# Numerical Weather Prediction Experiments using a Coupled Atmosphere-Ocean Data Assimilation System in JMA/MRI (2)

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An atmosphere-ocean coupled data assimilation system (CDAS) has been developed at the JMA/MRI to investigate feasibility of a CDAS as a future DAS for seamless numerical prediction including both numerical weather prediction (NWP) and numerical seasonal climate prediction (NCP), and for reanalysis of the atmosphere-ocean. Our CDAS (**MRI-CDA1**) has two features. 1) It composed of the JMA operational systems, the global atmospheric DAS (MRI-NAPEX) based on 4D-Var, the global ocean DAS (MOVE-G2) based on 3D-Var, and the atmosphere- ocean coupled global forecast model (CGCM: JMA/MRI-CGCM2). 2) Coupling strategy is “weak coupling” with two different data assimilation window lengths for the atmosphere and ocean. Here, “weak coupling” denotes the approximation that ignores correlations of atmosphere and ocean background forecast errors. Following the previous report in JpGU-AGU joint meeting 2017 (Ishibashi et al. 2017), we will report basic property of MRI-CDA1 in NWP.

Keywords: data assimilation, numerical weather prediction, atmosphere ocean coupled data assimilation

 