# New and Upcoming Tools and Products from PO.DAAC

Jessica.K.Hausman@jpl.nasa.gov
Jet Propulsion Laboratory/Caltech/NASA

NASA's Physical Oceanography Distributed Active Archive Center (PO.DAAC) is the archive and distribution center for Earth science and oceanographic NASA missions covering ocean surface topography, sea surface temperature, gravity, ocean currents and circulation, ocean winds and salinity. PO.DAAC has several new products this year, such as **MEaSURES Integrated Multi-Mission Radar Altimeter Data for Climate Research** and PI provided **Gridded Altimeter Fields with Enhanced Coastal Coverage** and **Retrospective Sea Level** products.

The broad variety of available data products has expanded PO.DAAC's user base beyond scientific experts. To make these data sets more accessible PO.DAAC has a **New web portal with faceted browse, State of the oceans – Near Real Time data on Google Earth interface** and **Dataminer – Level 2/swath search and subsetter**.

New Products

Integrated Multi-Mission Radar Altimeter Data for Climate Research
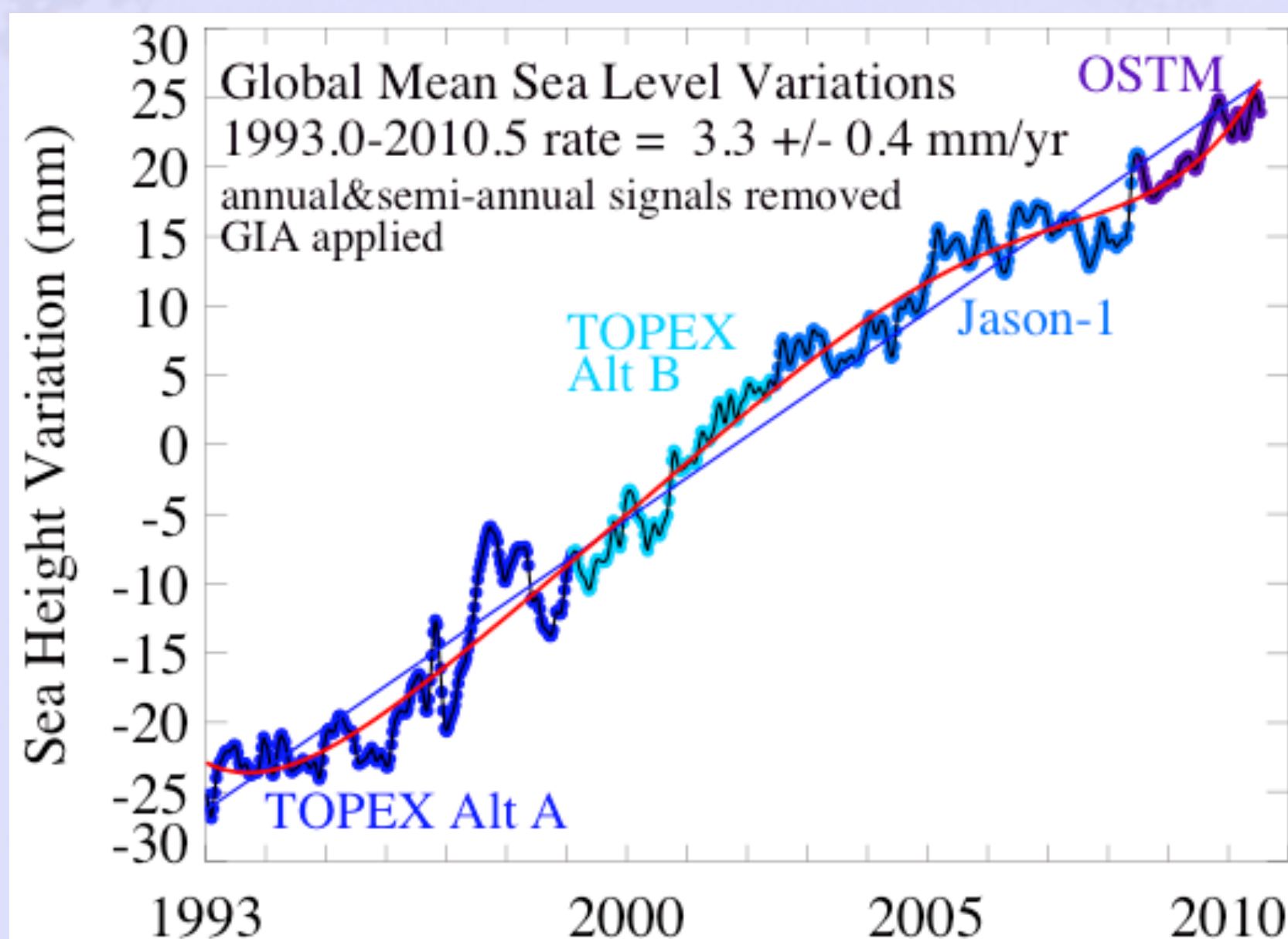
Parameter: Cross-calibrated SSHA from TOPEX/Poseidon, Jason-1 and OSTM/Jason-2
Spatial: Along-track gridded, global
Temporal: September 1992 to mid 2010, available by cycles, updated annually
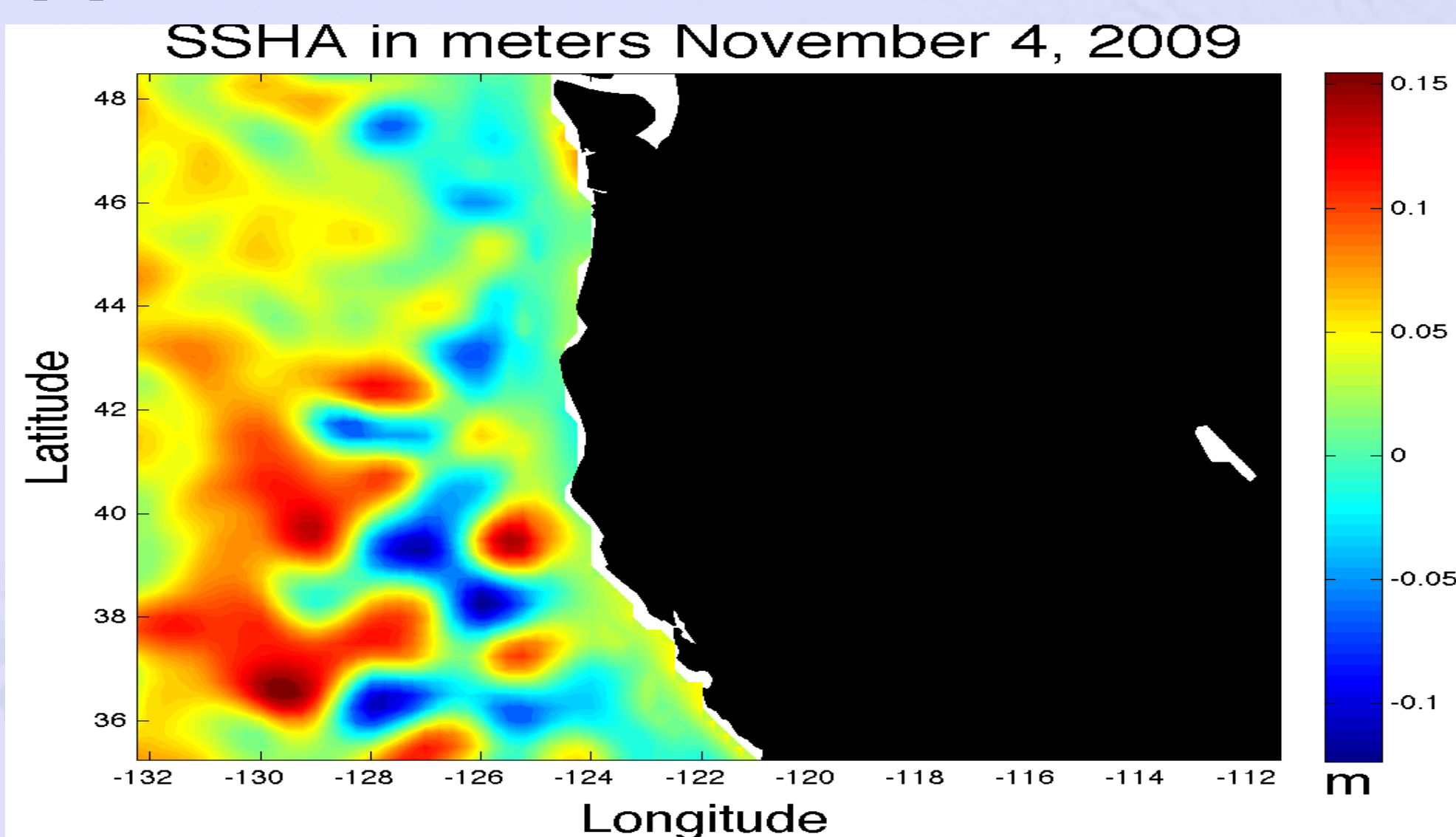*Provider*: MEaSURES

