

## **Actions arising from Joint MJO TF/AAMP Workshop 2010**

**Action:** Prepare Intraseasonal Modelling Workshop summary, including recommendations (Ken, HHH, Duane, Matt); then circulate

## **Actions arising from Joint MJOTF/AAMP and AAMP meeting 2010**

### **ISV Hindcast Experiment**

**Action:** MJOTF (Wheeler) to interact with Monsoon ISV Prediction Experiment (Wang/Jun-Yi) to develop Support to develop systematic verification methods that are applicable to forecasts and hindcasts of the MJO. The verification and skill measures should assess performance using EOF based indices as well as the evaluation of the spatial representation of MJO forced response (e.g., anomaly correlation of spatial fields), and be useful for evaluation single and multi-model skill.

**Action:** AAMP (Hendon and Wang) instigate discussions with MJOTF to consider additional “analyses” of Monsoon ISV hindcasts aimed at assessing “simulations”. In addition to forecast skill.

**Action:** Rajeevan to initiate a discussion with Wang/Jun Yi to investigate possibility of developing statistical-dynamical forecasts of Indian summer monsoon intraseasonal rainfall (dynamically predict MJO indices and then using composite rainfall patterns associated with those MJO indices to make probabilistic ISV rainfall predictions). Compare with direct rainfall forecasts from models.

**Action:** AAMP recommends that MJOTF begin thinking about how to quantify multi-scale interactions of relevance to MJO/ISV; need objective methods. Hendon/Sperber to convey to MJOTF.

### **YOTC case studies (Joint with AAMP and AMY)**

**Action:** AAMP/AMY/YOTC to invite/endorse NICAM to run additional boreal winter cases. Wheeler/Waliser to correspond with Moncrief.

**Action:** Facilitate model validation activity between YOTC and AMY (Hendon to correspond with Wang and Jun). Need to address:

- Clarify how simulations/predictions can be confronted with the AMY observations
- AMY needs to feed back to YOTC what are the unique data sets that can be used to evaluate processes in the monsoon
- Kioh to communicate with Moncrief/YOTC about configuring high-res models for Indonesian region, where AMY has good/unique observations
- Wang/Jun need to clarify what needs to be focused on from AMY perspective
- Sperber will convey to Ruby Leung that she is encouraged to extend her South Asian Regional Reanalysis (SARR) through the YOTC period (April 30, 2010), and ideally through the CINDY2011/DYNAMO observational period

(October 1, 2011 – March 31, 2012). It is suggested that she interface with AMY to use their field data for assimilation in her regional reanalysis and for evaluation of regional model process studies over this region

- Wheeler to clarify relationship between TGGE MJO forecast with WGNE effort lead by Jon Gottschalck and MJOTF (in progress)

### **CINDY2011/DYNAMO**

- **Action:** AAMP to support the CINDY-DYNAMO request for provision of high res forecasts and analyses from available forecast centres. Hendon will correspond with Zhang and Kunio.
- AAMP/YOTC to promote coordinated numerical experimentation for Cindy-Dynamo, perhaps drawing upon pre-existing YOTC protocol and/or ISV hindcast protocol, and making use of the full range of modelling abilities (AGCMs, OGCMs, CGCMs, tropical channel, coupled regional mesoscale, regional, cloud resolving, SCM, ocean mixed layer models). Hendon to coordinate discussion between YOTC/CINDY-Dynamo.

### **Action arising from AAMP meeting 2010**

#### **Regional Climate Modelling**

**Action:** Sperber to inform Ruby Leung (and F. Giorgi) of efforts in which regional climate modelling can make important contributions:

- As noted under YOTC and CINDY2011/DYNAMO it is suggested that the South Asian Regional Reanalysis (SARR) be extended through the YOTC period (April 30, 2010), and ideally through the CINDY2011/DYNAMO observational period (October 1, 2011 – March 31, 2012)
- It is suggested that RCM community interface with AMY to use their field data for assimilation in the regional reanalysis and for evaluation of regional model process studies over this region
- Regional Climate Outlook Fora, held in April and November, are interested in regional downscaling of the respective summer season and winter season forecasts

#### **Land Surface Interactions (Joint with AMY, and GLACE?)**

Action: Zubin to contact GLACE to discuss possible monsoon seasonal land surface prediction project.

