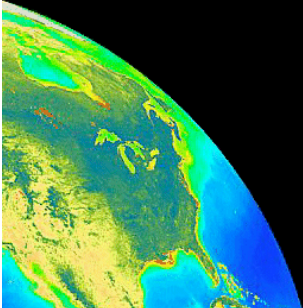


OBPG Status Report

Chuck McClain & Gene Feldman
Ocean Biology Processing Group Leaders

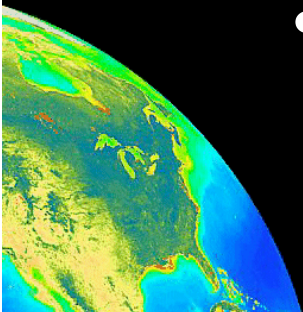
MODIS Oceans Science Team Meeting
October 31-November 2, 2006



OBPG Data Set & Mission Support Activities

- SeaWiFS
- MODIS/Aqua: Ocean Color & SST*
- MODIS/Terra: Ocean Color & SST*
- NPP/VIIRS: Ocean Color & SST*
- Aquarius*
- Historical data
 - CZCS
 - OCTS
- Glory (data system development only)
- Future mission concept development
 - OCEaNS (Ocean Carbon, Ecosystems, and Near Shore mission)

* Primarily data processing
& distribution



Activities Since Last MODIS Science Team Mtg.

- MODIS HiRes module released in SeaDAS
 - Bryan Franz presentation @ 2:00 plenary
- Chesapeake Bay demonstration study initiated in collaboration with CB Program
 - Emphasis on chlorophyll products
 - Poster by Kwaitkowska et al.
 - Incorporates AERONET data for satellite product quality evaluation
- NO₂ absorption correction algorithm completed
 - Currently working on a GOME, Sciamachy, OMI time series for 1997-present



Activities Since Last MODIS Science Team Mtg.

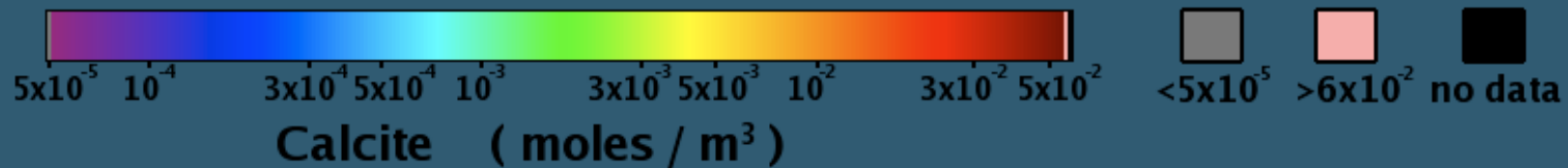
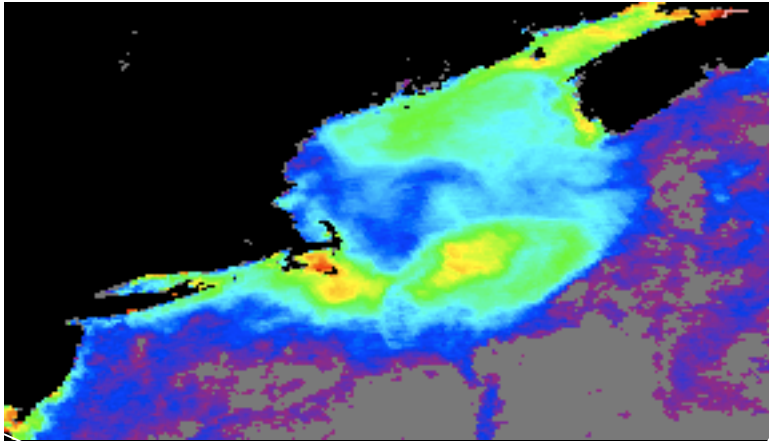
(continued)

