

US CLIVAR MJO WG

Telecon Minutes

April 14, 2008; 1:00-2:00pm US West Coast

Telecon Participants: Daehyun, Matt, Jon, Ken, Duane, Eric, Klaus, Bill, Chidong

Topics of Discussion

1) MJO Workshop Summary

Duane and Ken will move forward with submission once we have worked out “MJOWG” byline with BAMS.

2) Paper 1: MJO Simulation Diagnostics

First draft of summary by Chidong will be included with other sections by Duane. Chidong has suggested the addition of a single field EOF to paper. Who will write up corresponding results? We need to add the calculation code for the coherence and cross-spectrum calculations to the diagnostics website. We expect the “final” draft version to be done in a couple weeks and Duane will pass around for final comments before submission to BAMS.

3) Paper 2: Application of MJO Simulation Diagnostics to Climate Models

Daehyun has done extensive work in analyzing and generating diagnostics of the model output sent to him by MJOWG members. He sent a draft version of the paper to Duane and Ken. Bill Stern has agreed to look at the first draft and work with Daehyun and Ken to finalize the figures. One suggestion is that additional spatial plots are needed for the evaluation of model performance, especially with respect to the relationship between low-level moisture convergence and convection, and the text will need to be adjusted accordingly.

4) MJO Forecasting activities and development of paper 3

CPTEC (Brazil) is a new contributor to the forecast diagnostics in response to our solicitation letter. Our WGNE supported invitation letter for participation in the forecast activity will be posted to the forecast website in case other interested parties wish to contribute to the MJOWG forecast effort.

A question arose about instantaneous vs daily averaged data in terms of the 120 day historic values that have to be removed, particularly in regards to the “sliding” part that moves into the forecast period.

Jon provided a ppt presentation to update us on the status of the collection and display of MJO forecasts. The details of the data submission format are being finalized, and it is anticipated that within a few weeks regular contributions from the forecast participants will be forthcoming. Phase-space plots of the principal components will include shading of 50% and 90% agreement of the ensemble members, with the trajectories of the individual members also plotted. Once a sufficient length of contributions is obtained (e.g., 90 days) anomaly skill scores of the principal components will be included. The MJO forecast website is:

http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/clivar_wh.shtml. A telecon will be held in early June to discuss feedback acquired on the forecast diagnostics presented on the website.

Klaus introduced the use of anomaly correlation skill scores for derived quantities (e.g., 250mb psi), and a phase-space plot that demonstrates the skill as a function of the

state of the MJO at the initial forecast time. These measures require a comprehensive hindcast dataset from which the statistics are derived (see item 5).

Jon has agreed to take the lead in developing a journal article that describes the MJO forecast diagnostics, their application to NWP forecasts, and the adoption of these diagnostics by a number of operational centers. Examples of successful and poorly forecast events could be included. This work would also serve to entice other NWP centers to participate in this activity. We will also highlight our forecast efforts at the Trieste meeting on “Seasonal Predictability in Tropical Regions and Workshop on Multi-scale Predictions of the Asian and African Summer Monsoon” during which we have been given a 1-day time slot of presentations to organize as we see fit.

5) Follow-on Activities

D. Legler has solicited input for the July 2008 US CLIVAR Summit regarding our recommendations for follow-on activities. Examples of activities include defining MJO case study periods that NWP centers could use as standard test cases for assessing newly proposed model versions. Over and above this, coordinated hindcast experimentation for assessing historical skill is a candidate for a future activity. It is hoped that these, and experimentation derived for the assessment of important and/or missing physics for improved simulation of the MJO could become foci for support by the IAG. It was agreed that as the Summit draws near we will try and assemble and articulate a few specific recommendations and pass to D. Legler.