Gridded Altimeter Fields with Enhanced Coastal Coverage

Parameter: U, V and SSHA from radar altimeters and tide gauges 0.75° next to the coast[1]

Spatial: 1/4° grid, US west coast
Temporal: Oct 1992-Nov 2009, 7 day res, updated annually
Provider: Oregon State University/ Cooperative Institute for Oceanographic Satellite Studies

Reconstructed Sea Level (Early 2011)

Parameter: Sea level anomalies from tide gauges extrapolated by a basis function from cyclostationary EOFs performed on altimetric data [2]
Spatial: 1/2° grid, global
Temporal: 1950-2009, 7 day res, updated annually
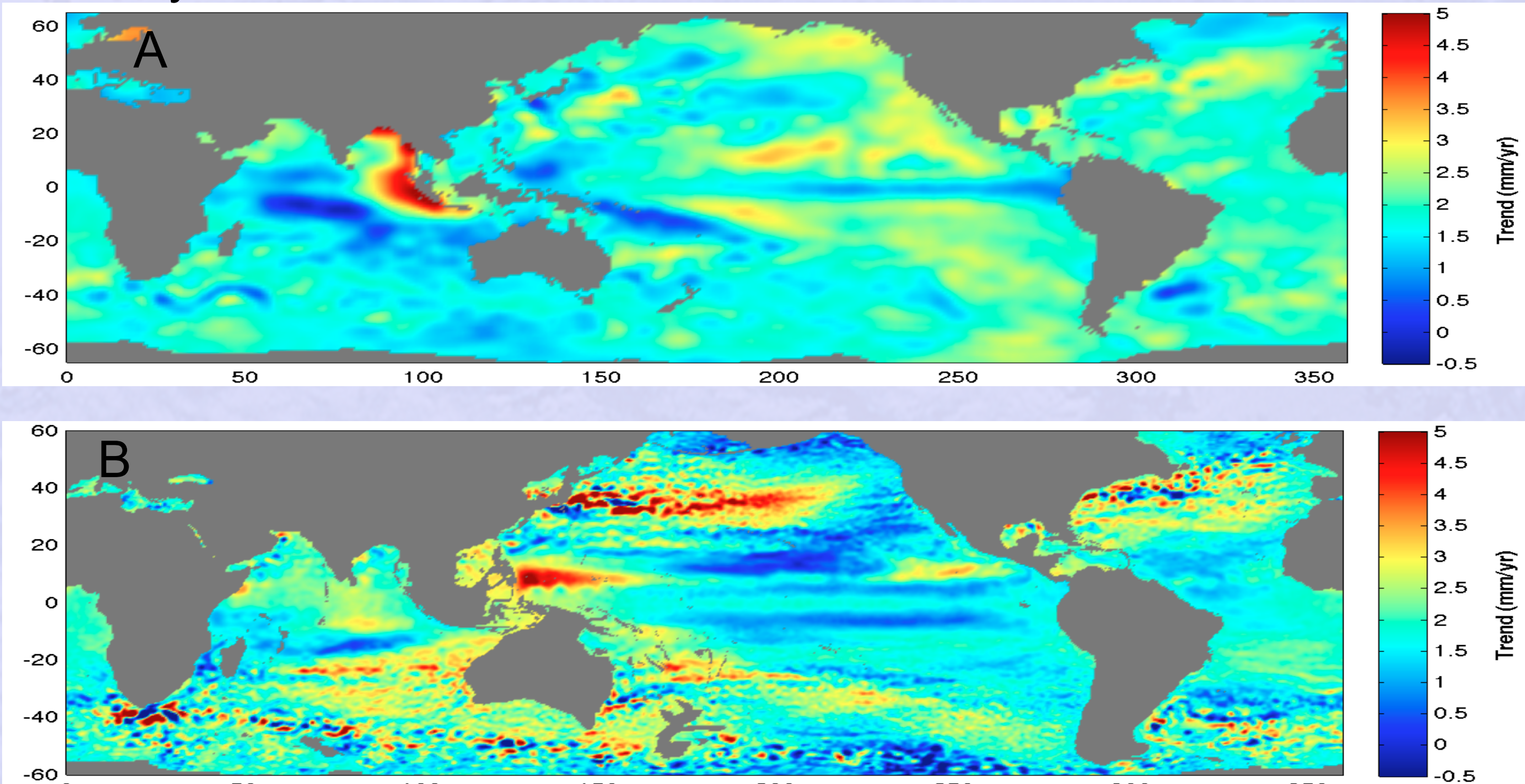*Provider*: University of Colorado Boulder/ Colorado Center for Astrodynamics Research

