

## Study on the air-sea interaction on the Baiu frontal zone using JCOPE2 and JCDAS

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Air-sea interaction on the Baiu frontal zone over the East China Sea were investigated using JCOPE2 (Japan Coastal Ocean Predictability Experiment) and JCDAS (JMA Climate Data Assimilation System). The JCOPE2 has a sufficient resolution for studying correspondance with atmospheric variability (daily, about 10 km in horizontal), and makes the analysis of air-sea interaction with shorter time scale possible.

The Yellow Sea, which is the northern part of the East China Sea, has a small heat capacity because of the shallow depth less than 100 m, and has a large seasonal variability of water temperature. The significant seasonal variability of the Yellow Sea influences on the formation of the cold and warm air masses to the north and south of the Baiu frontal zone. The water temperature of the Yellow Sea is varied in association with the air masses in shorter time scale (a few days or more), and could be one of the causes of the seasonal migration of the Baiu frontal zone.

Keywords: Atmospheric objective analysis, Oceanic objective analysis, JCOPE2, JCDAS, Baiu front