

Regional atmospheric data assimilation coupled with an ocean mixed layer model: a case of typhoon Soudelor (2015)

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This study investigates the effect of atmosphere-ocean coupling in a regional atmospheric data assimilation system for a case of Typhoon Soudelor (2015). A simple ocean mixed layer model, known as the Price-Weller-Pinkel (PWP) model, has been implemented into a regional atmospheric data assimilation system SCALE-LETKF, composed of the regional atmospheric model SCALE-RM and the local ensemble transform Kalman filter (LETKF). It is expected that the ocean mixed layer model brings more realistic physics to the simulation and modifies the ensemble spread, particularly near the ocean surface. In this presentation, we will report the impact of the coupling effect in a case of Typhoon Soudelor (2015).