

Geostationary Satellite Ocean Color Mission

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Climate is changing, and seawater temperature and freshwater inflow is also changing significantly. The coastal marine ecosystem, which has been greatly affected by human influences, is considered to be changing further. Observation of ocean color is making it possible to continuously observe the coastal ecosystems, such as phytoplankton, suspended solids, salinity and seaweed beds. However, with the visible observations from single polar orbit satellite, sufficient data cannot be obtained in coastal areas where river water and tides tend to change in a short period of time, especially when there are many clouds. High-frequency observations of "Himawari" make it possible to observe both short-term fluctuations as well as data from even with frequent clouds area. On the other hand, the number of wavelengths and radiance resolution are insufficient to acquire accurate ocean color information. Therefore, we propose here the observation of ocean color with high frequency, high resolution and high radiance resolution by the geostationary satellite with additional ocean color band. This makes it possible to monitor phenomena affecting the coastal fisheries and aquaculture, such as red tide and river water, and to observe the material circulation along the coast. In addition, it is possible to contribute to understand the environment not only in Japan but also in the coastal areas of southeastern Asia, where it is influenced by relatively frequent clouds, by human activities, and by climate change. Furthermore, it is considered to be effective not only for observation of the ocean but also for observations of the atmosphere (aerosol) and land (vegetation and ice).

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