Seasonal Variations of Sea Surface Temperature and River Plume in the Bohai Sea

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Bohai Sea





Sensor · · · · · NOAA/AVHRR(Band 4,5) Area · · · · · · · · 35°30' ~ 41°30' N 116⁰23' ~ 126⁰36' N Duration · · · · · 2002.1.30 ~ 2002.12.31 Cloud · · · · · · · · · less than 50% Resolution · · · · 1.1 km x 1.1 km Composite · · · · 5 days

SST data in this study

Provided by NPEC at TOYAMA, Japan







Heat transport







Resolution $\cdots 1 \text{ km} \times 1 \text{ km}$

Duration · · · · · · · 2002.Jan.1 ~ 2002.Dec.31

From NOAA Homepage







Normarization

10:Mouth of the Yellow River

0:Central part of Bohai Strait



• Seasonal variation (1)





• Seasonal variation (2)









• Short-term variation





Tide-induced residual flow





Cui and Yanagi (2004)

Field Observation



Bohai Sea Project

To clarify the effect of variability of the Yellow River discharge to the marine environment of the Bohai Sea

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2003-2007

Satellite images Field observation Hydro-dynamical and Ecosystem models