

ГЛОБАЛЬНАЯ СИСТЕМА
НАБЛЮДЕНИЙ ЗА КЛИМАТОМ
НЕУСТААННО СЛЕДИМ ЗА КЛИМАТОМ

SYSTÈME MONDIAL
D'OBSERVATION DU CLIMAT
NOUS VEILLONS SUR LE CLIMAT

النظام العالمي
لرصد المناخ
لنضع المناخ نصب أعيننا

全球气候观测系统
密切监视气候

SISTEMA MUNDIAL
DE OBSERVACIÓN DEL CLIMA
SIEMPRE VIGILANDO EL CLIMA

GLOBAL CLIMATE
OBSERVING SYSTEM
KEEPING WATCH OVER OUR CLIMATE



GLOBAL CLIMATE
OBSERVING SYSTEM
KEEPING WATCH OVER OUR CLIMATE



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Europe's eyes on Earth

The Steering Committee decides to:

- a) Establish a task force to oversee the cycle work in the future and to make sure that recommendations feed into the next IP.
- b) This work is not necessarily limited to energy, water and carbon but may also extend to other cross-domain efforts such as for instance sea ice for which ECVs from different domain are needed.
- c) The Steering Committee also decides that, where possible, requirements should be aligned with existing ECVs. The Steering Committee also notes that differing requirements for different uses may be needed for a specific cycle.

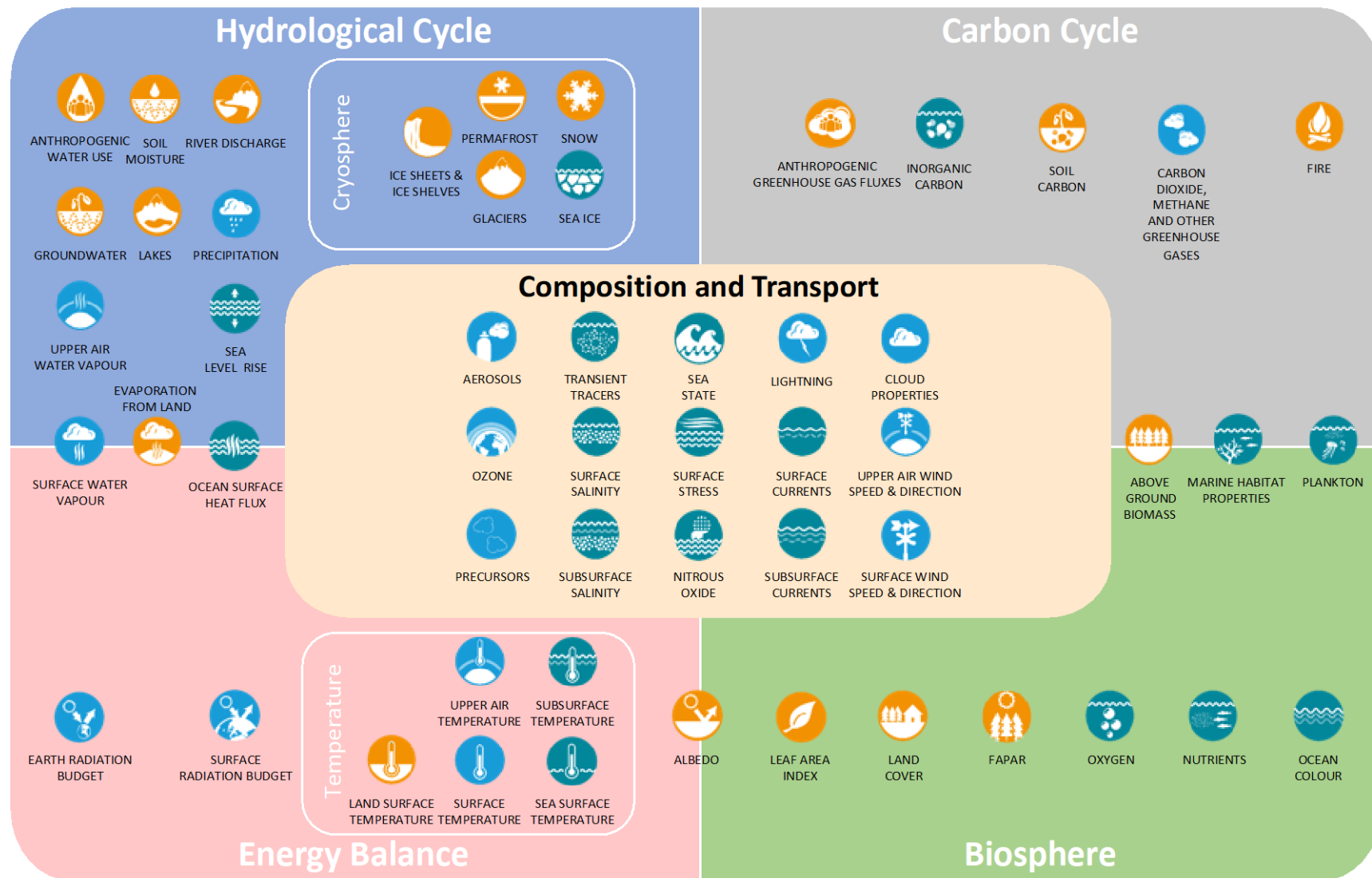
GCOS and the Earth's water, energy and carbon cycle

