







Our ref.: 5711-09/RES/YOTC

GENEVA, 4 December 2009

Subject:

WCRP-CLIVAR WWRP-THORPEX - Task Force

Action required:

Formation of a YOTC Task Force on the Madden Julian Oscillation (YOTC

MJO Task Force)

Dear colleague,

It is widely recognised that improved understanding and prediction of the MJO is crucial for both the weather and climate communities. The YOTC Science Plan and Implementation Plan highlight the importance of research on the MJO (www.ucar.edu/yotc). Following the completion of the term of the US CLIVAR MJO Working Group, it has been proposed to continue and develop its successful activities internationally. To best accommodate this extension, it has been agreed that an MJO Task Force should be formed, for an initial term of 3 years, within the framework of the joint WWRP/THORPEX/WCRP YOTC activity, and report to the JSC-WWRP, ICSC THORPEX and the CLIVAR SSG.

The Task Force will be responsible for organising workshops and maintaining communication with the groups mentioned above.

We have pleasure in inviting you to become a member of this Task Force which will be Co-Chaired by Duane Waliser and Matthew Wheeler and would be grateful if you would confirm your willingness to participate to Jim Caughey (jcaughey@wmo.int) and Valery Determmerman (VDetemmerman@wmo.int) at WMO.

An initial meeting of the Task Force is currently being organized in conjunction with the next session of the CLIVAR Asian-Australian Monsoon Panel and a workshop on modelling monsoon intraseasonal variability. The tentative plan is for these meetings to take place mid-June 2010 at the APCC in Busan, Korea. The TF meeting will be preceded by teleconferences in early 2010 to establish priority activities for the TF.

(L. Barrie)

Co-Director

Research Department and

Director

Atmospheric Research and Environment

Programme Branch

Yours sincerely,

(G. Asrar) Co-Director

Research Department and

Director

World Climate Research Programme

To: Proposed Initial Members of the YOTC MJO Task Force

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Proposed TORs of the YOTC MJO Task Force

Overall objective:

Further development and promotion of process-oriented diagnostics/metrics that improve our insight into the physical mechanisms for robust simulation/prediction of the MJO and that facilitate improvements in convective and other physical parameterizations relevant to the MJO.

Activities of the Task Force:

- Organize analyses of the multi-scale interactions within the context of convectively-coupled tropical waves, both in observations and by exploiting recent advances in high-resolution modeling frameworks, with particular emphasis on vertical structure and diabatic processes. For this item, the YOTC MJO TF should help design modeling experiments in the context of YOTC, CMMAP, and/or CASCADE to best utilize the available data resources with focus on multi-scale and vertical processes.
- Promote the ongoing evaluation of real-time MJO forecasts (as endorsed by WGNE).
- Expand efforts to develop and implement MJO forecast metrics under operational conditions, including a boreal summer focus and multi-model ensemble development.
- Develop an experimental modeling framework (e.g.,hindcast experiment/dataset) to assess MJO predictability as well as forecast skill of the MJO and closely related phenomena from contemporary/operational models.
- Interact with the proposed activity to simulate monsoon ISOs under the WCRP monsoon cross cut activity, including application of MJO diagnostics to outputs and integration of these simulations with the overall MJO experimental modeling framework.
- Organize workshops and meetings of opportunity to further the work of the Task Force