC products. The session will recommend approaches towards validation of these products and towards consistent implementation of these algorithms in global operational processing systems across missions.

Goal 2:

This breakout will liaise with the modellers to understand the requirements for further Carbon products, including chlorophyll carbon ratio and dissolved organic carbon.

Discussion Topics:

- Where are the critical shortcomings and needs?
- What is ready for operational agencies to pick up?
- Algorithms development and validation: what actions are needed?
- What is needed from *in situ* observations?
- What are the priority directions, evolution of needs?

Agenda

14:00 – 14:10 Introduction (François Montagner)

14:10 - 14:25 Particulate organic carbon and phytoplankton carbon: algorithm comparisons (Hayley Evers-King, UK)

14:25 - 14:40 Dissolved carbon (organic and inorganic) in the ocean (Jamie Shutler, UK)

14:40 - 14:55 A modeller's perspective [Validity and impact of satellite products] (Cecile Rousseaux, USA)

14:55 - 15:10 Carbon in coastal waters (Hubert Loisel, France)

15:10 - 16:45 Discussion (see topics above)