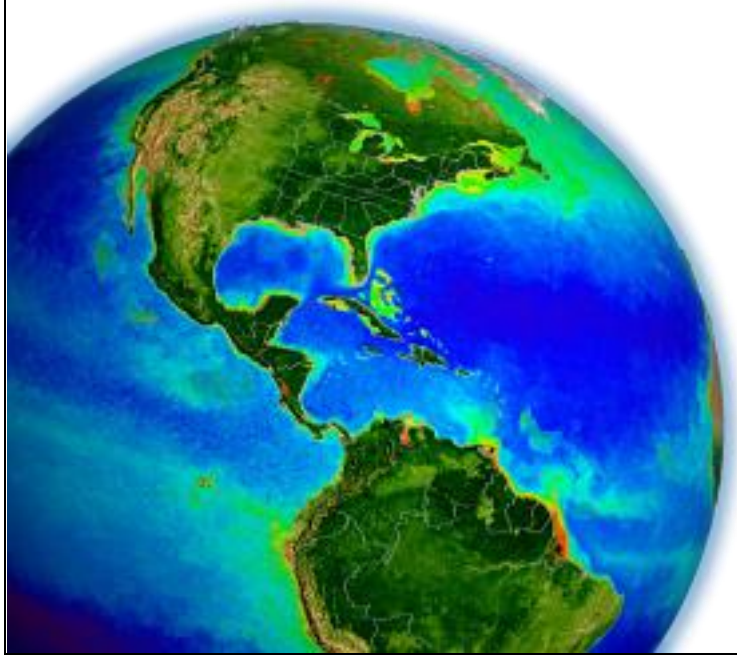
HICO™ Data at the OB.DAAC



Sean Bailey

NASA Goddard Space Flight Center

07 May 2014

HICO Users Team Meeting

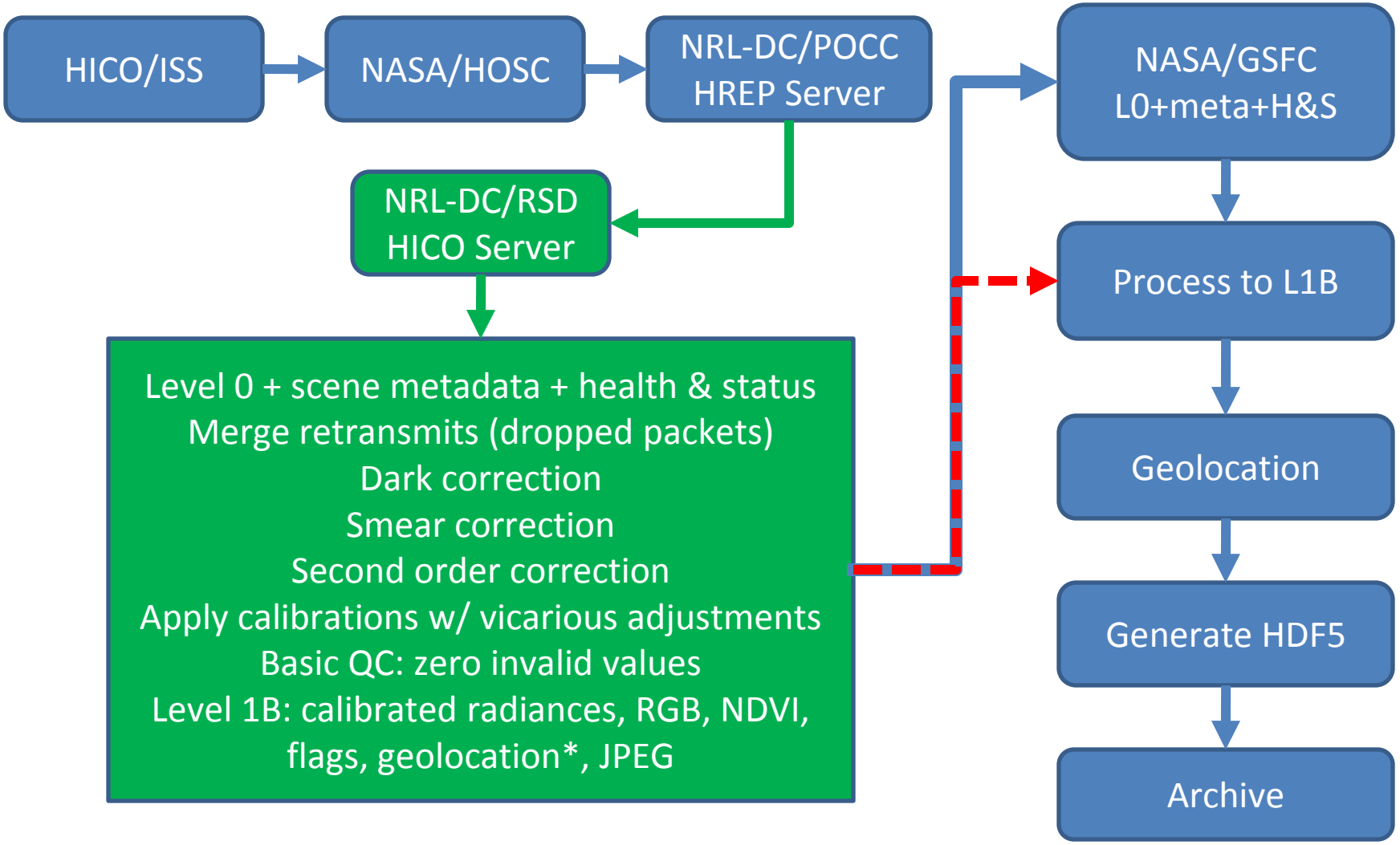
The OBPG

- Ocean Biology Processing Group provides support for Ocean Color, Sea Surface Temperature and Sea Surface Salinity
  - Primary focus is on Ocean Color
    - Sensor calibration/characterization
    - Data processing
    - Product validation
    - Algorithm development
    - User processing and visualization
