Remote Sensing and Sharing of Coastal Environmental Information

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It is necessary for conservation of coastal environment to be viewed in change of marine environment, habitats variety and number of species exactly. It is difficult to observe wide marine area closely from land or ship. Remote sensing from the air is very useful method in understanding environment in the wide marine area at short time.

Remote sensing can to record the environmental data of wide marine area such as image data and video recording. Remote sensing platform, such as, satellite, airplane, helicopter and so on, have been used to observe of coastal environment case by case. Those remote sensing platforms have been chosen by case of observation cycles, moving speed, cruising distance and height. Remote sensing sensor that aerial photograph, video recording, multi spectral scanner are selected by means of size, color, moving speed and appearance intervals of observation objects.

Image data of coastal environment have been observed in Tokyo Bay, Seto Inland Sea and Ariake Bay, such as, distribution of wild birds, seaweed beds, whales, drifting seaweed, oil spill and Red Tides. Those image data were used to collect phenomena in sea surface to apply technique of photo reading, photo-interpretation and image processing. Colleted data were stored in database system and shared to marine researchers using public network.