Fig. A. Church et al. (2004)[3] sea level reconstruction 1950-2001 using EOFs as basis functions. Fig. B. CSEOF reconstruction of sea level reconstruction, which differs greatly from fig. A.
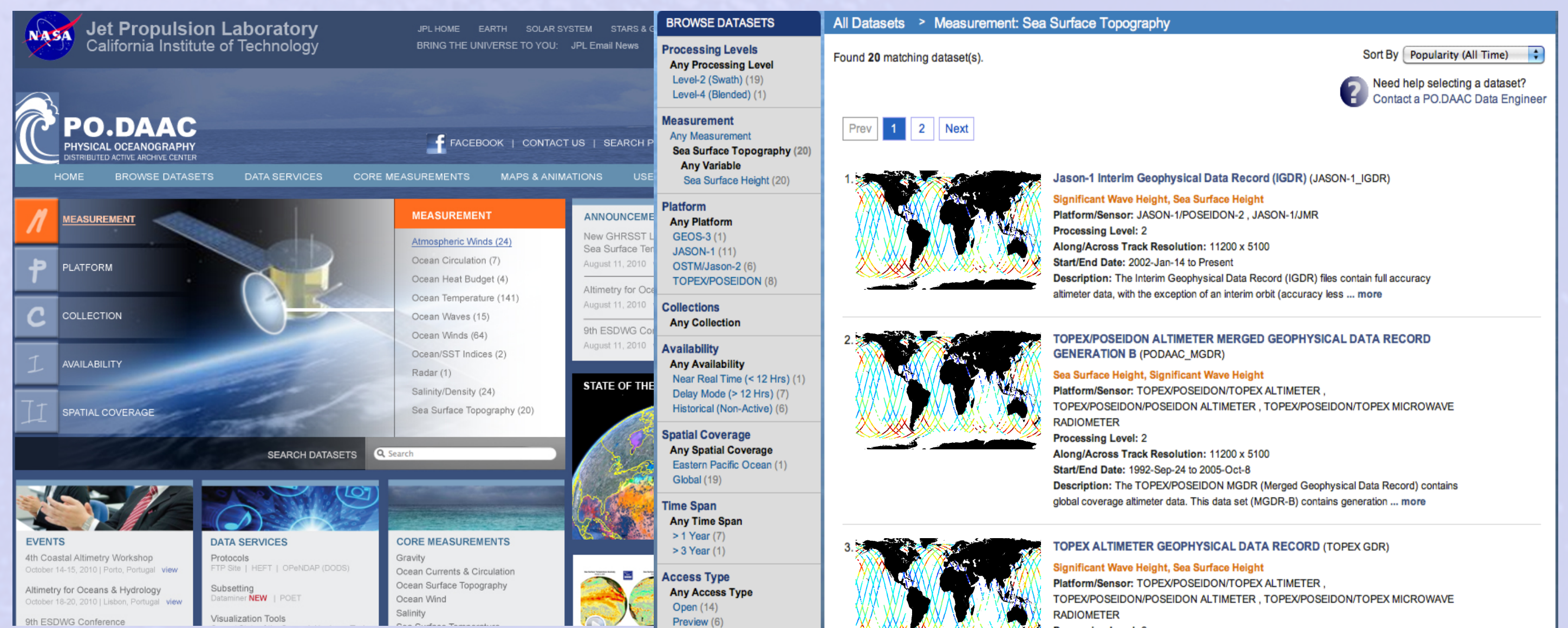
Also…
New Retracked TOPEX/Poseidon GDR and enhanced JMR. Please email contact above for access to these products.