    - User support
- OBPG will eventually provide the full range of support to HICO™

NASA Archives HICO

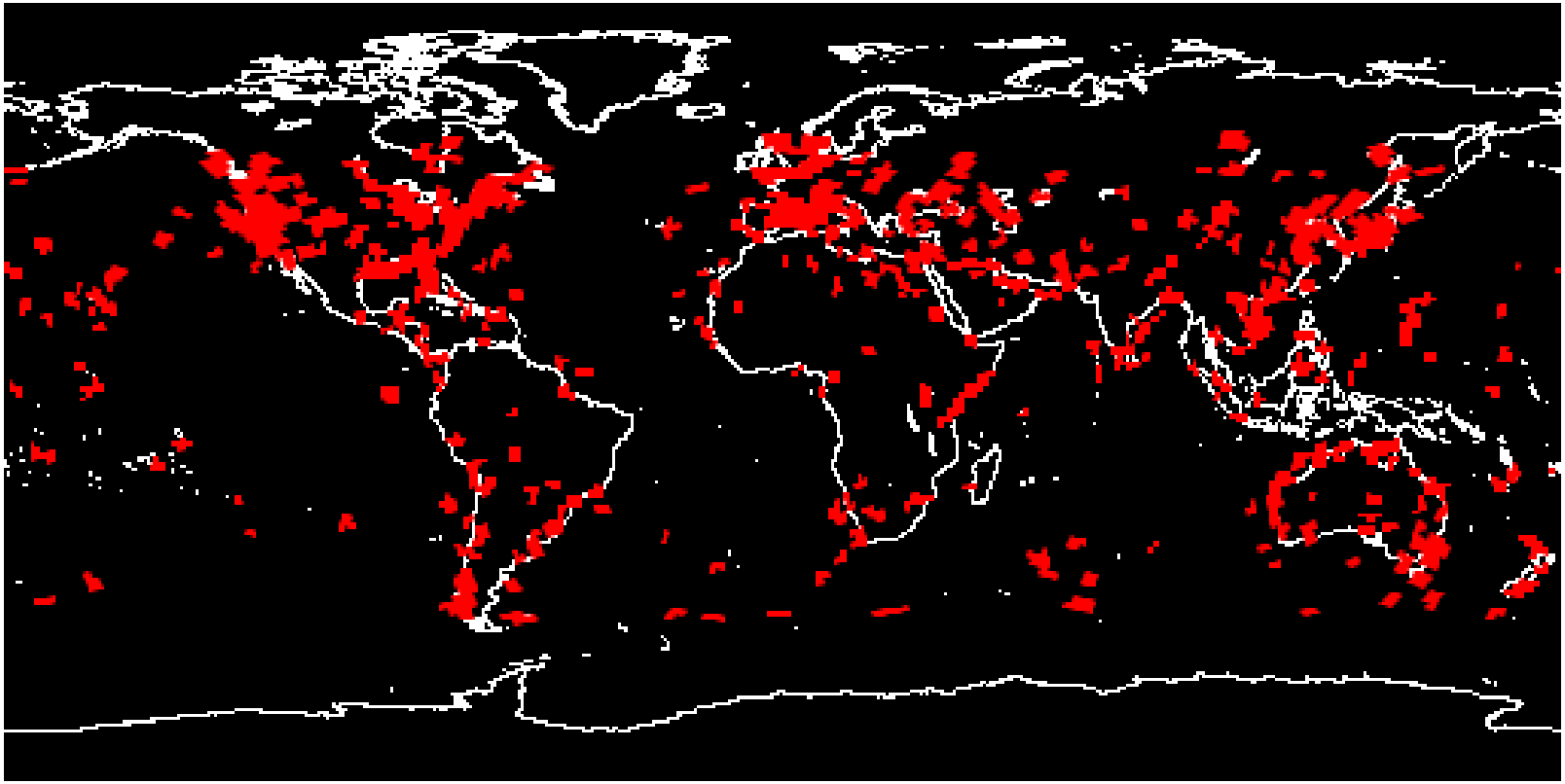
- January 2013
  - NASA began funding continued collection and processing of HICO data
  - The OB.DAAC was identified as the appropriate archive for the data
  - The OB.DAAC and NRL-DC began a collaboration for the automated data transfer
- April 2013
  - HICO support added to SeaDAS
- June 2013
  - ONR approved the release of the historical HICO data to NASA

