



Korea - United States Ocean Color (KORUS-OC) Study: A Cooperative Oceanographic Field Study in Korea



A joint ship-based campaign examining ocean color (KORUS-OC) is being conducted by NASA and KIOST

Dates: 20 May – 6 June 2016

Location: KIOST South Sea Research Center, South Korea

Participants:

Korea - Ministry of Fisheries, Korea Institute of Ocean Science and Technology (KIOST), and Korean Universities
US - NASA, NOAA, and University Partners

Ships:

- Onnuri research vessel
- Jang-Mok 1 research vessel

Airborne Platforms:

- LaRC King Air (GeoTASO air quality sensor and MOS ocean color imager)
- A companion airplane-based collaboration examining ocean color and air quality (KORUS-AQ) is being conducted by NASA and NIER.

Satellite Observations:

- Korean Geostationary Ocean Color Imager (GOCI)
- Himawari 8 Advanced Himawari Imager (AHI)

Science:

Better understand diurnal variability of coastal ocean biology, biogeochemistry, aerosols and physics to enable improved capability for satellite remote sensing and model simulation of ocean biology and biogeochemistry.

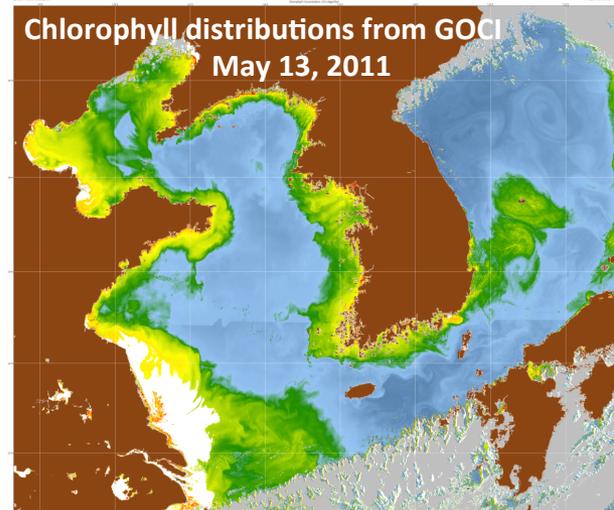
International Collaboration:

Develop relationships that will enhance future global ocean color satellite constellation including geostationary observations from GOCI and GOCI-II (KARI/KIOST) and GEO-CAPE (NASA).

Capacity Building:

Develop a stronger ocean optics and GOCI validation capability in Korea through direct experience on the Onnuri and Jang-Mok 1 oceanographic cruises.