New Tools and Services

New Web Portal and Faceted Browse   (podaac-beta.jpl.nasa.gov)
Provides more intuitive layout and help find datasets with 3-5 clicks.
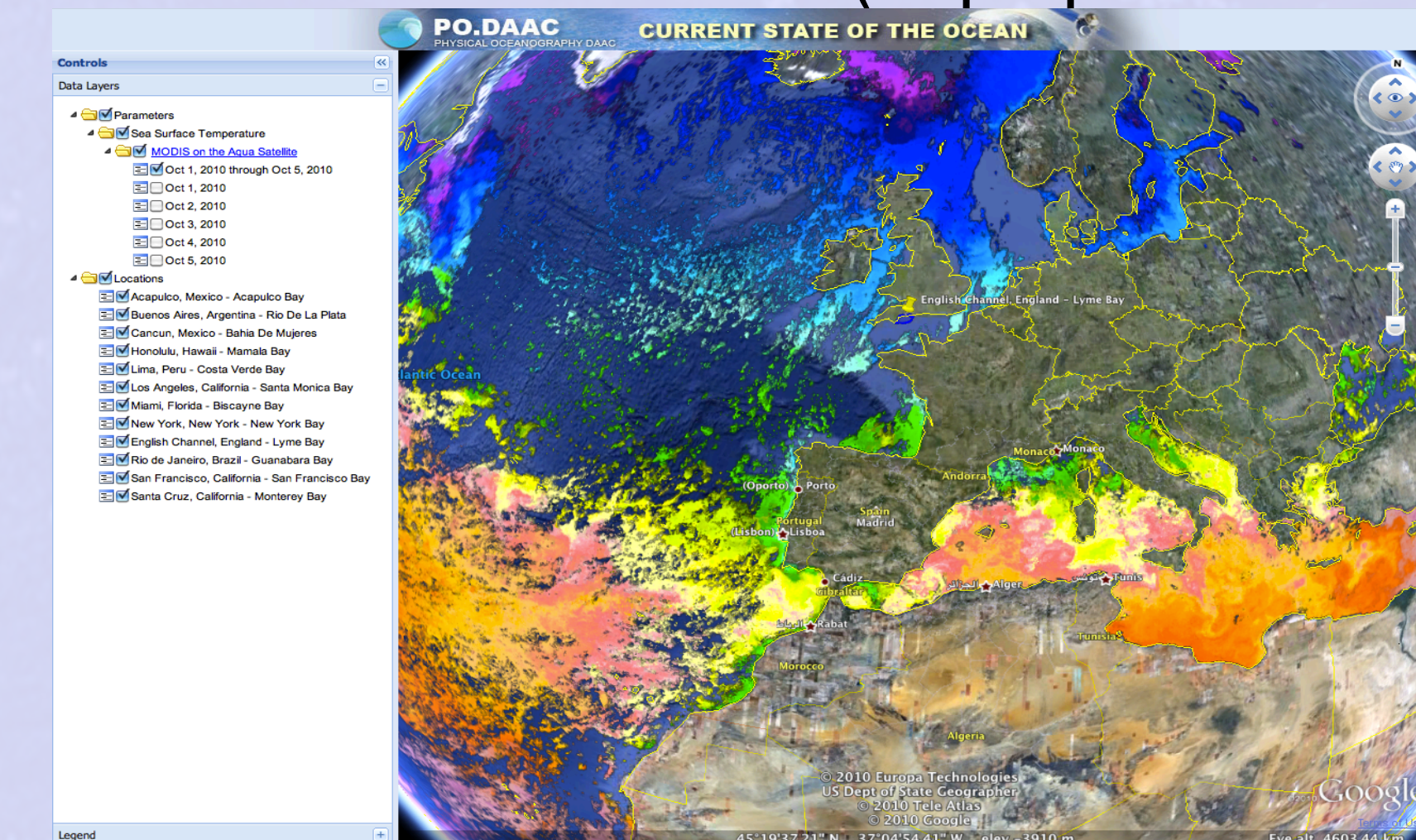

Dataminer   (http://podaac-tools.jpl.nasa.gov/dataminer/)
Search and subset L2/swath historical data sets, such as OSTM, in space, time and statistical properties. Altimetry data will be available by the end of the year.

