NOGAPS ensemble prediction of tropical cyclone genesis: Evaluation during T-PARC/TCS-08
Andrew Snyder, Department of Meteorology, University of Utah, Salt Lake City, UT
Zhaoxia Pu, Department of Meteorology, University of Utah, Salt Lake City, UT
Carolyn A. Reynolds, Naval Research Laboratory, Monterey, CA (Presenter)

ABSTRACT

The ensemble system from the U.S. Navy’s Operational Global Atmospheric Prediction System (NOGAPS) model is evaluated in its performance of predicting tropical cyclone genesis and evolution. Several cases of named tropical cyclones during the T-PARC / Tropical Cyclone Structure (TCS-08) field program (August-September 2008 in the Western North Pacific Basin) have been examined in detail to demonstrate the predictability of tropical cyclone genesis and evolution in the NOGAPS ensemble products. The overall skill of ensemble forecasts, ensemble means and spreads, and probabilities in both pre-genesis and post-genesis stages are compared and evaluated. Two non-developing cases are also examined. Two different ensemble schemes, with and without stochastic convection, are also compared based on their ability to produce accurate forecasts of tropical cyclone genesis and evolution.