- Reprocessed CZCS and OCTS data sets
 - CZCS @ full resolution (800 m)
 - OCTS @ 4 km resolution
 - Details to be presented in Oceans Breakout tomorrow
- Supported VIIRS EDU testing & data analysis
 - Esaias presentation in Oceans Breakout this afternoon
- Began analysis of MODIS/Terra for ocean color
 - Initial focus on most recent 2 years and forward data stream
- Initiated Calcite & Fluorescence Line Height evaluation product generation



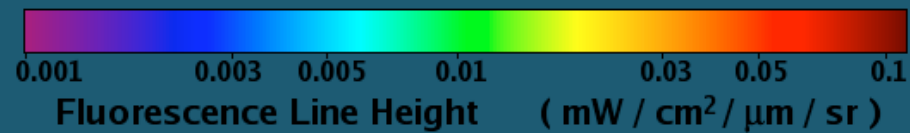
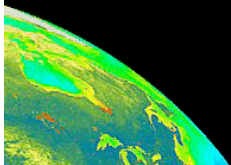
Evaluation Products

Calcite - Summer 2005



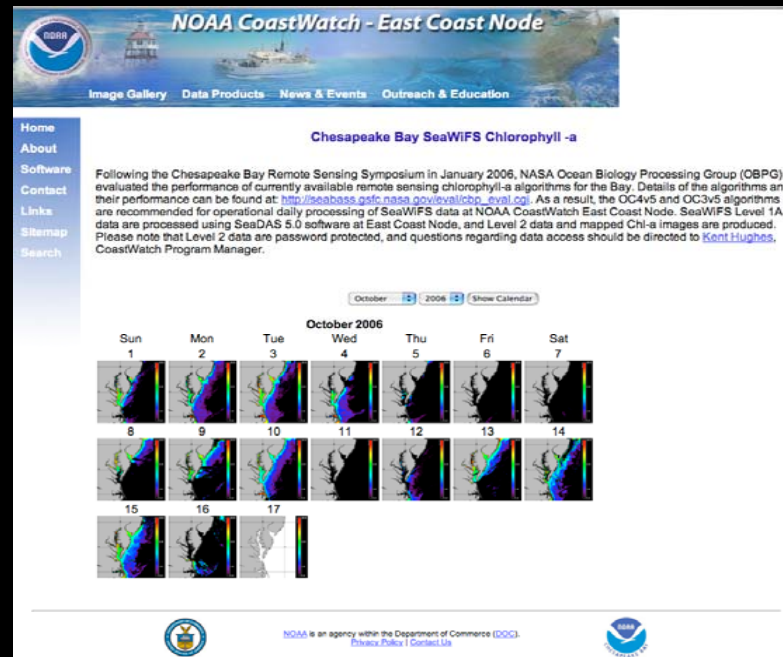
Evaluation Products

FLH - Summer 2005



SeaWiFS Update

- Global data acquisition, processing, calibration, & distribution continue
- Access to US Coastal LAC via NOAA/Geoeye Contract



Issues:

Node Drift and as yet unresolved improved temperature correction

Recently switched to back-up GPS receiver

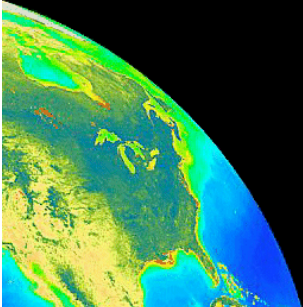
Occasional momentum wheel anomalies - have backup momentum wheel

