**Obs4MIPs Science Working Group Meeting**

**May 22, 2012, GSFC/NASA**

**Meeting Notes and Action Items**

**Attendance:**

*In Person:* Waliser, Ferraro, Platnick, Peters-Lidard, da Silva, Gleckler

*Via Telecon:* Lee, Nemani, Loeb, Bates

*Absent:* Landerer, Bowman

*Invited Guests:* David Considine, Jerry Potter, Phil Webster

Agenda

8:30-8:40 : Welcome Remarks, Tsgengdar and Duane

8:40-9:30 : Status of obs4MIPs datasets and ESG, Robert

9:30:10:30: Status of CMIP5 and Climate Metrics Panel, Peter

10:30-11:00: Break

11:00-12:00: New Datasets, Aerosol & Composition, Arlindo & Kevin

12:00-1:00: Lunch

1:00-2:00 : New Datasets, Cloud Products and CFMIP, Steve & Norm

2:00-3:00: New Datasets, Land Products, Christa & Rama

3:00-3:30: CEOS Climate Workshop Outcomes, John

3:30-4:00: Analogous Reanalysis Effort, Jerry

4:00-5:00 Continued Discussion

5:00-5:30: Future ROSES and Program Guidance

**Overview**

Most discussion centered on additional data sets, formatting details, non-conforming data sets and issues of expansion (e.g. two variables of same quantity), governance, other agencies data sets and participation, satellite simulators and future funding needs/opportunities.

**Outcomes, Resolutions, Action Items**

1. Providing **Land Products** was recognized to be of very high priority.

Snow Cover – MODIS-derived (deemed the highest priority)

LAI –used by iLAMB but not yet listed in CMIP5 protocol but expected to for CMIP6.

Albedo – MODIS or AVHRR-derived

FPAR – MODIS

Soil Moisture – AMSR-E/microwave (although this could be very difficult to make direct model-observation comparisons given an apples to oranges aspect here)

Terrestrial Water Storage – GRACE – requires the user to add up other quantities in the model and thus represents a diversion from initial protocols.

**Action Item:** Proceed to identify specific data sets and points of contact for the above data sets and obtain “obs4MIPs Data Recommendation Forms” for each. From that point, SWG can discuss and if all necessary items are in place, Robert can shepherd the data set into ESG in conjunction with data set lead contact. **Christa and Rama**

1. A number of **Composition and Aerosol Products** were deemed possibly ready.

* MISR aerosol – over land (contact D. Diner)
* MODIS aerosol – over ocean (contact S. Platnick)

*Given the discontinuity in the above products re: land/ocean, it was recommended to keep them separate and let the user determine how best to use/combine them based on the technical documentation that should be cognizant of his issue and each data set.*

* TES, MOPPIT and/or AIRS Carbon Monoxide
* SBUV/OMI total ozone – total is not a CMIP5 variable and user has to vertically integrate vertical profile, expect total column ozone to be a CMIP6 variable.

For aerosol products and model evaluations, it was recommended that CMIP6 include a protocol for clear-sky calculations. (**Arlindo** may need to clarify/elaborate).

**Action Item:** Proceed to identify specific data sets and points of contact for the above data sets and obtain “obs4MIPs Data Recommendation Forms” for each. From that point, SWG can discuss and if all necessary items are in place, Robert can shepherd the data set into ESG in conjunction with data set lead contact. **Arlindo and Kevin**

1. A number of **Cloud-Related Products** were discussed.

* Surface Radiation Budget (EBAF) – deemed a high priority

**Action Item:** Proceed to identify specific data sets and points of contact for the above data sets and obtain “obs4MIPs Data Recommendation Forms” for each. From that point, SWG can discuss and if all necessary items are in place, Robert can shepherd the data set into ESG in conjunction with data set lead contact. **Norm**