The Flow of Data



A refined processing is initiated when NRL-DC provides an updated ISS time offset

HICO™ Data Holdings - OB.DAAC



- Over 8100 HICO scenes acquired since 15 October 2009 are currently archived and available
- New files received and available within 3 days of acquisition*

*a 2 day embargo is imposed on the data prior to distribution by NRL-DC to OB.DAAC

HICO™ Data Access

The entire HICO™ data collection provided to NASA is available publicly to users registered with the Earth Observing System Data Information System User Registration Service*

https://earthdata.nasa.gov/urs/register

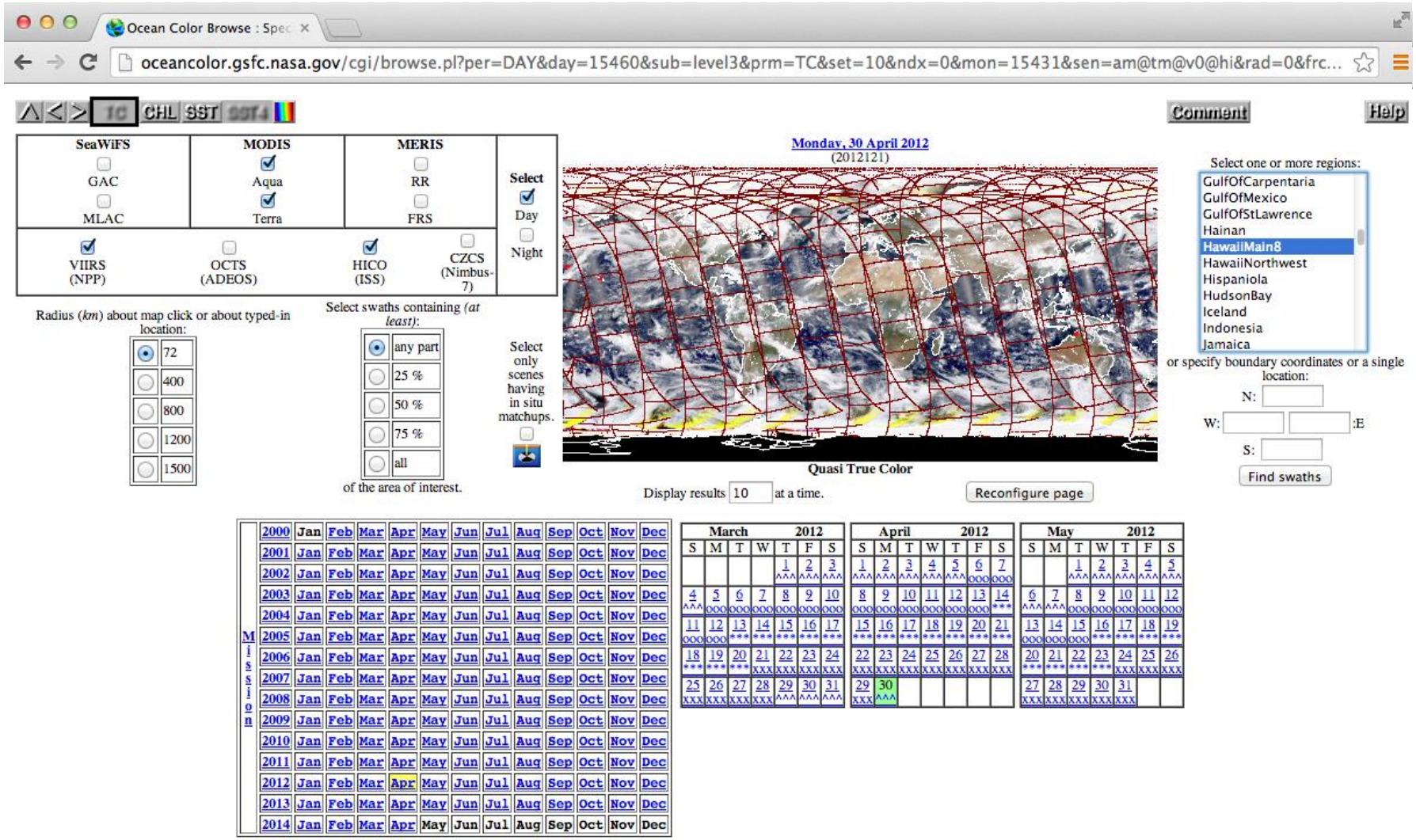
http://oceancolor.gsfc.nasa.gov/SUPPORT/register.html

