

**Summary of YOTC Implementation Planning Workshop,
13-15 July, 2009, East-West Center, Univ. Hawaii, Honolulu, HI**

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Complete report: www.ucar.edu/yotc

Global Prediction

High-resolution operational deterministic-model data sets

Integrated Observations

Satellite, field-campaign, *in-situ* data sets

Organized Tropical Convection



Year of Tropical Convection

Global Interaction

Research

Attribution studies of global data sets; parameterized, superparameterized, and explicit convection in regional-to-global models; theoretical studies

General points

- High-resolution, global analysis and forecast data sets available to the community from ECMWF, NCEP and GMAO/NASA
- Satellite data resources (e.g., NASA A-Train, TRMM, geostationary) and NASA Giovanni dissemination framework.
- Overlapping field programs (e.g., T-PARC, VOCALS, AMY) will benefit from and contribute to YOTC.
- Periods of interest in the “Year” identified, including target phenomena in the YOTC Science Plan, e. g., MJOs, easterly waves, tropical cyclones, monsoon variability, extratropical interaction.
- Application of advanced modeling capabilities, e.g., global cloud-system resolving models (NICAM, GEOS-5); MMF-superparameterization; tropical channel models

Modeling and analysis activities of relevance to CMMAP

- Multi-model transpose-AMIP experiment addressing critical issues in weather and climate models: 5-day initialized forecasts over YOTC period with a wide range of climate models e.g., CMIP5, CAPT/DOE-NCAR, GEWEX/EUCLIPSE, CMMAP MMF/ superparameterization
- Global and/or regional cloud-system resolving prediction experiments focused on YOTC periods of interest (e.g. Japan NICAM, UK Cascade, GMAO GEOS-5, NCAR)
- Tropical intraseasonal multi-model (about 15 models) 20-year hindcast experiments focused on the YOTC period in association with CLIVAR AAMP and AMY.
- Extension of the GEWEX Cloud System Study (GCSS) Pacific Cross-section Intercomparison (GPCI) for the June-August 2008 period

Above activities not possible or not nearly as effective without the YOTC data sets and research framework, will contribute to the advancement of the parameterization of physical processes.

Selected Recommendations/Actions

- **YOTC period, May 2008-Oct 2009, be extended through April 2010 to include developing El Nino for winter 2009-10 [to date La Nina conditions have prevailed].**
- **YOTC Implementation Plan: a “living document” with the Draft completed by Sept.1, 2009; subsequent updates/revisions as required.**
- **Consider how YOTC can provide an integrated framework for Asian Monsoon Years (AMY) projects.**
- **Identify ocean analyses for coupled model experimentation and forecasts, e.g., NCEP Climate Forecast System Renanalysis and Reforecast (CSFSRR).**
- **1st YOTC Research Workshop Oct. 2010, possibly in Beijing, China**

AGU Fall Meeting YOTC Session
San Francisco, 14-18 December 2009

Session A38: Multi-scale Organization of Tropical Convection and its Interaction with the Large-scale Circulation: Year of Tropical Convection (YOTC)

Conveners: Mitch Moncrieff & Duane Waliser

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