

Discovery driven: **PI Shubert/POC: Houser**

1) Project Status & Progress: Highlight recent progress, and overall status

We are continuing to make progress on the model intercomparisons of the response to the idealized SST forcing. We now have results from NCEP/GFS, CCM3, GFDL/AMP2.1, and CFS (runs by Ben Kirtman). NCAR has also started runs with the latest version of CAM3. Early results (see e.g., updated quad chart) indicate both similarities and significant differences in the response over North America. Our further analysis will focus on the physical mechanisms that lead to drought or pluvial conditions over North America (e.g., impact of soil moisture feedbacks, changes in storm tracks and moisture transport), and how these differ among the models.

As part of our contribution to the integration project #2, we have taken a preliminary look at our coupled seasonal forecasts for the summers of 2006 and 2007, and we appear to reproduce some of the key climate anomalies of these two years over the United States. The next step is to see if we can isolate the mechanisms (e.g., is it the result of our soil moisture initialization?).

2) Collaboration: What connections were made, and how did NEWS benefit from your collaborations? We have over the course of this project developed extensive collaborations with the broader drought community. This is in part driven by our participation in the USCLIVAR drought working group activities, but it has been greatly facilitated by our NEWS project. I believe both NEWS and the greater climate modeling community can benefit from having other NEWS investigators contribute to the analysis of these data (results are being made available on an ftp server).

3) Issues: Are there any problems or issues that your POC can help you with? None other than the fact that our funding ends this year.

4) Products: If product driven research; what products are, or will be ready to be posted on the NDIC in the near future? What products are you using that you found useful, that can be added to NDIC?

This is not a product driven project but we will have a considerable amount of relevant model output (perhaps we can have links to these data?)

a) GMAO 2006/2007 coupled model hindcasts and AMIP runs

b) large suite of coordinated simulations with many of the major US climate models (NCAR, NCEP, GFDL, NASA/GMAO).

5) Integration: Define your project's current and near-future contribution to integration projects (both NEWS multi- PI, as well as the 3 defined questions). Define expectations for action items (a forward looking timeline) specifically; what can you commit to and who can you connect with to make progress towards answering questions.

As mentioned above, (for integration project #2) we have taken a preliminary look at our coupled seasonal forecasts for the summers of 2006 and 2007, and we appear to reproduce some of the key climate anomalies of these two years over the United States. The next step is to see if we can isolate the mechanisms (e.g., is it the result of our soil moisture initialization?). Comparisons with our on-going AMIP runs should help us isolate the role of global SSTs.

We plan to complete this work by the end of our funding cycle. We have had a setback recently in our ability to make progress on this, since Phil Pegen left to work at CPC. I am looking to hire a replacement.

6) Alignment with NEWS IP: Assessment and mitigation of gaps.