

Evaluation of SST products from multi-sensors in East China Sea

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Abstract

To merge daily sea surface temperature (SST) from multi-satellites, the evaluation of daily SST in 2008 from MTSAT, AVHRR, AMSR-E, MODIS and TMI were analyzed in East China Sea. SST data were validated with the observation. The monthly-mean availabilities of the 5 sensors are very different with different month. The SST availability in winter was low for there appeared high frequencies of cloud. That in summer is high due to the sunny days. The annual SST availability of MTSAT is highest (70%). Those of AMSR-E, MODIS and TMI are almost equal (50%~60%). That of AVHRR is lowest (35%). Compared with the buoy data, the annual bias of MTSAT SST is -1.04°C , that of MODIS is 0.23°C and the others are $0.71\sim 0.86^{\circ}\text{C}$. In fact, the daily availabilities in East China Sea change largely. To obtain the high availability SST data, the interpolation method would be applied.

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