*URS is separate from the OceanColor Web registration

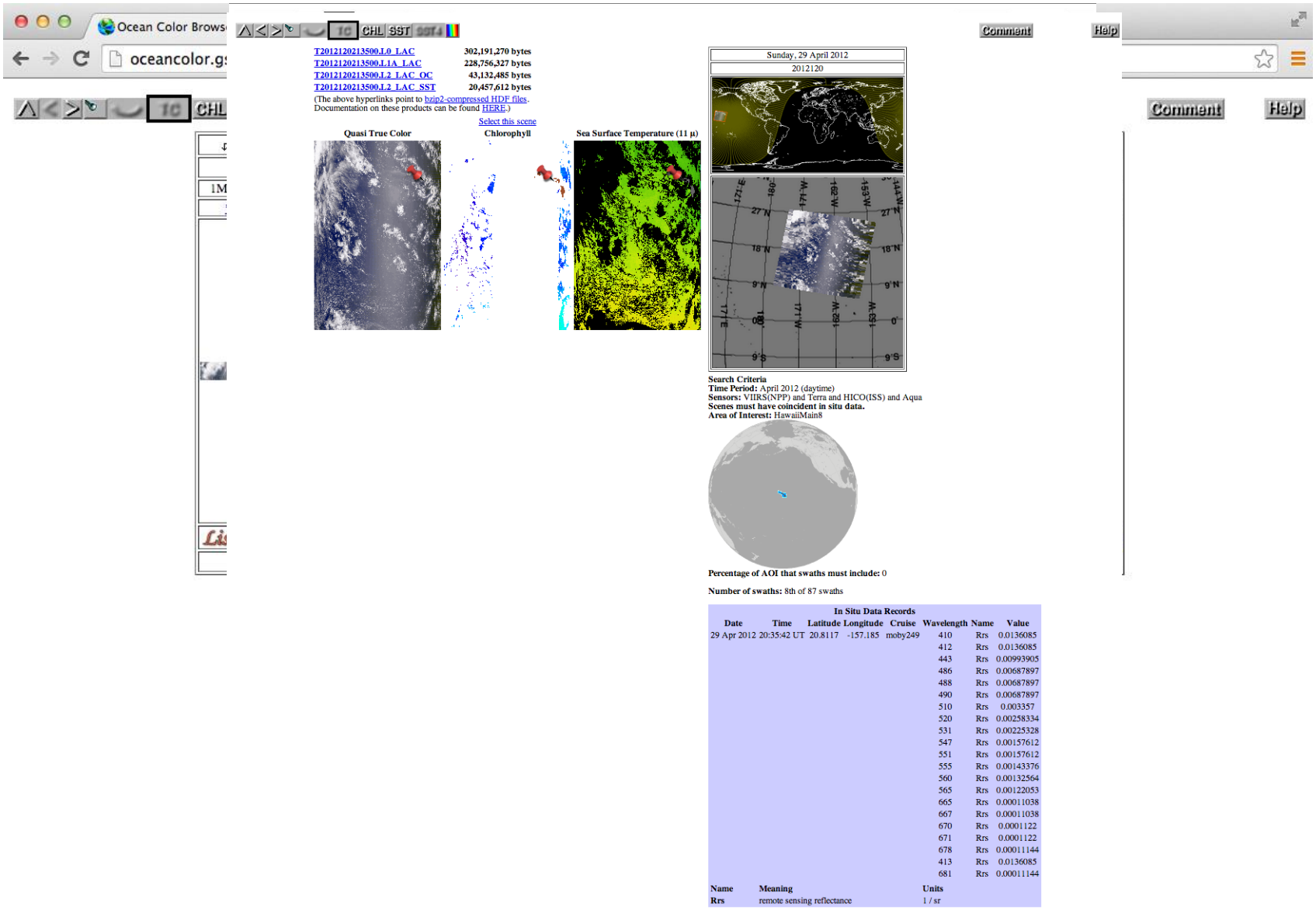
HICO™ Data Distribution

- Initial effort began in Feb 2013
- Full access began in July 2013
  - 4375 HICO scenes distributed as of Feb 2014
  - 25 countries
  - 199 users*

