

C-1

Temperature Variation in coastal regions with the passing of a typhoon using a three-dimensional primitive model

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An oceanographic measurement by Senjyu and Watanabe (1999) shows that a sudden drop of temperature in the northern Japanese coastal regions occurs with the passing of Typhoon Oliwa, September in 1997. The temperature variation ranges 6 to 7 °C. A three-dimensional primitive model (Princeton Ocean Model) is implemented to examine how it happens. The model domain covers most of the northern Pacific Ocean (24° N to 52° N) including the East China Sea, the Yellow Sea, and the East (Japan) Sea. In the open ocean the model circulation, sea surface elevation and temperature distribution are described; the results are in part compared with the observation. The model well reproduces features in the observation and gives an insight to understand how it happens.

Reference

Senjyu T., and T. Watanabe. 1999. A sudden temperature decrease along the San'in coast induced by a typhoon. *Umuto Sora*, 75, 1-8.(in Japanese)