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May 2008 U.S. CLIVAR News-gram

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CALENDAR of UPCOMING EVENTS

(for more information-www.usclivar.org/calendar.html)

June 2008

2-4: International GODAE Steering Team Meeting (Silver Spring, MD)

10-12: 2nd Joing GOSUD/SAMOS Workshop (Seattle, Washington)

17-19: CCSM Annual Meeting (Breckinridge, CO)

17-19: Workshop on Drought and Early Warning Systems in the US (Kansas City, MO)

July 2008

14: US CLIVAR Science Symposium on Climate Prediction over the next decade (Irvine, CA)

15-17: US CLIVAR Summit (Irvine, CA)

Research Opportunities

NASA Research Opportunities in Space and Earth Sciences (ROSES) 2008
Education and Public Outreach

This solicitation is for investigations or projects utilizing SMD content supporting NASA education and public outreach objectives. It solicits proposals that address substantial and

substantive educational needs or problems and offer solutions of significant impact. Projects are expected to be relevant to the NASA SMD Education portfolio. This relevance should be clearly demonstrated in the proposal.

Given the many accomplishments in NASA Earth and space science education and public outreach in recent years, the program places particular emphasis on systemic and/or sustainable educational impact from SMD investments. Projects must have a clear linkage to the needs of the formal or informal educational systems.

Notices of Intent to propose (NOIs) are due **May 15, 2008**, and proposals are due July 15, 2008. <http://nspires.nasaprs.com/> (select "Solicitations" then "Open Solicitations" then "NNH08ZDA001N").

Further information about this program element is available from Dr. Larry Cooper, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; Telephone: (202) 358-1531; E-mail: larry.p.cooper@nasa.gov.

2. National Science Foundation – Artic Announcement of Opportunity

The National Science Foundation (NSF) announces five opportunities for arctic researchers. These solicitations seek to establish and/or maintain international and interdisciplinary collaborations, data management, visualization and preservation, and new applications of computational thinking to analyze complex geoscience and ecological data. These opportunities will enhance polar research programs through partnerships with computer scientists and researchers in related fields.

For more information on any of the announcements, please contact Dan Lubin, Cyberinfrastructure Program Manager, NSF Office of Polar Programs:
Email: dlubin@nsf.gov Or contact the lead program officer listed with each solicitation.

- **Virtual Organizations as Sociotechnical Systems (VOSS), NSF 08-550 Full Proposal Deadline: 2 June 2008.** This opportunity seeks a study of the needs, realities, and perceptions, of collaboration in polar research using cyberinfrastructure. A successful study in this area could give the polar research community valuable long-term guidance. Collaboration between a polar scientist and a social scientist is required. For further information on this solicitation, please go to:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503256
- **Community-Based Data Interoperability Networks (INTEROP), NSF 07-565 Full Proposal Deadline: 28 July 2008.** This program's intent is to foster new research in making scientific data interoperable, re-purposing data for innovative uses not envisioned by the original creators of the data, and making data understandable and usable for communities other than the one in which the data originated. Areas of study include metadata conventions, ontologies, taxonomies, and consensus-building activities. For further information on this solicitation, please go to:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=502112 Or contact: Lucy Nowell
Phone: 703-292-8970 Email: lnowell@nsf.gov
- **Strategic Technologies for Cyberinfrastructure (STCI), NSF PD 06-7231 Full Proposal Target Dates: 14 August 2008 and 12 February 2009** This program's intent is to support work leading to the development and/or demonstration of innovative cyberinfrastructure services for science and engineering research that does not fit exactly within the other targeted solicitations. For further information on this solicitation, please go to:

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500066&org=OCI&from=home
Or contact: Abani Patra Phone: 703-292-8970 Email: apatra@nsf.gov

