## Real time monitoring and forecast support for DYNAMO at CPC: A paradigm for effective operations to research interaction

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DYNAMO is the U.S. component of an important international observational campaign (CINDY2011) that will take place in the Indian Ocean from October 1st, 2011 to March 31st, 2012. During the several phases of this campaign, measurements of key atmospheric and oceanic variables related to the Madden-Julian Oscillation (MJO) will be taken using aircraft, radars, radiosondes, buoys and ships. To aid the optimization of observational strategies we have developed a tailored suite of monitoring and forecast products specifically addressing the needs of DYNAMO. In the first part of this talk we will present specifics of this suite of products. Monitoring and forecast products for DYNAMO include operational numerical weather/climate prediction (NWCP) tools and their interpretation by NCEP forecasters. The NWCP tools will utilize NCEP's Global Data Assimilation System (GDAS), the high-resolution Global Forecast System (GFS), the ensemble Global Forecast System (GEFS) and the Climate Forecast System (CFS, a coupled ocean atmosphere model). This suite of products allows guidance over a range of spatial and temporal scales. This provides the opportunity for comprehensibly studying MJO events in real time with state-of-the-art NCEP model configurations focusing on proposed hypotheses for the mechanisms of MJO initiation and maintenance. The CPC NWCP tools, before becoming completely operational during the DYNAMO campaign, will be implemented at an experimental quasi-operational level as of late spring 2011. During the second part of this talk, we will present MJO events and/or other subseasonal activity occurring during the summer and early autumn 2011 as interpreted by our NWCP suite of tools.