Battery Charge Regulator - currently running on secondary

MODIS Terra & Aqua Data

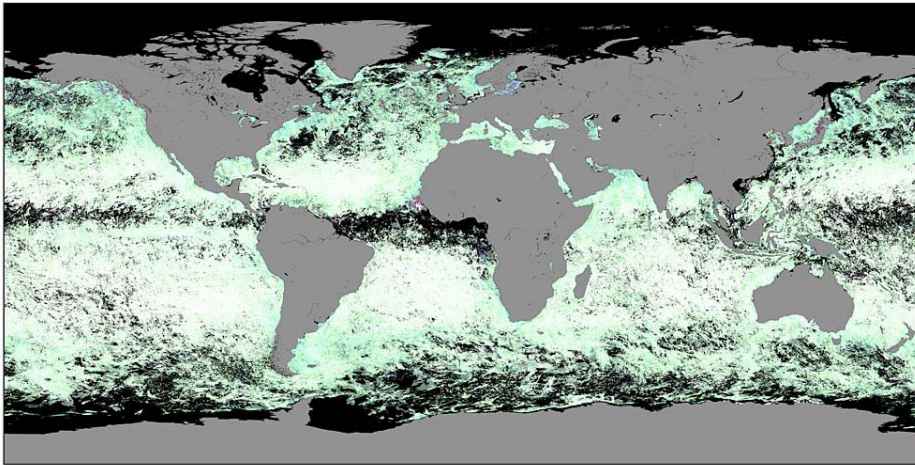
OBPG on-line archive

- Terra
 - Level-1 data for standard OC & SST processing
 - January 2005 – present
 - Level-0 (all bands: supports HiRes processing)
 - August 2006 – present
- Aqua
 - Level-1 data for standard OC & SST processing & Level-0 (all bands: supports HiRes processing)
 - July 2002 – present

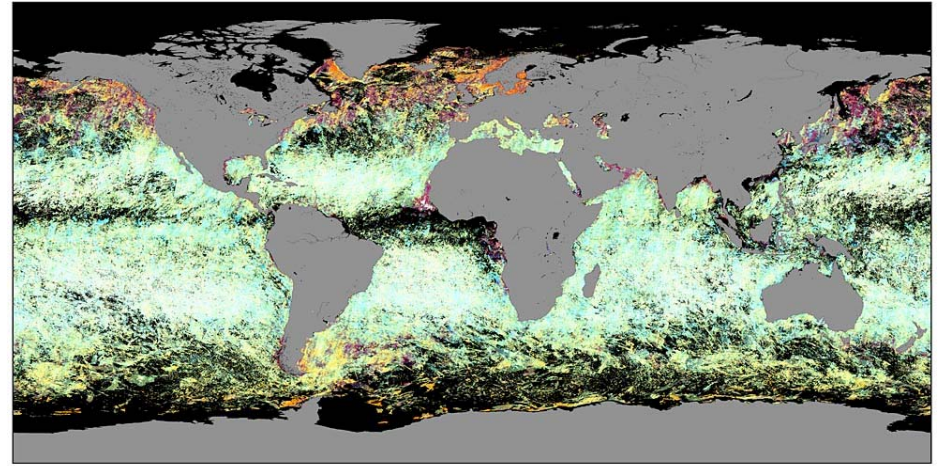


Aqua & Terra Mirror Side Differences: March 2005

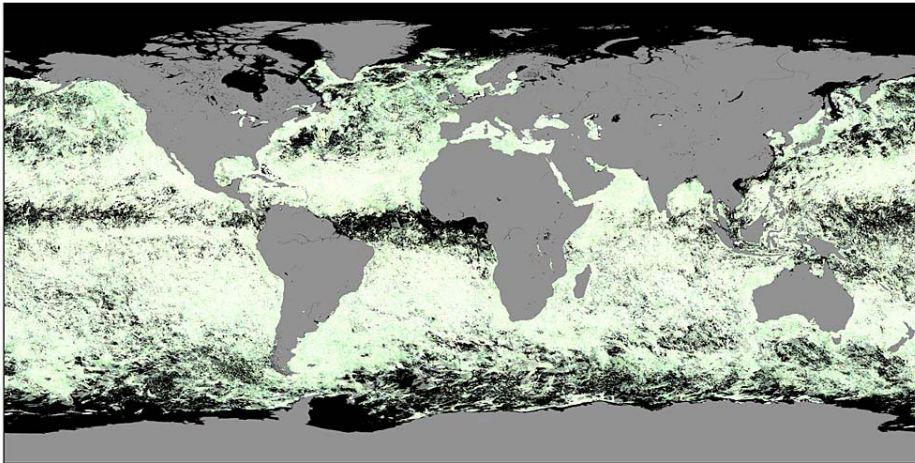
Aqua MODIS Mirror-Side Differences for the March 2005 Composite of Normalized Water-Leaving Radiance at 412 nm



