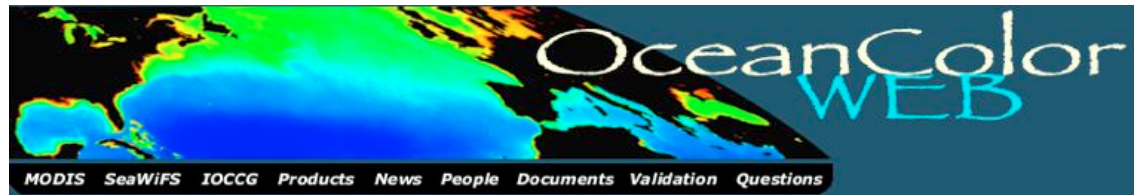




Field Program Support



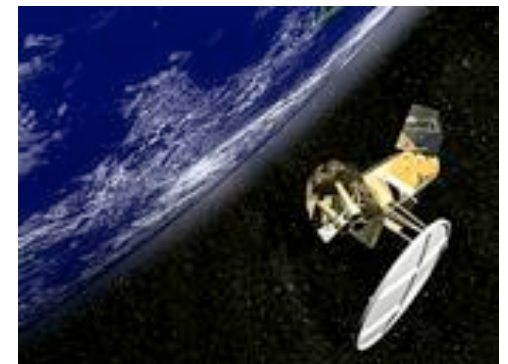
[oceancolor.gsfc.nasa.gov](http://oceancolor.gsfc.nasa.gov)

