

Establishment and 1st meeting of the World Climate Research Programme Data Advisory Council (WDAC)

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WGCM16, Hamburg, 24-26 September 2012









Mandate

A combination of climate observations and models are resulting in significant amount of data and information. Research on and development of Earth observing systems, models and field experiments comprise an intrinsic part of WCRP activities and contribute to continuation and expansion of global environmental monitoring. Every WCRP project develops data and information and has a set of observation activities. The WCRP Data Advisory Council (WDAC) will act as a focal point for all WCRP data, information, and observation activities with its sister programmes, and will coordinate their high-level aspects across the WCRP, ensuring cooperation with main WCRP partners such as GCOS and other observing programmes. WDAC will work with the WCRP Modelling Advisory Council to promote effective use of observations with models and to address issues related to the coordinated development of data assimilation, reanalysis, Observing System Sensitivity Experiments, and paleoclimatic data and their assessments.









Terms of Reference:

- To serve as a focal point for observations and data in WCRP
- To advise JSC and <u>coordinate with WCRP Projects and Working Groups on issues pertaining to</u>
 observations and climate data
- To promote research using sustained observations and data from process studies across the WCRP
- To promote assessment of the adequacy of sustained observations and derived products to support climate research
- To promote assessment of gaps in the global observing system in cooperation with observation programmes
- To promote coordinated assessment and comparison of climate-data products, including those from reanalyses
- To promote research for continuing improvement in the processing and reprocessing of climate data
- To promote development of mechanisms for archival and preservation of, access to and analysis of data, and associated meta data
- To promote standards for product generation, including global and regional reanalyses
- To promote development of coupled data assimilation and a coordinated approach to reanalysis across all domains









Membership:

Members will be appointed by JSC for a 3-year term with a possibility of two 2-year extensions:

- Chair and vice-chair (both independent)
- Representative from each of the 4 projects (SSG nominates, JSC confirms)
- Representative from each of the 3 GCOS panels (chairs or their nominees)
- Representative of the WCRP Modelling Advisory Council
- Representative from the Working Group on Regional Climate
- Representative of IGBP (IGBP SC nominates)
- Representative of SOLAS (SOLAS SSC nominates)
- Representative of CEOS (chair or vice-chair of WG Climate)
- Representative of CGMS (CGMS secretariat nominates)
- Representative of PCMDI (PCMDI nominates, JSC confirms)

Representatives are <u>ex-officio</u> appointments representing their respective organizations. Other international agencies and observations coordinating bodies may participate as observer members of the Council.









Meeting schedule:

The Data Council <u>meets annually and reports to the subsequent JSC</u> session and partner programmes. Dates will be chosen by consensus of membership.

Mode of functioning:

The WCRP Data Advisory Council is expected to:

- Communicate regularly by email, teleconference or videoconference
- Meet in person, annually as a minimum
- Encourage joint meetings of working groups and/or panels to promote communication or to launch focused joint initiatives

WDAC should have the flexibility and resources to promote action within existing WCRP projects and panels or by appointing limited duration task teams to accomplish its tasks.









Members

Chair Vice-chair CLIVAR representative **GEWEX** representative CLIC representative SPARC representative GCOS TOPC representative GCOS AOPC representative GCOS OOPC representative WMAC representative IGBP representative SOLAS representative CEOS representative CGMS representative **PCMDI** representative At large

Otis Brown Toshio Koike P-P. Mathieu Joerg Schulz Walter Meier Kaoru Sato Han Dolman Adrian Simmons Eric Lindstrom Jean-Noel Thepaut David Schimel Brian Ward Mark Dowel Joerg Schulz TBD Michael Bosilovich









Obs4MIPs

- Background: WDAC was briefed on the ongoing initiative Obs4MIPs, which makes observing datasets available in an ESGF accessible format.
- Recommendation: WDAC encourages broadening of contributions from the WCRP core projects, CEOS, CGMS, IGBP, SOLAS and the Reanalysis community to this activity, so as to populate the ESGF and further facilitate model-data comparisons









WDAC: Next meeting

- Venue TBD, likely in April/May 2013
- Suggested topics:
 - 1. Briefing on Obs4MIPs
 - 2. Workshop on observations for reanalysis
 - 3. CEOS and GOSIC to brief on ECV inventories including maturity matrix approach
 - 4. Four core projects to brief on their best data assessment practices in guiding users to specific data sets
 - SCOPE-CM presentations on the outcome of phase 1 considering specific ECV data records
 - 6. Network design, OSSEs
 - 7. Data needs to initialize models to provide seasonal ice outlooks
 - 8. Bio-geochemical data brief for Earth system models by IGBP representative
 - 9. Surface fluxes
 - 10. ESGF governance follow-up from various meetings









Thank you for your attention!









Back-ups









SCOPE-CM

 Background: There is ongoing collaboration between research and operational groups in the transition of data sets facilitated by multiagency initiatives such as SCOPE-CM and GEWEX GDAP.

For example:

- GEWEX ISCCP to NOAA.
- EU HOAPS to EUMETSAT CM SAF
- Recommendation: JSC to encourage all WCRP projects to engage with operational activities such as SCOPE-CM regarding satellite observing data sets









ECV inventory

- Background:
 - Data set inventory proposal was developed at the Joint WCRP/GCOS workshop in Frascati, Italy in April 2011. Subsequent discussion between WOAP chair and NOAA/NCDC has led to an implementation plan developed by NCDC for the GOSIC data portal
 - There are ongoing activities on a data set inventory by CEOS/CGMS to establish an architecture for space-based climate monitoring. A web-based community questionnaire is forming the basis for the first version of the this architecture
- Recommendation: WDAC urges harmonization between the GOSIC and the CEOS/CGMS initiatives, which would provide a composite inventory of *in situ* and satellite observations
- Action: WDAC task group will monitor progress and report to the next WDAC session









Reanalysis

- Background: The 4th WCRP International Conference on Reanalyses called for international coordination on input observations (in situ and remotely sensed covering atmosphere, ocean and land)
- Recommendation: initiate planning activities for a WCRP workshop addressing these issues
- Action: Task team composed of M. Bosilovich, A.
 Simmons and J. N. Thepaut to develop a proposal for this workshop, likely to be held in 2014









Miscellaneous

- Recommendation: Put higher priority on measuring non-physical variables such as partial pressure of carbon dioxide (pCO2). Include the SOCAT database in the ECV inventory and in Obs4MIPs
- Action: WDAC will liaise with the WMO Global Cryosphere Watch (GCW) on Arctic data issues and to help GCW integrate efforts within the wider climate data community activities
- Action: WDAC will encourage development of climate data stewardship and efforts towards data set publication and traceability of data set versions (citations, peer-reviewed articles, DOIs)
- Action: WDAC web page will add links to data initiatives to core groups
- Watch (TBC): GCOS: possible action from JSC after GCOS SC regarding GTOS issue/sponsorship to TOPC