- **Cyber-Enabled Discovery and Innovation (CDI), NSF 07-603 Letter of Intent Due: 30 September 2008. Preliminary Proposal Due: 4 November 2008 Full Proposal Due: 27 February 2009.** This five-year initiative seeks to create revolutionary science and engineering research made possible by innovations and advances in computational thinking. It is intended to produce a very versatile program that incorporates a solid partnership with a computer scientist. For further information about this solicitation, please go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503163 Or Contact: Sirin Tekinay Phone: 703-292-8910 Email: stekinay@nsf.gov
- **Sustainable Digital Data Preservation and Access Network Partners (DataNet), NSF 07-601. Preliminary Proposal Due: 6 October 2008 Full Proposal Target Date: 16 February 2009** This program will support research into digital data preservation and long-term access by integrating library and archival sciences, cyberinfrastructure, computer and information sciences, and domain (e.g., polar) science expertise. For further information about this solicitation, please go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503141 Or Contact: Lucy Nowell Phone: 703-292-8970 Email: lnowell@nsf.gov

Position Announcements

3. Princeton University (3 Positions Open)

Princeton University-Professional Specialist

The Atmospheric and Oceanic Sciences Program at Princeton University seeks a professional specialist to develop and run computer models. Candidates should have extensive experience with UNIX and FORTRAN programming, preferably in the area of numerical models. This position is in the Biogeochemistry Modeling Group, which does research on the global carbon cycle, marine biology, and their response to global warming, with a focus on the development of ocean circulation, ecology, and earth system climate models. Candidates must possess a minimum of a Master's degree in science. Training in oceanic and atmospheric sciences and experience with analysis software (Ferret, Matlab or IDL) is strongly preferred. Salary and rank will be commensurate with experience and qualifications. Applicants are asked to send a resume, a statement of research experience and interests, and the names and contact information (phone, e-mail and address) of at least three references to Anna Valerio (apval@splash.princeton.edu), Princeton University, AOS Program, Sayre Hall, 300 Forrestal Road, Princeton, NJ 08540-6654, USA. Review of applications will begin as soon as they are received and continue until the position is filled. Princeton University is an Equal Opportunity/Affirmative Action employer. For general information about applying to Princeton University and how to self-identify, please see

<http://web.princeton.edu/sites/dof/applicantsInfo.htm>.

Regional Ocean Climate Modeling at Princeton University

Applications are invited for a post-doctoral research position to i) lead in the development of algorithms for nested regional ocean climate models and ii) apply a nested model in a study of climate impact on coastal marine resources and bio-geochemistry. Particular project goals are to implement the GFDL coupled ocean model in a nested framework to enable regionally enhanced resolution of oceanographic processes critical to fisheries, hypoxia, and harmful algal blooms. The intent is to develop a general capability for nested modeling, and to apply the technology to a region of particular scientific interest within a global coupled climate model of IPCC caliber. Possible regions of interest include the North Atlantic Ocean with applications to Cod fisheries, the Scotia Sea and other regions of the Southern Ocean with applications to krill, and the Gulf of Mexico with questions of anoxia and hypoxia. The project

will involve intimate development of model algorithms, as well as oceanographic research in the particular region of interest. The successful candidate will join a vigorous research environment and will be able to take advantage of a wide range of ongoing climate related activities both at Princeton University and at GFDL/NOAA. A Ph.D. in oceanography, biogeochemistry or atmospheric sciences is preferred. The successful applicant will join the ocean modeling group to work with Prof. Jorge Sarmiento (http://www.princeton.edu/aos/people/faculty/jorge_sarmiento/), Charlie Stock and Alistair Adcroft (<http://www.gfdl.noaa.gov/research/ocean/>) in the AOS Program and Stephen Griffies at GFDL/NOAA. Applicants are asked to send a curriculum vitae, a statement of research experience and interests, and the names and contact information (phone, e-mail and address) of at least three references to apval@splash.princeton.edu, Princeton University, AOS Program, Sayre Hall, 300 Forrester Road, Princeton, NJ 08540-6654, USA.