Chlorophyll distributions from GOCI
May 13, 2011





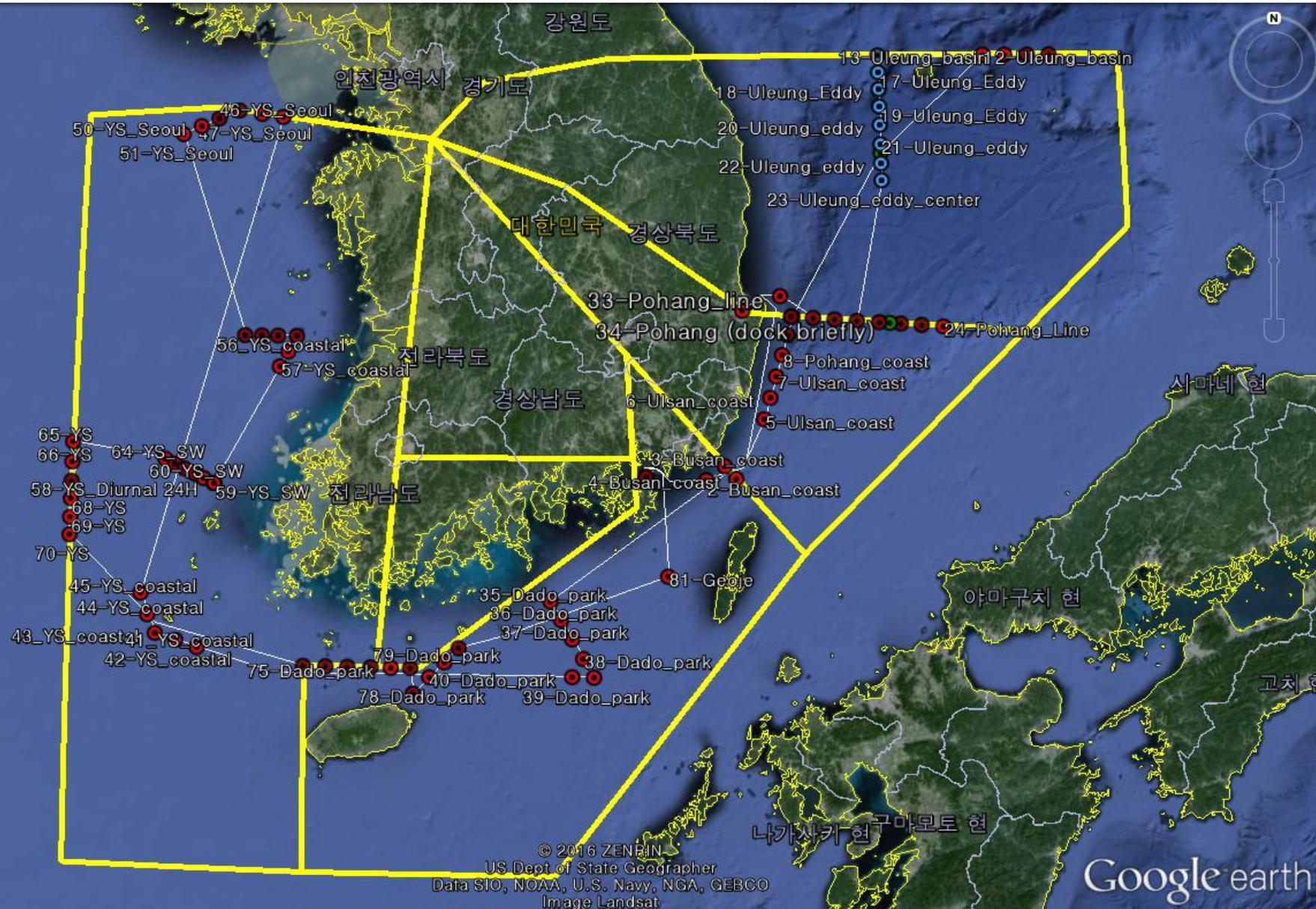
KORUS-OC: An International Cooperative Ocean Color Field Study in Korea

- A joint ocean color field study led by NASA and the Korean Institute of Ocean Science and Technology (KIOST). The field study (20 May – 6 June 2016) will focus on the links between satellite and ship-based measurements of ocean color, biology and biogeochemistry as well as atmospheric composition in coastal waters adjacent to the Republic of Korea. A region with diverse and dynamic physics and ecosystems.
- NASA and KIOST will make ship-based observations on the KIOST research vessels Onnuri and Jang-Mok 1. NASA will also collect airborne remote sensing ocean color and air quality measurements from the NASA B-200 aircraft along the ship tracks.
- Korea already has a geostationary ocean color and aerosol optical depth satellite (GOCI) and is building a second-generation sensor called GOCI-II.
- By comparing ship-based measurements with GOCI retrievals, we can examine retrievals throughout the day as a function of evolving conditions both in water and in the atmosphere, and collaborate with KIOST on optimizing retrievals from geostationary orbit in preparation for GEO-CAPE.
- U.S. will make airborne measurements of atmospheric aerosols and trace gases as part of the complementary KORUS-Air Quality (KORUS-AQ) campaign.





KORUS-OC Station map with airpath



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 Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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