

# OCEAN OPTICS XXIV

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<https://oceanopticsconference.org>

Tuesday, October 9

Poster Session 2

10:30–12:30

## Poster 190

### **MULTI-YEAR GEOSTATIONARY OCEAN COLOR IMAGER (GOCI) RECORD: COMPARISON WITH MODIS AND VIIRS**

The first ocean color sensor on a geostationary orbit, Geostationary Ocean Color Imager (GOCI) onboard the Communication, Ocean, and Meteorological Satellite (COMS) has been operated for about eight years. The GOCI has a unique capability to examine hourly ocean color variability over seas between Korea, China, and Japan of which area is about 2500 km x 2500 km. The North-East Asia region where the GOCI observational domain covers is characterized by large regional diversity in ocean optical properties: clear water over the north western Pacific, less clear water over the East Sea/Japan Sea, and extremely turbid water in the coastal area of the Yellow Sea. Recently, the version 2 GOCI ocean color products with improved atmospheric correction method was newly released by Korean Ocean Satellite Center (KOSC). A new GOCI Chl-a algorithm proper to this regional sea domain has been created using in situ observation, and consistent validation efforts of the GOCI algorithm using the in situ measurements have been performed. Although multi-decadal ocean color records from NASA's legacy ocean color satellites (SeaWiFS, MODIS, VIIRS) had been well established, multi-year variability of the GOCI ocean color products over the North-East Asia has been less focused. For the application of the GOCI for climate application, this study will examine the consistency between with the GOCI data and the well-known, long-term ocean color record. The inter-satellite comparison on climatology, monthly, short-term variability of chlorophyll-a and remote sensing reflectance will be examined over diverse ocean optical environments within the North-East Asia region.

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