Oceanic Responses to Rare Typhoon Vamei Near-Equator in the South China Sea

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Typhoon activity, in the southern South China Sea region, is affected profoundly by ENSO (Zuki et al., 2008). Traditionally, it was believed that tropical cyclone-free less than 5°N in the northern hemisphere. However, typhoon Vamei, which developed in the South China Sea , at 1.4°N and 106.5°E, on 27 December 2001. The formation of Typhoon Vamei was discussed already from observations and simulation. The rare equatorial tropical cyclogenesis of Typhoon Vamei was a result of interactions of monsoonal cold surges and local circulations (Chang *et al.*, 2003). On the other hand, the analysis of the model output indicated the important role of the latent heat flux in the genesis and intensification of tropical cyclone Vamei(Juneng *et al.*, 2007). From satellite data, we get the ocean responses, such as SST and heat fluxes, to Typhoon Vamei and compare it with tropical storm Fitow 2001.

Keywords: Typhoon; satellite data; the South China Sea.

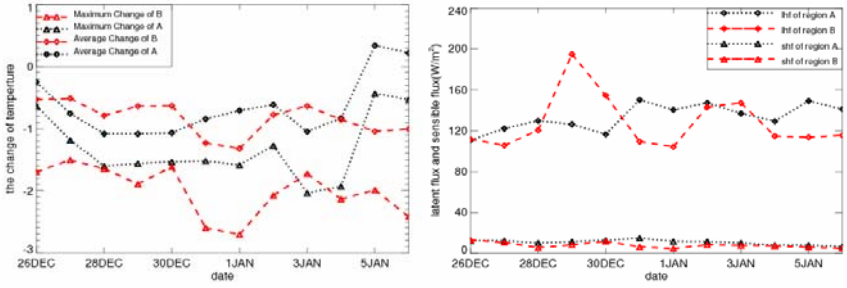

Figure 1. SST(left) and heat fluxes(right) response to Typhoon Vamei

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