GCOS monitors ECVs of relevance to Earth System cycles

Since 2010 we determine how well we can close the cycles of
 Water
 Energy
 Carbon

Aim is to assess gaps, white spots and potential new ECVs

3 papers on each of the cycles



ECV Domain (Panel Responsibility):

- Land ECVs (TOPC)
- Water ECVs (OOPC)
- Atmosphere ECVs (AOPC)

Closing the Water Cycle from Observations across Scales Where Do We Stand?

Wouter Dorigo, Stephan Dietrich, Filipe Aires, Luca Brocca, Sarah Carter, Jean-François Cretaux, David Dunkerley, Hiroyuki Enomoto, René Forsberg, Andreas Güntner, Michaela I. Hegglin, Rainer Hollmann, Dale F. Hurst, Johnny A. Johannessen, Christian Kummerow, Tong Lee, Kari Luoju, Ulrich Looser, Diego G. Miralles, Victor Pellet, Thomas Recknagel, Claudia Ruz Vargas, Udo Schneider, Philippe Schoeneich, Marc Schröder, Nigél Tapper, Valéry Vuglinsky, Wolfgang Wagner, Lisan Yu, Luca Zappa, Michael Zemp, and Valentin Aich

BAMS
Article

SPECIAL
COLLECTION
Earth's Energy Imbalance

SPECIAL
COLLECTION
Global Precipitation Measurement (GPM)

Earth Syst. Sci. Data, 12, 2013–2041, 2020
<https://doi.org/10.5194/essd-12-2013-2020>
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Heat stored in the Earth system: where does the energy go?

Karina von Schuckmann¹, Lijing Cheng^{2,28}, Matthew D. Palmer³, James Hansen⁴, Caterina Tassone⁵, Valentin Aich⁵, Susheel Adusumilli⁶, Hugo Beltrami⁷, Tim Boyer⁸, Francisco José Cuesta-Valero^{7,27}, Damien Desbryères⁹, Catia Domingues^{10,11}, Almudena García-García⁷, Pierre Gentile¹², John Gilson¹³, Maximilian Gorfer¹⁴, Leopold Haimberger¹⁵, Masayoshi Ishii¹⁶, Gregory C. Johnson¹⁷, Rachel Killick³, Brian A. King¹⁰, Gottfried Kirchengast¹⁴, Nicolas Kolodziejczyk¹⁸, John Lyman¹⁷, Ben Marzeion¹⁹, Michael Mayer^{15,29}, Maeva Monier²⁰, Didier Paolo Monselesan²¹, Sarah Lyman¹⁷, Dean Roemmich⁹, Axel Schweiger²², Sonia I. Seneviratne²³, Andrew Shepherd²⁴, Donald A. Slater⁶, Andrea K. Steiner¹⁴, Fiammetta Straneo⁶, Mary-Louise Timmermans²⁵, and Susan E. Wijffels^{21,26}

Open Access
Earth System
Science
Data

manuscript submitted Reviews of Geophysics

1 How Well Do We Understand the Land-Ocean-Atmosphere Carbon Cycle?

- 2 David Crisp¹, Han Dolman², Toste Tanhua³, Galen A. McKinley⁴, Judith Hauck⁵, Stephen
3 Sitch⁶, Ana Bastos⁷, Simon Eggleston⁸, Valentin Aich⁸

- The cycles task force met once (complicated meeting)
- We discussed with WCRP to establish a joint task force
- There was no substantial response from WCRP on several requests
- The Energy Budget group has established continuity as a GCOS sponsored activity

- *Question to the SC: how to proceed with the other cycles and the integration, how to handle the links with WCRP?*