* The **CFMIP** contribution was discussed at some length. It is viewed as an exceptionally valuable dataset for the purposes of model evaluation and one that was motivated by most of the same principles that motivated obs4MIPs. The issue discussed was how far to go in trying to turn that multi-variate, CF-compliant, documented data set into an obs4MIPs compliant data set in order that it can be strictly analogous and adhere to the same standards or just host the CFMIP dataset on the ESG in a somewhat analogous fashion, providing links between the two “home” pages. Because the CFMIP data set tends to be a for a more specialized user with more expertise, and because it adheres to so many of the usability principles already, it seemed unnecessary and somewhat extraneous work to ask that group to put in the extra effort to make it completely obs4MIPs compliant. In this case, expectations are that it be highlighted as a separate data set or a specialized component of obs4MIPs.

**Action Item:** Continue to consider the linkages between obs4MIPs and CFMIPand how this linkage is represented on the website(s) and to the community.  **Peter, Norm and Steve**

1. **Action Item**: Reconsider the utility of GPS Occultation Data (e.g. humidity and temperature) in obs4MIPs, POC: Tony Mannucci. **Robert**
2. **Action Item**: Work to get 1-2 of the CMUG ECV variables into obs4MIPs. **Robert**
3. **Action Item:** As it became clear there was a need for additional effort to be supported to stand up additional data sets, there was an interlude to work with Considine and Lee to draft a $300k request to Jack Kaye for additional funding to support these activities. **Robert**: this support has since been granted and transfer of funds is in process.
4. **Action Item:** It was recommended that a “Lessons Learned” regarding the migration of a standard (NASA) satellite data product to an “obs4MIPs” product be documented. **Robert and Jerry Potter**
5. **Action Item:** Formal acceptance of the “obs4MIPs” Data Set Proposal Form once a (optional) “common name” entry was added to the form. **Duane**: updated to version 1.0 June 2012.
6. Similarly, it was felt that it would be desirable to have a formal list of requirements for that a data set must have to be considered for obs4MIPs. This could be included in the Data Set Proposal Form discussed above as an appendix. **Robert**
7. **Action Item:** Formal acceptance of the Technical Documentation Guidelines was given, although it was recommended that one pass be given to make it less NASA-centric. **Robert**.
8. The frequency and protocol of data set updates was discussed with no particular recommendations arrived at.
9. In a number of contexts, the issue of multiple data sets for a given variable arose in discussion (e.g. governance, additional agency participation, variables of different character/sampling, provides observational uncertainty). It was decided that multiple data sets would be acceptable and often advantageous, although careful scrutiny will have to be provided by the obs4MIPs governance to account for quality control and to keep the overall data withholdings somewhat simple in terms of users not being overwhelmed with too many data sets for the same quantity that don’t offer any additional value.
10. For some cases, it may be desirable and advantageous to be able to document more than one variable with the same technical document (e.g. if the number of observations or the standard deviation are included). Governance of this issue will be considered at the time the data set is proposed for inclusion into “obs4MIPs”.
11. **Action Item:** If a variable is to represent a climatological description (e.g. annual cycle), the manner the climatology was computed needs to be well described in the technical documentation. Add this to technical note guidance. **Robert**
12. **Action Item:** Governance beyond NASA data sets was discussed, and the hope and expectation are that the WCRP “Observation Data Council” might appoint a group/panel to help in this regard, and that the NASA SWG would continue its governance over the NASA component of the activity and provide guidance and leadership to the broader activity. Keep abreast of WCRP Observation Data Council activities and provide updates to WCRP and this Council. **Duane**. At the solicitation by Michel Rixen (WCRP), a ppt has been drafted on obs4MIPs for the upcoming/inaugural meeting of the ODC in July, 2012.
13. It was felt that no significant or different effort is needed to advertise obs4MIPs, and continued presentations at meetings and workshops will suffice for the near term. Specific meetings/workshops/communities to target are: EGU, iLAMB, SPARC, CLiC, WGNE Systematic Errors Workshop, NCAR CESM Workshops. **All members of SWG.**