

Korea's Geostationary Ocean Color Program - Toward Transboundary Collaboration

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Korea Institute of Ocean Science and Technology has been running an ocean color sensor, called GOCI (Geostationary Ocean Color Imager) for the first time in geo-geostationary satellites since July 2010. GOCI observes the Northeast Asian seas eight times a day with eight spectral channels (6 visible, 2 NIR) and 500m spatial resolution, and the data are provided to users through internet. GOCI-II, the successor to GOCI, is in final development stage before it is launched in early 2020. Compared to GOCI, GOCI-II includes more spectral bands at central wavelengths 380, 520, 620 and 709 nm, and the spatial resolution is also improved to 250 m at nadir point. It also has pointing capability to view any area of interest within full disk (including Southeast Asia and Australia). GOCI was developed to monitor Korean coastal waters (red tide, water quality, fishery resources, etc.), and after launch, its data have been used to study various environmental issues of the ocean, atmosphere and land. And the GOCI data are widely used by researchers in neighboring countries owing to open data policy for scientific and educational use. In fact, international cooperation in the field of satellite ocean observations is becoming increasingly important due to the characteristics of simultaneous coverage of wide areas cross national boundaries. Of many other things, floating algae and aerosols are typical examples of large-scale phenomena affecting neighboring countries and earth observation community can collaborate to study these. This talk is to present examples of GOCI observations that brought common interests of neighboring countries and to discuss the possibility of more active international cooperation using ocean satellite observations such as GOCI-II for the next decade.