Oceanic and Terrestrial Biogeochemistry and Climate Research at Princeton University

Applications are invited for one or more postdoctoral positions involving model and data based studies of ocean, atmosphere, and terrestrial biogeochemical cycles with relevance to the carbon cycle, climate change, and the response of the ocean and terrestrial biosphere to climate change. Areas of particular interest include but are not limited to: ocean meridional overturning circulation and biogeochemistry; coupled atmosphere-ocean-biogeochemistry earth system modeling; detection and attribution of marine biological interannual variability and response to climate change; and analysis of oceanic and atmospheric carbon system observations. A Ph.D. in physical oceanography, oceanic or terrestrial biogeochemistry, or some related field is required. The successful candidate(s) will join a vigorous interdisciplinary research group and will be able to take advantage of a wide range of related research at Princeton University and GFDL/NOAA. Applicants are asked to send vitae, a statement of research experience and interests, and names of at least 3 references to Jorge Sarmiento c/o Anna Valerio apval@splash.princeton.edu, Atmospheric and Oceanic Sciences Program, Princeton University, 300 Forrester Road, Princeton, NJ 08540-6654. Review of applications will begin as soon as they are received, and continue until the positions are filled. Princeton University is an Equal Opportunity/Affirmative Action employer.

Meetings and Workshops

3. Interdisciplinary Climate Research Symposium Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) Saguaro Lake Ranch, AZ 2 - 9 November 2008

Application Deadline: Wednesday, 30 April 2008

For further information, please go to: <http://www.disccrs.org/>

The Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS), connects natural and social scientists engaged in research related to climate change, impacts and solutions. The goal is to broaden perspectives and establish a collegial peer network to address climate challenges at the interface of science and society. The DISCCRS IV week-long symposium will be held in the Tonto National Forest outside Phoenix, Arizona. Participants will provide oral and poster presentations in plenary format, hone interdisciplinary communication and team skills, and discuss emerging research, societal and professional issues. Established researchers are invited to serve as mentors. To view the report and participants from last year's symposium, please go to:

http://www.disccrs.org/reports/DISCCRS_III_Symposium_Report.pdf

Participation will be limited to thirty-four early career scholars identified by an interdisciplinary committee of research scientists based on review of submitted applications. Airfare and on-site expenses will be defrayed.

To be eligible, participants must have completed their PhD requirements between 1 April 2006 and 31 March 2008. Applications are encouraged from the natural and social sciences, economics, mathematics, engineering, or any other field so long as the research focus relates to climate change issues. Selection will favor those with interdisciplinary, collaborative interests. While the emphasis is on the US research system, applicants from all countries will be considered.

5. Global Energy and Water Cycle EXperiment (GEWEX) Conference 24-28 August 2009, Melbourne, Australia

The Conference will be held in parallel with the 2nd Integrated Land Ecosystem-Atmospheric Processes Study (iLEAPS) Science Conference. The theme for both conferences is "Water in a Changing Climate: Progress in Land-Atmosphere Interactions and Energy/Water Cycle Research." Joint sessions are planned on the following topics: 1) Land in the Climate System 2) Aerosol, Cloud, Precipitation and Climate Interactions 3) Future Integrated Observations and Modelling Systems. A Call for Papers and information on registration and logistics will be provided in the next announcement. For more information, send an email to gewex@gewex.org or see <http://www.gewex.org> for updates.

New Products and Reports Available:

- **LANDSAT imagery available**

The USGS Landsat archive is an unequalled 35-year record of the Earth's surface that is valuable for a broad range of uses, ranging from climate change science to forest management to emergency response, plus countless other user applications. Under a transition toward a National Land Imaging Program sponsored by the Secretary of the Interior, the USGS is pursuing an aggressive schedule to provide users with electronic access to any Landsat scene held in the USGS-managed national archive of global scenes dating back to Landsat 1, launched in 1972. By February 2009, any archive scene selected by a user - with no restriction on cloud cover - will be processed automatically to a standard product recipe, using such parameters as the Universe Transverse Mercator projection, and staged for electronic retrieval. In addition, newly acquired scenes meeting a cloud cover threshold of 20% or below will be processed to the standard recipe and placed on line for at least six months, after which they will remain available for selection from the archive.

