Latest Developments and New OVW Products at the Physical Oceanography Distributed Active Archive Center (PO.DAAC)

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Welcome to PO.DAAC!

- We provide data, tools, and user services for physical ocean parameters including: Circulation/Currents, Gravity, **OvW**, Salinity, Sea Ice, SST, and OT.
- One of 12 NASA-sponsored DAACs
- Designated archive for many of NASA’s EOS missions: Aquarius (2010), GRACE, Jason-1, Nimbus-7, NSCAT, SeaSat, SeaWinds on QuikSCAT/ADEOS-II.
- Additional archive for partner missions and value-added products: AVHRR, GHRSSST, MODIS, SSM/I Pathfinder, TOPEX/Poseidon, WindSat (cal/val).
2009 Data Usage Distribution

- AVHRR
- GHRSSST
- QuikSCAT
- Jason-1
- Other
NOTE: Re-Design In Progress!

Web: http://podaac.jpl.nasa.gov/
FTP: ftp://podaac.jpl.nasa.gov/

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Broadening User Service and Support

- Ocean and Climate Research: biggest driver and highest priority
- Ocean Resource Management: fisheries, wind power farms, oil rigs
- Public Outreach/Education: media outlets, schools, public officials

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Measuring Our Success

• Metrics collection:
  – Data ingest and access
  – Data and services usage
  – User satisfaction rates
  – Portal access
  – Search engine ranking

• Reminder: please register your name and email at podaac@podaac.jpl.nasa.gov in order to receive the annual EOSDIS user satisfaction survey.
New Ocean Wind Products

- Cross-Calibrated Multi-Platform (CCMP) Ocean Surface Wind Components
  - July 1987 through June 2009: 22 Year Data Record
  - NetCDF; binary byte-mapped fields for L2.5 datasets
  - Daily Swath Grids, 6-Hourly Level-4 Analyses, Monthly and Pentad Fields
  - 0.25 degree resolution

- ASCAT Level 2 Ocean Surface Wind Vectors (KNMI/EUMETSAT)
  - Near-Real-Time (NRT), 2-3 hour latency, NetCDF, CF-compliant
  - 12.5-km dataset: March 3, 2009 - present
  - 25-km dataset: March 28, 2007 - present
CCMP Usage Metrics

Unique Users

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Services and Tools for Users

- Source data retrieval: FTP, HEFT/ASPERA, and OPeNDAP.
- Level-3 Subsetting via POET
- Hurricane/Typhoon Tracker: NRT QuikSCAT UHR Winds
- Datacasting (RSS-feeds): http://datacasting.jpl.nasa.gov/
  - GHRSSST L2P, Jason-1 SSH, QuikSCAT UHR Images
- Basic read software, metadata, and guide documentation.
- User Services Help Desk: podaac@podaac.jpl.nasa.gov
New Dataminer Tool

- Level-2 Subsetting Capability
- ASCAT coming soon!
Product Delivery for PIs

Definitions:

- **Open**: standard products that have been fully vetted and validated and have full user support.
- **Controlled**: restricted access due to mission-sensitive data; usually regulated by ITAR.
- **Shared**: restricted access to products shared within a group of scientists led by the PI.
- **Preview**: products intended for public distribution but have limited user support due to a lack of vetting or validation.
- **Brokered**: products are searchable through the web portal but users are re-directed to the PI’s FTP server.
On the Horizon

• **Incoming Products:**
  – Vanhoff et al. Coastal High Resolution Gridded QuikSCAT Wind and Stress.
  – David Long’s Enhanced Resolution QuikSCAT Sigma0 Image product.

• **Current Tasks:**
  – Implementing new archive and advanced search capabilities.
  – Web and FTP redesign in progress.
  – New products to be included in Dataminer (i.e., ASCAT, TOPEX, Jason-1, etc...).

• **Future Direction:**
  – Phasing-out POET with new up-dated subsetting tool and interface.
  – Climatologies for PO.DAAC datasets.
  – Dataset Uncertainties for gridded OVW products.
  – Metadata standardization for new products.
ECCO-2 Collaboration

RMS Difference: Absolute vs. Relative Wind

RMS Difference: ECCO-2 Relative vs. QuikSCAT
Questions?

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Please Register:

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Most Popular Products Via FTP*

- QuikSCAT Level 3 is PO.DAAC’s most popular product in terms of unique users:
  - 2008: 2313 unique users
  - 2009: 877 unique users

*Note: these numbers do not reflect usage via HEFT/ASPERA, OPeNDAP, or POET. Total usage numbers are likely to be much higher.