State of the Oceans   (http://podaac-tools.jpl.nasa.gov/dataviewer/)
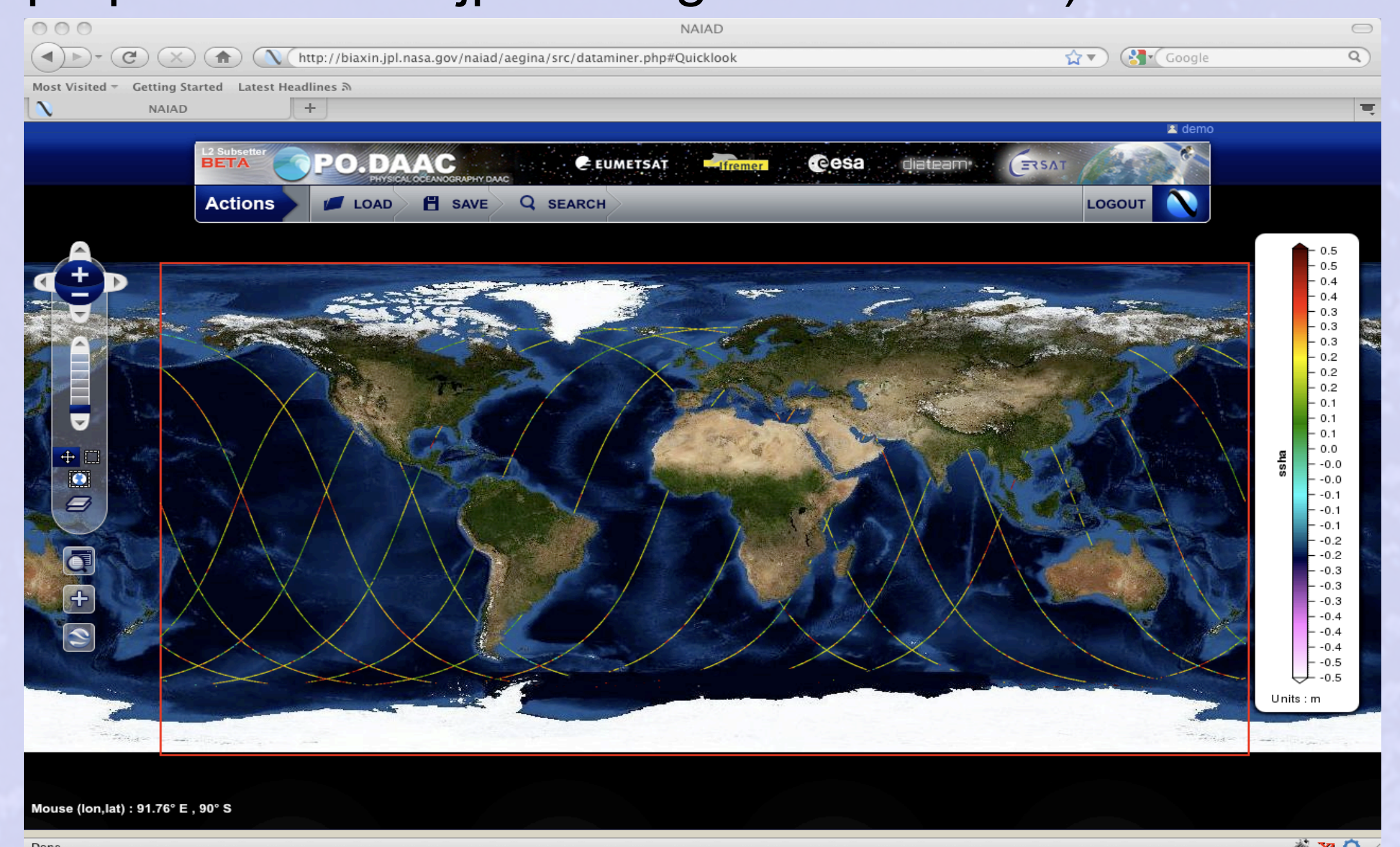
Google Earth interface to visualize present data. Altimetry data will be available by the end of the year, along with wind data.

Altimeter Service
The altimeter service developed by Phil Callahan et al. will be available at PO.DAAC early 2011. For more information please see poster 176 **WEB-BASED ALTIMETER SERVICE**

Data Access (http://podaac-tools.jpl.nasa.gov/)
◆FTP   ◆OPeNDAP   ◆Tools and Services

References
[1] Saraceno, M., P.T. Strub, and P.M. Kosro, Estimates of sea surface height and near-surface alongshore coastal currents from combinations of altimeters and tide gauges, J. Geophys. Res., 113, C11013, 2008.

[2] B.D. Hamlington, R.R. Leben, R.S. Nerem. K.-Y. Kim, New method for reconstructing sea level from tide gauges using satellite altimetry, IGARSS, Honolulu, HI, July 2010.

[3] Church, N.J. White, R. Coleman, K. Lambeck, J.X. Mitrovica, Estimates of the regional distribution of sea level rise over the period from 1950-2001, *J. Climate*, 17(13), 2609-2625, 2004.