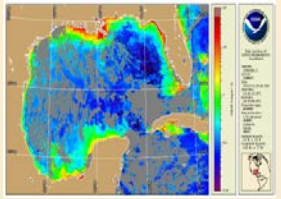
NOAA'S OPERATIONAL OCEAN COLOR PRODUCTS FROM THE COASTWATCH OKEANOS SYSTEM

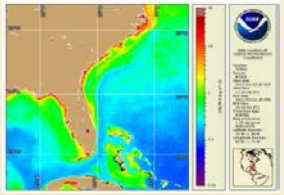
Okeanos (Greek god of the great 'river ocean' and the waters surrounding the Earth) system is a flexible, expandable software system for generating CoastWatch operational ocean color products.

Ocean color is the water hue due to the presence of tiny plants containing the pigment chlorophyll, sediments, and colored dissolved organic material.

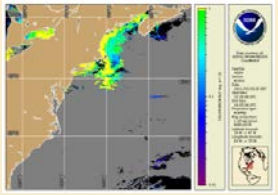
Operational Ocean Color Products



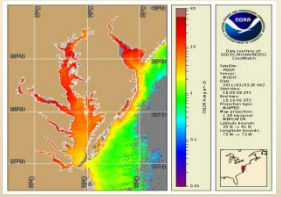
Daily chlorophyll concentration



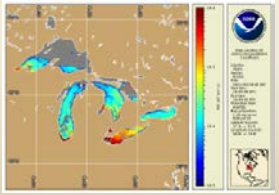
Bimonthly-mean chlorophyll concentration



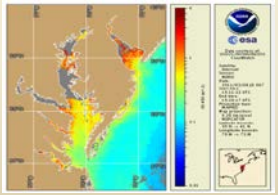
New algal growth (Positive chlorophyll concentration anomaly)



Chesapeake Bay daily chlorophyll concentration



Suspended sediment proxy (Remote sensing reflectance at 667 nm)



Water turbidity(Diffuse attenuation coefficient at 490 nm)

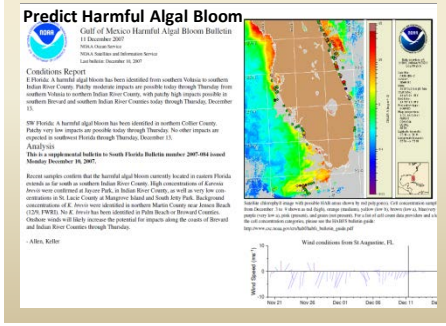
Products Users and Applications

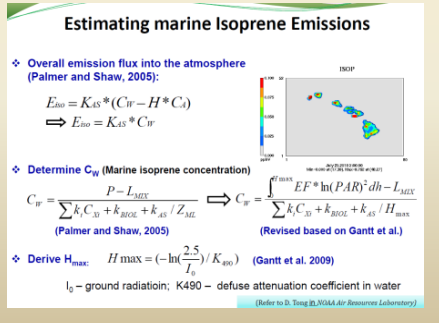
Users

- National Ocean Service & NESDIS
- NOAA ocean forecast model
- Federal, state and local marine scientists, and coastal managers
- Fisheries managers
- General public

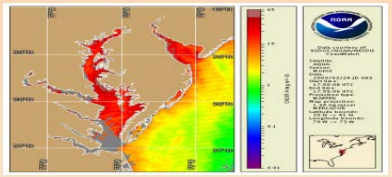
Applications

- Track potential harmful algal blooms
- Assess air quality through marine isoprene fluxes
- Assess water quality
- Assess habitat
- Review ocean features

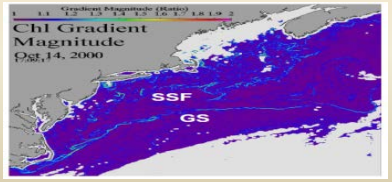




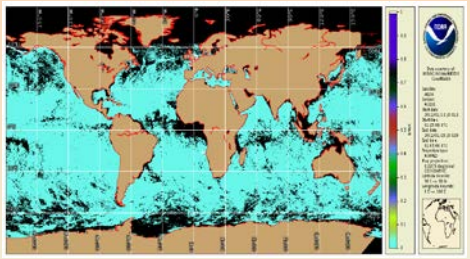
New/Upcoming Operational Ocean Color Products



Operational daily chlorophyll concentration using the NIR-SWIR method

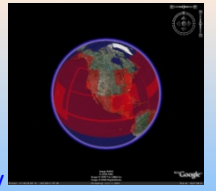


Daily chlorophyll front
(Operational Target: summer 2013)



Global map of 8-days, 4 km composite of E. hux from 01/13/2012 to 01/20/2012. *E.hux* bloom occurs off west coast of Africa in South Hemisphere.
(Operational Target: 2013)

Additional Information



- **Satellites**: MODIS/Aqua and MODIS/TERRA
- **Coverage**: 1/3 of the globe (13 regions)
- **Access Information**:
  - ***Okeanos ftp server***: ftp://okeanos.noaa.gov/
  - ***CoastWatch web portal***: http://coastwatch.noaa.gov
  - ***HAB Bulletin Web Portal***: http://tidesandcurrents.noaa.gov/hab/
- **Team Members**: B. Yan (lead), I. Simpson, E. Rodriguez, K. Hughes, H. Gu, P. Keegstra, S. Ramachandran, J. Guo, X. Liu, and M. Soracco.
- **Contact Information**: Banghua.Yan@noaa.gov
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