

<u>AOGS 1st Annual Meeting</u> > <u>Ocean and Atmospheres</u> > (OA7) Long-term changes in water temperature and salinity in the East China Sea >

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Title: (OA7) Long-term changes in water temperature and salinity in the East

China Sea

Abstract: Long-term changes in water properties in the East China Sea are analyzed

using historical hydrographic data. The temperature and salinity in the World

Ocean Database (WOD01) are used to produce a gridded dataset.

Hydrographic data since 1997 collected by National Fisheries Research and Development Institute (NFRDI) of Korea are added to WOD01. Monthly averaged temperature and salinity during 1961~2000 are calculated at each standard depth. The horizontal distribution of temperature and salinity show the generally known feature. For example, SST in February shows two

protruding feature of isothermal lines indicating a northwestward expansion of warm water into the Yellow Sea west of the Cheju island and a southeastward expansion of cold water southwest of the Cheju island.

Salinity distribution shows the same protruding feature. The winter SST in 1990s is higher than in 1960s, while the summer SST in 1990s is lower than in 1960s implying the decrease of the amplitude in seasonal variation. MLD is calculated from the long-term mean temperature profiles. It is defined as the depth at which the temperature differs by 0.2°C from the SST. The MLD in February ranges from 20m to 95m with the maximum depth in the southeast

part of the Cheju island.

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