# Ocean Ecology Branch Overview GSFC/Code 614.2

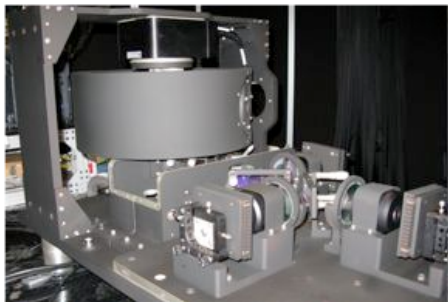
MODIS Team Meeting  
May 18, 2011



OSPREy



Aquarius



ORCA

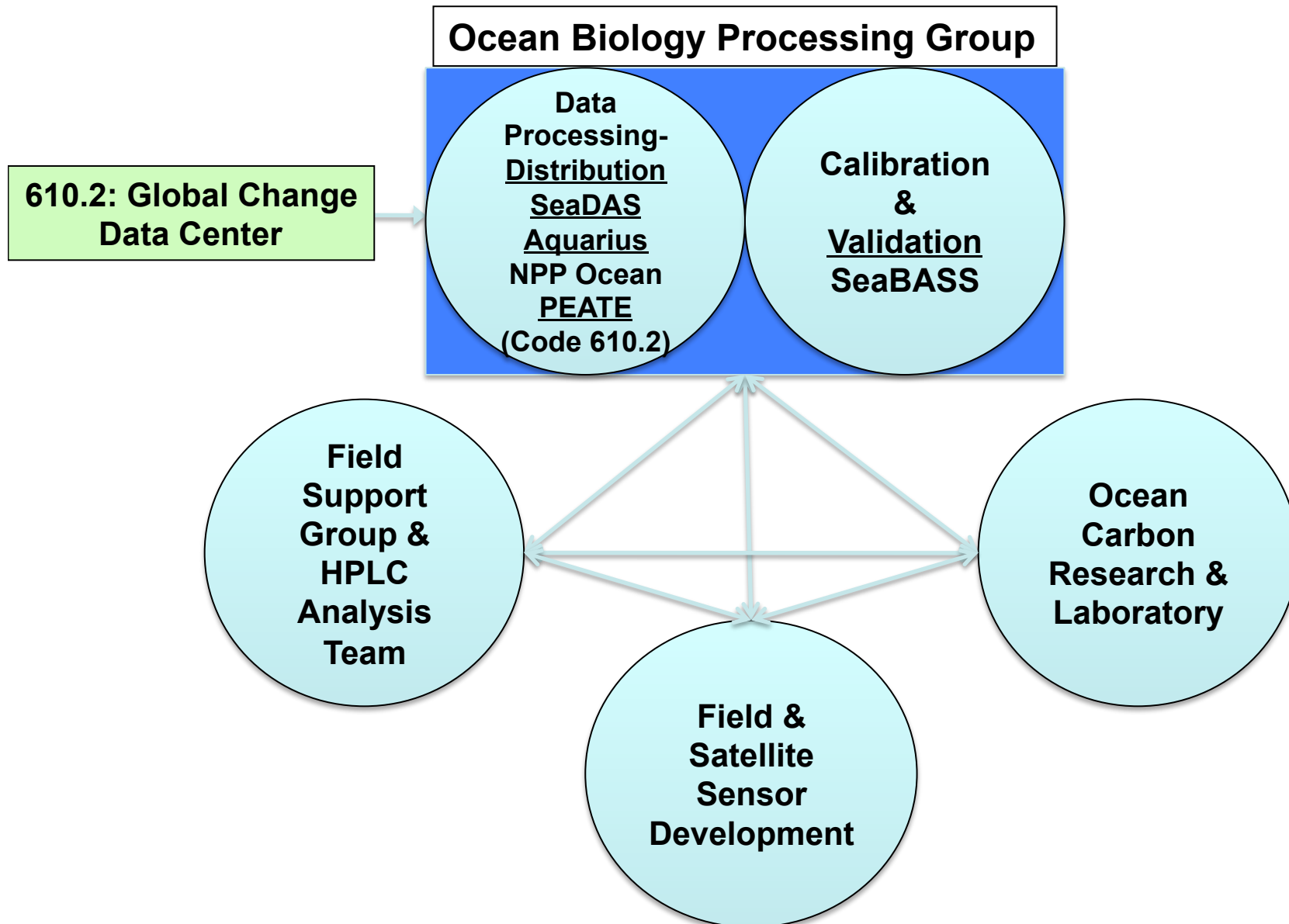
Chuck McClain  
Branch Head



SeaWiFS

Branch Website - <https://neptune.gsfc.nasa.gov/osb/index.php?section=115>

# Ocean Ecology Branch Organization



# Ocean Ecology Branch Staffing

## OBPG

- **Data Processing/Distribution, SeaDAS, NPP Ocean PEATE, Aquarius**
  - **Civil Service (610.2 matrixed to 614.2): Gene Feldman, Norm Kuring**
  - **Contract:** Sean Bailey, Matt Elliott, Gwyn Fireman, Joel Gales, Liang Hong\*, Susie Kennison\*, Dan Knowles, Jeff Lentz, Chris Moellers, Fred Patt, Alicia Scott\*, Don Shea, Paul Smith, Muriel Taylor, John Wilding, Bill Woodford
- \* Aquarius staff
- **Calibration & Validation**
  - **Civil Service: Bryan Franz, Gerhard Meister**
  - **Contract:** Zia Ahmad, Bob Barnes, Gene Eplee, Wayne Robinson, **Kevin Turpie** (VIIRS Ocean Support Team)

## Field & Laboratory Data

- **Field Support Group:** Joaquin Chavez, Scott Freeman, Karen Mitchell, Aimee Neeley, **Jeremy Werdell**
- **Community HPLC Analyses: Crystal Thomas**

## Ocean Carbon Research

- **Coastal Ocean:**
  - Civil Service: **Antonio Mannino**
  - Contract: Mike Novak
  - Post-docs: Veronica Lance, Dirk Aurin
- **Open Ocean:**
  - Contract: **Sergio Signorini**

## Sensor Development

- **Field (OSPRey, C-OPTS)**
  - Civil Service: **Stan Hooker**
- **Satellite (ORCA)**
  - Civil Service: **Chuck McClain**
  - Contract: Alan Holmes (consultant)

7 CS, 30 on-site contractors, 2 post-docs  
Activity leads in **bold**.  
Most staff involved in more than one activity.

NASA Goddard Space Flight Center

## Ocean Ecology Branch, Code 614.2

- **Ocean Color (OC)**

- SST from MODIS
- Salinity from Aquarius

- **Ocean Color activities**

- Optical & biogeochemical field & laboratory measurements
- Field optical instrument development
- Sensor calibration/characterization
- Processing software & algorithms
- Bio-optical algorithms
- Data ingest and processing
  - 1.3 Petabytes on line storage
- Data archive and distribution
- Product validation (SeaBASS)
- User processing and display (SeaDAS)
- User support (OC Forum)

- **Ocean Biology & Biogeochemistry Research**

- Subpolar North Atlantic carbon budget
- US east coast continental shelf carbon budget

### OC Data Processing & Mission Support

MODIS/Aqua: 2002-present

MODIS/Terra: 1999-present

SeaWiFS/Orbview-2: 1997-2011

CZCS/NIMBUS-7: 1978-1986

OCM-2/Oceansat-2: 2010-present (ISRO)

MERIS/Envisat: 2002-present (ESA)

MERIS quality working group

OCTS/ADEOS: 1996-1997 (JAXA)

MOS/IRS-P3: 1996-2004 (DLR)

VIIRS/NPP: NASA Ocean Science Team lead

NASA-NOAA ocean color working group

New Sensor Development: ORCA

ACE ocean working group lead

GeoCAPE ocean working group lead

# Activities – CY2011

- Aquarius mission support: Launch in June 2011
- NPP mission support (product evaluation and ocean team leadership): Launch October 2011
- MODIS SST & OC data production & data quality assessment and ocean team leadership
- Field & laboratory program support:
  - move group back to GSFC from off-site
  - lab refurbishment/upgrade
  - migration of HPLC pigment processing from UMD/HPEL to GSFC
- Field instrument development, e.g., OSPREy & C-OPTS, for future mission support
- Development of ORCA (Ocean Radiometer for Carbon Assessment) for the PACE and ACE missions
- PACE, ACE, and GeoCAPE mission formulations
  - Ocean team leadership
  - Preparation of an ORCA flight instrument proposal for PACE
  - Preparation of a GSFC mission management proposal for PACE (TBD)
- Ocean field program participation
  - CLIVAR (Antarctica): Feb-April 2011
  - ICESCAPE-2 (Arctic): June-July 2011
  - GeoCAPE Chesapeake Bay study, August 2011
  - Japanese North Pacific Gyre transect, Fall 2011
- Ocean ecology & biogeochemistry research
  - North Atlantic & coastal US studies to continue (recent ROSES proposal selections)

<https://neptune.gsfc.nasa.gov/osb/index.php?section=115>