U.S. Clivar Working Group on Hurricanes
Minutes of fourth teleconference, March 27, 2012

Attendees: Gabe Vecchi, Kevin Walsh, Jim Kossin, Tim LaRow, Hiroyuki Murakami, Kazuyoshi Oouchi, Tomo Ose, Christina Patricola, Kevin Reed, Malcolm Roberts, Siegfried Schubert, Enrico Scoccimarro, Dan Shaevitz, Gabriele Villarini, Hui Wang, Mike Wehner, Ming Zhao, Mike Patterson, Jennifer Mays [have I missed anyone?]

Introduction of new Hurricane group members: Gabe introduced and welcomed new contributing members to the Hurricane WG: Tomoaki Ose and Hiroyuki Murakami from MRI, Japan, and Dan Shaevitz from LDEO/Columbia University (PhD. student working with Suzana Camargo). With Tomo and Hiroyuki’s participation, the MRI model will join the list of models used for tier-one experiments.

Models’ data status:

Models that have contributed data by 3/26/12:

1. **CCMC--INGV: ECHAM5**: Climo runs (present day, SSTp2K, 2CO2, SSTp2K2CO2) – monthly, daily and 6-hourly data
2. **FSU**: Interannual run (6-hourly (2 ensemble members) and monthly (3 ensemble members) data)
3. **GFDL -- HIRAM**: Climo runs (present day, SSTp2K, 2CO2, SSTp2K2CO2), interannual run (3 ensemble members) – monthly data
4. **GISS**: Climo runs (present day, SSTp2K, 2CO2, SSTp2K2CO2) – monthly, daily and 6-hourly data
5. **NASA GSFC -- GEOS5**: Interannual run (3 ensemble members) – monthly data
6. **JAMSTEC -- NICAM**: 5 months present and 5 months future
7. **NCEP – GFS**: Climo runs (present day, SSTp2K, 2CO2, SSTp2K2CO2) – monthly, daily and 6-hourly data – 2 ensemble members all cases

Models that have contributed information:

1. **CCMC--INGV: ECHAM5**
2. **FSU**
3. **GFDL -- HIRAM**
4. **GISS**
5. **NASA GSFC: GEOS5**
6. **JAMSTEC : NICAM**
7. **NCEP – GFS**
8. **U. Michigan, NCAR, LBNL: CAM5.1**
9. **Texas A&M : WRF**

Models’ run status:

**Tier 1 experiments**: this refers to any groups who have run experiments but have yet to upload data.
Michael Wehner’s CAM runs – have completed the interannual run. Runs have been performed initially at 1 degree resolution and then at 0.25 degrees resolution.

Michael Roberts Hadley Centre – have performed runs but are still looking for resources to convert and upload data

Some groups have performed runs with different SSTs from the protocol but Gabe suggested that this could also represent an opportunity to compare the results of forcing using different SST data sets.

Models’ information for BAMS paper: Gabe will now be leading this paper. The paper will use the group prospectus as a starting point, with a focus on Tier 1 experiments. The models involved in the process will be described. Gabe pointed out that some model results will need to be part of the paper. He is aiming for a draft in the middle of April. Gabe also asked a few groups to forward their basic model specifications for listing in the paper: Met Office, Monika ECHAM6, Hiroyuki’s model. ACTION ITEM: These groups to forward specs to Gabe.

JCLI special issue - potential interest: eight positive replies have been received, with a couple of other possibles. This is viewed as sufficient to pursue this. ACTION ITEM: Kevin W. to follow this up further with J. Climate.

Ming Zhao draft paper and slides: Ming showed some recent results of an intercomparison between the model responses to imposed perturbations (the 2xCO2 and 2K experiments). The crucial result is that the model response is mostly in the same direction for both experiments. Other tests have shown that there is little change in the model response to thresholds imposed in the tracking scheme, as Ming pointed out that such a sensitivity might be more characteristic of coarser-resolution models. ACTION ITEM: Kevin W. and Ming to work together on these issues [Editor’s note: likely with the help of others].

Ming pointed out that it would be useful to have other groups involved in this paper but 6-hourly data would be needed for the tracking. Gabe wondered whether it was a good idea if other results could be presented at future teleconferences.

Tier 2 simulations - AMO, extended CO2: The “AMO” experiment refers to a specified SST pattern that has an AMO-like structure, similar to that previously used by the drought working group. The “extended-CO2” experiment refers to a multi-model specified SST change, either an ensemble average CMIP3 or CMIP5 coupled model prediction. A discussion ensued on which ones the group might pursue. The consensus was that the group should pursue the AMO experiment, as this has been used before by the drought group and found to be very useful. There was not so much interest from the group in the CMIP3/5 ensemble experiments. ACTION ITEM: Gabe to send to the group a figure showing his recently-constructed CMIP5 future climate SST pattern.

Gabe asked if there were other possible experiments to be suggested. Siegfried mentioned some parameter sensitivity tests, such as those that altered the results of convective parameterizations. It was suggested that Siegfried should try this and see if then they could make any recommendations to the group regarding how they should then proceed.
ACTION ITEM: Gabe to pursue finding the most appropriate “AMO” SST field to use (EOF2 from drought working group?).

Web site: Mike noted that Jennifer [Editor’s note: welcome, Jennifer] will update the web site for us. ACTION ITEM: Gabe to send through changes that need to be made.

Summary of ACTION ITEMS:

- Met Office, Monika ECHAM6, Hiroyuki’s model. These groups to forward specs to Gabe for inclusion in BAMS paper draft.
- Kevin W. to follow this up special issue with J. Climate.
- Kevin W. and Ming to work together on tracking issues [Editor’s note: likely with the help of others].
- Gabe to send to the group a figure showing his recently-constructed CMIP5 future climate SST pattern.
- Gabe to pursue finding the most appropriate “AMO” SST field to use (EOF2 from drought working group?).
- Gabe (or Suzana) to send through to Jennifer changes that need to be made to update the website.

Next meeting: [Editor’s note: not discussed]