The Development of the Ensemble Based Typhoon Track Forecast Technique

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The purpose of this study is effective in improving the ensemble technique for typhoon track forecasts using multi-model ensembles. The models from global (ECMWF, NCEP) and regional ensembles (CWB EPS, TTFRI EPS) were applied to develop the ensemble based technique. A selective ensemble technique is based on the 12-h typhoon track distance from the CWB (Taiwan's Central Weather Bureau) best-track for 2014-2015. The results show that the superior performance of ensemble based technique to all ensemble means by reducing 12.1%, 6%, 4.1% track errors of 24-, 48- and 72-h forecast, respectively. We also applied this technique for tropical cyclones forecast over the Western North Pacific Ocean in 2016 . The detailed analyses on ensemble technique and individual ensemble models will be presented in the conference.