OceanColor Web Visual Browser



OceanColor Web Visual Browser



OceanColor Web Visual Browser

Ocean Color Browse : Orde

oceancolor.gsfc.nasa.gov/cgi/browse.pl

Comment Help

You are about to order the following 87 files from the Ocean Color Data Processing System.

Since you did not request extraction or parameter subsetting, or since those services were denied for this order (because it contains Level-0 data or HICO data), when you click 'Submit order' you will recieve a listing of file URLs which you may download immediately.

You may wish to save the next page as a text file and use it as input to a web downloading program (e.g. wget, cURL)

V2012122002724.L1A_NPP.tar	A2012116233000.L1A_LAC	T2012108211000.L1A_LAC	V2012101002047.L1A_NPP.tar	T2012096204500.L1A_LAC
A2012121234500.L1A_LAC	V2012116224001.L1A_NPP.tar	V2012107234919.L1A_NPP.tar	A2012100233000.L1A_LAC	V2012096001424.L1A_NPP.tar
V2012121224624.L1A_NPP.tar	A2012116002500.L1A_LAC	A2012107233500.L1A_LAC	V2012100224112.L1A_NPP.tar	A2012095231000.L1A_LAC
H2012121205112.L1B_ISS	V2012115225856.L1A_NPP.tar	T2012107202500.L1A_LAC	V2012100223947.L1A_NPP.tar	T2012095214000.L1A_LAC
T2012121204000.L1A_LAC	T2012115211500.L1A_LAC	V2012106002710.L1A_NPP.tar	T2012100202000.L1A_LAC	A2012095000500.L1A_LAC
V2012120230519.L1A_NPP.tar	V2012113233647.L1A_NPP.tar	A2012105234500.L1A_LAC	A2012100002500.L1A_LAC	V2012094225344.L1A_NPP.tar
A2012120230500.L1A_LAC	T2012113212500.L1A_LAC	V2012105224735.L1A_NPP.tar	V2012099230007.L1A_NPP.tar	V2012094225219.L1A_NPP.tar
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A2012120000000.L1A_LAC	A2012112235500.L1A_LAC	A2012104000000.L1A_LAC	T2012099211500.L1A_LAC	A2012093232500.L1A_LAC
V2012119232415.L1A_NPP.tar	T2012112204500.L1A_LAC	V2012103232401.L1A_NPP.tar	A2012098234000.L1A_LAC	A2012093232000.L1A_LAC
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A2012118231500.L1A_LAC	T2012111214000.L1A_LAC	A2012102231500.L1A_LAC	T2012098203000.L1A_LAC	A2012093002000.L1A_LAC
T2012118214500.L1A_LAC	A2012109232500.L1A_LAC	T2012102214500.L1A_LAC	V2012097233633.L1A_NPP.tar	A2012093001500.L1A_LAC
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V2012118000205.L1A_NPP.tar	T2012109215000.L1A_LAC	V2012102000151.L1A_NPP.tar	V2012096235528.L1A_NPP.tar	V2012092233010.L1A_NPP.tar
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V2012117002101.L1A_NPP.tar	V2012108233024.L1A_NPP.tar			

The total volume of the above files *(in the compressed form in which they are stored in our archive)* is **22,001,481,870** bytes.

Submit order

OceanColor WEB

Require my email confirmation for early file deletion.

Notify me when my data have been deleted from the staging area.

Review order

HICO™ Data in SeaDAS

- SeaDAS support for HICO data includes:
  - Display and analysis
  - Processing
    - Current Level-2 code does not support the full hyper-spectral resolution of HICO
    - HICO data are treated as a 15-band multi-spectral instrument with a band set based on that of the MERIS instrument.
- Extensive radiative transfer simulations have already been carried-out to produce the HICO-specific hyperspectral aerosol and Rayleigh tables needed for atmospheric correction which will be required for hyper-spectral processing.
- We believe that the steps that we have taken will enable the much broader ocean color research community to use a familiar tool (SeaDAS) for generation, display, and analysis of ocean color products from HICO.