

## obs4MIPS for CMIP6 Workshop Objectives

**Background:** Over the past 3 years, obs4MIPs has successfully completed its pilot phase by developing a set of technical protocols (e.g. data set formats, documentation) for data set contributions, produced over 50 that conform to these standards and archived them for distribution on the ESGF along side CMIP5 model output. Obs4MIPs is being embraced by the community, with the WCRP Data Advisory Council (WDAC) empaneling a group to provide guidance and governance for obs4MIPs at an international level, in conjunction with the existing NASA science working group that is more tightly focused on NASA satellite data products. With the IPCC-AR5 soon to be published, attention is turning to the planning of CMIP6. Keeping the utility of the first DOE-NASA obs4MIPs meeting in mind (Gleckler et al. 2010, EOS), and the discussions starting on the architecture of CMIP6 (AGCI Workshop, Aspen, August 2013), we propose to organize a workshop focused on coordination of the CMIP6 standard model output with the evolution of obs4MIPs, with particular emphasis on products that are currently under utilized for model evaluation. The participants would primarily include observation data set providers, model development and analysis leads, CMIP6 experiment architects and obs4MIPs leads/organizers.

The **workshop goal** is to ensure that relevant satellite data sets currently (or potentially) available can be fully utilized for CMIP6 research.

The **workshop objectives** are:

- 1) Review aspects of model evaluation from CMIP3/CMIP5 that utilize satellite observations and reanalysis for diagnosis and assessment.
- 2) Assess the utility of the current obs4MIPs holdings, including formatting, documentation, temporal and spatial resolution, and ESGF delivery, in the context of CMIP model evaluation.
- 3) Identify currently under-utilized and potentially valuable satellite observations and reanalysis for climate model evaluation and process understanding.
- 4) Examine the mismatch between CMIP model output and satellite-based products, and recommend changes and additions to output and datasets to achieve more effective alignment.
- 5) Provide recommendations for new observation data sets that target critical voids in model evaluation capabilities, including important phenomena, sub-grid scale features, and holistic Earth System considerations extending to composition, carbon cycle, hydrology, etc.
- 6) Discuss the utility and expansion of satellite simulators for model evaluation of CMIP6, striving to identify key areas where such developments could yield high impact advancements in model evaluation and improvement.

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### obs4MIPs for CMIP6 Workshop Agenda

Location TBD

February – April Time Frame, 2014

#### **2 – 2.5 Day Invitation-only(?) workshop - details TBD**

*Proposed by: Robert Ferraro (JPL), Peter Gleckler (PCMDI), Karl Taylor (PCMDI) and Duane Waliser (JPL). Additional organizers are anticipated.*