#### **Monsoon Diagnostics for AR5 (Joint with AMY)**

**Action:** A task team has been established (Akio, Andy, Bin, In-sik, Ken, and Tianjun) to design a project to evaluate Asian-Australian monsoon in the CMIP5 models. AMY (through Bin and Tianjun) endorsed participation in this effort at the Kun Ming, China Meeting in December 2009. The task team will consider:

- The list of diagnostics that Ken presented (developed jointly with Bin and H. Annamalai), the global monsoon evaluation that Bin presented, and the monsoon indexes that Akio presented at AAMP10

- Setting up a conference for the presentation of CMIP5/AR5 monsoon evaluations or in a session at the CLIVAR Open Science Meeting in October 2011?, and establishment of special journal issue for publishing results in a timely manner to meet the deadline for inclusion in the AR5

## **AMY**

**Action:** Foster interaction with other programs/projects

- Jun/Kitoh to contact Mitch/Duane/YOTC about:
  - Availability of MRI/JMA reanalysis (Jan 2008-Dec 2009 reanalysis by JMA 60km 3-hourly) which should be ready end 2011
  - Availability of Harimaru and Indonesian radars, wind profilers, etc, useful for MJO passage. Data from 2007 onward needs to be made accessible to YOTC
- Will AMY be a partner in the 2011 April AAMP/RCOF workshop?
- AMY Open Science Conference could perhaps be held in conjunction with the monsoon conference proposed by B. Hoskins
- AAMP should consider planning new Asian Monsoon program (2013-?), which includes Indian Ocean Panel's new effort to monitor monsoon onset in Bay of Bengal.

## **ITF Working Group**

**Action:** AAMP supports the establishment of the ITF Working Group, to be conveyed to Yukio (IOP chair), suggesting that:

- Dr. Kug and Dr Jae-Hak Lee should be considered as members
- Gabe to communicate to IOP the need for modelling perspective and also to ensure that ISV to seasonal time scale is considered since Indonesian region is highly relevant to monsoon ISV/seasonal variability
- ITFWG should have a coordinated modelling activity that focuses on assessing impacts and mechanisms of ITF variability (encourage development of diagnostics to evaluate impact of ITF on ISV and seasonal cycle; eg ENSO teleconnection to IO (compare to altimeter data), but need others, which can help "tuning", sculpting of bathymetry

## **AAMP**

**Action:** Prioritize our focus for next year and for AR5. Key items are:

- Organize next AAMP meeting in conjunction with RCOF
  - Carlos to contact Takano to discuss possibility of holding joint meeting with Forum on Regional Climate Monitoring, Assessment and Prediction for Asia (FOCRAII) or the South Asia Climate Out-Look Forum (SASCOF)?
  - Rajeevan and Carlos to pursue possibility of meeting with SASCOF.
  - Bin, In-sik, and Andy to pursue organizing a workshop on Monsoon Decadal Variations, perhaps with PAGES.
  - Holger to take lead on the aspect of the workshop that focuses on application/capacity building and instigate dialogue with Jim Hansen

(IRI; CGIAR?) to communicate our desire to have stakeholder engagement/adaptation, etc. (or could be key focus of the workshop)

- Bin to contact AMY to consider joint involvement in workshop
- As noted above the monsoon diagnostics task force will develop diagnostics to support coordinated analysis of the CMIP5/AR5 models, including establishment of a conference and possibly dedicated journal issue(s) to present results in time for AR5

**Action:** Consider new directions/emphasis for AAMP

- ISV activities are well established, consider new efforts for decadal/millennium monsoon variability that will make strong contribution to AR5.

**Action:** Membership

- Hendon to discuss with Ken possible 1.5 yr extension as co-chair
- Need to indicate support for Rajeevan for 2 more years
- Need to indicate support for Bin and In-Sik for 1 more year
- Nominate Matthieu Lengaigne to replace Bo at end of 2010
- Nominate James Hansen (IRI) to replace Holger at end of 2010

**Action:** Miscellaneous

- Get AAMP member on scientific organizing committee of Hoskins proposed monsoon conference, Carlos to contact organizers (Burrige?).