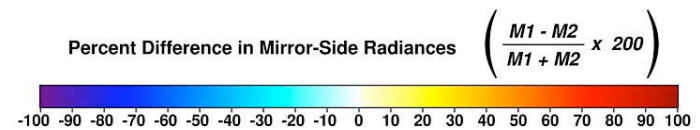
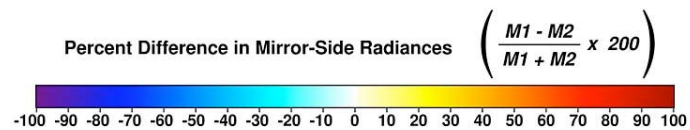
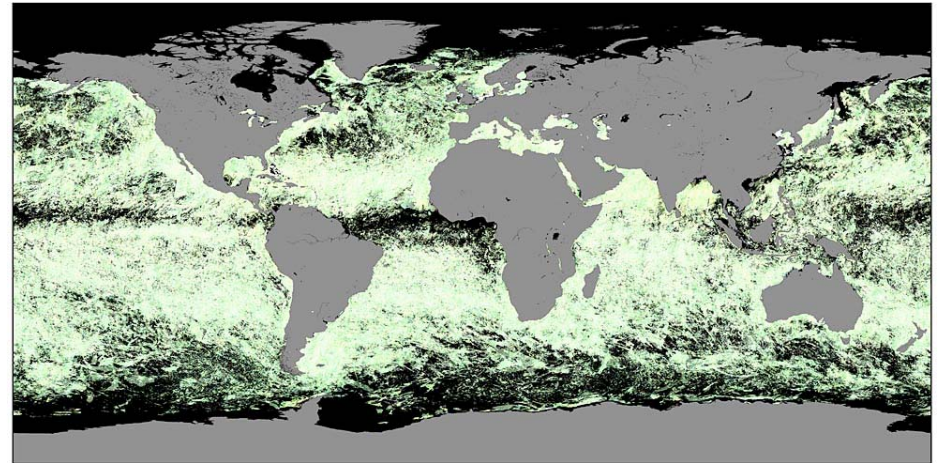
Terra MODIS Mirror-Side Differences for the March 2005 Composite of Normalized Water-Leaving Radiance at 412 nm



Aqua MODIS Mirror-Side Differences for the March 2005 Composite of Normalized Water-Leaving Radiance at 551 nm



Terra MODIS Mirror-Side Differences for the March 2005 Composite of Normalized Water-Leaving Radiance at 551 nm



Data Access and Community Support

- OceanColor Web (<http://oceancolor.gsfc.nasa.gov/>)

Consolidated data access, information and services.

- SeaDAS enhancement

Full SeaWiFS/MODIS ocean processing support starting with level-0 (direct broadcast users), Mac OSX support, new webpage with online installation option, full MODIS high-res support, automatic msl12 MET/OZONE/OISST search and retrieval functions, Intel Mac OS X port completed (plan to release it this week)

- Research campaign support

Global ocean color and sst data available for distribution within 3-4 hours of acquisition by the spacecraft.

- Web/FTP-based data access and distribution

web/ftp-based browse, order, subscription and extract tool that allows everything from a single file to the entire multi-mission data set to be downloaded.

Detailed presentation by Gene Feldman on Thursday



GSFC Ocean Biology Processing Group: Future OC & SST Activities

- MODIS/TERRA Ocean Color evaluations and processing
- Aerosol Model Revision/Update
- Evaluation of MODIS cloud mask (collaboration with U. Wisconsin)
- SeaWiFS Temperature Correction Refinement
- Re-evaluation of standard product suite and alternate binning methodologies
- Ingest Terra Level-0 source data archive to allow for transition from MODAPS
- Prepare for SeaWiFS & Aqua MODIS reprocessings (possibly Spring 2007)