Newly acquired, minimally cloudy Landsat 7 Enhanced Thematic Mapper Plus (ETM+) data covering North America and Africa are already being distributed by the USGS over the Internet at no charge, with expansion to full global coverage of incoming Landsat 7 data to be completed by July 2008 (see timeline below). The full archive of historical Landsat 7 ETM+ data acquired by the USGS since launch in 1999 will become available for selection and downloading by the end of September 2008. At that time, all Landsat 7 data purchasing options from the USGS, wherein users pay for on-demand processing to various parameters will be discontinued.

By the end of December of 2008, both incoming Landsat 5 Thematic Mapper (TM) data and all Landsat 5 TM data acquired by the USGS since launch (1984) will become available, with all Landsat 4 TM (1982-1985) and Landsat 1-5 Multi-Spectral Scanner (MSS) (1972-1994) data becoming available by the end of January 2009. All Landsat data purchasing options from the USGS will be discontinued by February 2009, once the entire Landsat archive can be accessed at no charge.

Landsat scenes can be previewed and downloaded using the USGS Global Visualization Viewer at <http://glovis.usgs.gov> [under "Select Collection" choose Landsat archive: L7 SLC-off (2003-present)]. Scenes can also be selected using the USGS Earth Explorer tool at <http://earthexplorer.usgs.gov> [under "Select Your Dataset" choose Landsat Archive: L7 SLC-off (2003-present)]. For further information on Landsat satellites and products, see <http://landsat.usgs.gov>

- **CERES Data Released**

CER_SRBAVG_Aqua-FM3-MODIS_Edition2A

CER_SRBAVG_Aqua-FM4-MODIS_Edition2A

The Monthly TOA/Surface Averages (SRBAVG) data product contains the next generation of monthly mean gridded global Earth Radiation Budget (ERB) data averaged globally. These data represent a major improvement over previous data sets such as the Earth Radiation Budget Experiment (ERBE) and the CERES ERBE-like products (ES-4 and ES-9) in several key aspects. First, the accuracy of TOA flux is greatly improved by the use of new angular distribution models (ADM) based on improved scene identification. Second, high temporal resolution imager data from geostationary satellites are used to reduce temporal sampling errors. Finally, the SRBAVG product is the first ERB data set to contain detailed cloud properties that are consistent with the fluxes.

Temporal coverage for the SRBAVG Aqua Edition 2A data sets is from July 2002 through October 2005.

Information about the CERES products, including products available, documentation, relevant links, sample software, tools for working with the data, etc. can be found at the CERES data table:

http://eosweb.larc.nasa.gov/PRODOCS/ceres/table_ceres.html

- **CLIVAR Reports Available**

The Report of the 7th Meeting of the CLIVAR Working Group on Ocean Model Development is available to download at: <http://eprints.soton.ac.uk/50804>

The Report of the 1st CLIVAR Global Synthesis and Observation Panel Workshop on Ocean Velocity Measurements and their Application is available to download at: <http://eprints.soton.ac.uk/50803/>.

The Summary Report of the CLIVAR WGOMD Workshop on Numerical Methods in ocean models is available to download at: <http://eprints.soton.ac.uk/50802/>.

- **Ocean Carbon and Biogeochemistry (OCB) Newsletter**

The OCB Project Office is pleased to share with you the first issue of the OCB Newsletter. Please see attached file.

- **Comments solicited for the USGS-lead Draft Report of Synthesis and Assessment Product 3.4: "Abrupt Climate Change."**

This report is one of 21 Synthesis and Assessment Products prepared by the U.S. Climate Change Science Program (CCSP). DATES: Comments must be received by June 16, 2008.

ADDRESS: The Draft Report is posted on the CCSP web site at:

<http://www.climate-science.gov/Library/sap/sap3-4/public-review-draft/>

Comments must be submitted in the prescribed format to: 3.4-abrupt@climate-science.gov

- **Comments solicited for the Draft Report of Synthesis and Assessment Product 5.2:
"Best practice approaches for characterizing, communicating, and incorporating
scientific uncertainty in decision making"**

DATES: Comments must be received by COB 9 June, 2008. ADDRESSES: The Draft Report is posted on the CCSP web site at: <http://www.climatescience.gov/Library/sap/sap5-2/public-review-draft/default.htm/> Comments must be submitted in the prescribed format to: 5.2-uncertainties@climatescience.gov