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Title: (OA6) Development of New Generation Sea Surface Temperature for the marginal seas of Northeastern Asia

Abstract: For establishment of a better regional ocean observing system in the coastal seas, high-resolution cloud-free quality-controlled daily SST products are desired by the application users as well as the regional ocean science community. To develop/generate new SST products, intensive scientific researches of remote sensing technology, air-sea interface dynamics and oceanic variability are needed. Better combinations of remote sensing measurements and regional in situ observation systems are required to achieve sustainable generation of the new SST products. The regional cloud-free, gridded, digital, quality-controlled New Generation Sea Surface Temperature (NGSST) should have 1) Spatial resolution: 1km, 2) Temporal resolution: 6-hours, and 3) Coverage: whole coastal seas. It was recognized that the regional high-resolution SST products have to deal with the diurnal SST variations explicitly. High-resolution SST retrieval problems (atmospheric correction, cloud/ice detection, validation etc), infrared and microwave SST merging methods, SST diurnal variations, and use of the in situ SST data are need to be investigated. Establishment of a regional SST data server for methodology development and new SST product generation is necessary. On the basis of established science/technology [1], scientific challenges and related researches are presented. Reference [1] http://www.ocean.caos.tohoku.ac.jp/~merge/sstbinary/actvalbm.cgi?eng=1

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