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June 2008 U.S. CLIVAR News-gram

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CALENDAR of UPCOMING EVENTS

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

July 2008

- 14: US CLIVAR Science Symposium on Climate Prediction over the next decade (Irvine, CA)
15-17: US CLIVAR Summit (Irvine, CA)

September 2008

- 3-5: NOAA Ocean Climate Observations Annual Meeting (Silver Spring)

Research Opportunities

1. NASA Research Opportunities in Applied Information Systems (ROSES) 2008

The purpose of the Applied Information Systems Research (AISR) program is to evolve advances in computer and information science and technology to enhance science productivity of NASA's Science Mission Directorate (SMD). AISR seeks innovative ideas for applying advanced information and related technologies to increase life cycle effectiveness and efficiency of research endeavors conducted by SMD research programs in Planetary Science, Heliophysics,

Astrophysics, and Earth Science. The due dates for AISR have been delayed approximately 1 month. Notices of Intent (NOIs) to propose are now **due June 30, 1008**. Proposals are now due **August 27, 2008**.

On or about May 22, 2008, this Amendment to the NASA Research Announcement "Research Opportunities in Space and Earth Sciences (ROSES) 2008" (NNH08ZDA001N) will be posted on the NASA research opportunity homepage at <http://nspires.nasaprs.com/> (select "Solicitations" then "Open Solicitations" then "NNH08ZDA001N"). Further information about this program element is available from Mr. Joseph H. Bredekamp, Heliophysics Division, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; Telephone: (202) 358-2348; E-mail: joe.bredekamp@nasa.gov.

2. Department of Energy (DOE) – 2009 Call for INCITE Proposals

For the sixth consecutive year, DOE's Office of Science is inviting proposals from scientists and engineers for the Innovative and Novel Computational Impact on Theory and Experiment (INCITE) program. The INCITE program will award significant allocations on some of the world's most powerful supercomputers to innovative, large-scale computational science projects to enable high-impact advances. Scientists from the national and international research community will be able to request allocations on machines at Oak Ridge National Laboratory (ORNL), Argonne National Laboratory (ANL), Lawrence Berkeley National Laboratory (LBNL), and Pacific Northwest National Laboratory (PNNL).

The INCITE program is open to all scientific researchers and research organizations, including industry. The program seeks computationally intensive research projects of large scale, with no requirement of current Department of Energy sponsorship, that can make high-impact scientific advances through the use of a large allocation of computer time, resources, and data storage. Proposals can be for one to three years in length. A small number of large awards, including possible renewals of current multi-year allocations, is anticipated. The INCITE program also provides opportunities for industry to use DOE high-end computing resources as encouraged in reports and case studies by the Council on Competitiveness. For more information on previous awards, see <http://www.science.doe.gov/ascr/incite/INCITEPreviousAwards.html>.

Successful proposals will describe high-impact scientific research in terms suitable for peer review in the area of research and also be appropriate for general scientific review comparing them with proposals in other disciplines. Applicants must also present evidence that in single runs they can make effective use of a major fraction of the processors of the high performance computing systems offered for allocation. Applicant codes must demonstrate readiness to run on the requested computing system(s).

Eligibility: This program specifically encourages proposals from universities, other research institutions and industry. Industry is specifically solicited to propose challenging problems that may be solved using high performance computing. Current sponsorship by the Office of Science of the Department of Energy is not a requirement for this program.

Application Process: Applications will be accepted only electronically and in accordance with these instructions. Proposals will be accepted until the call deadline - **11:59 pm EDT Monday, August 11, 2008**.

3. Asia-Pacific Network for Global Change Research (APN) Call for Proposals

Announcing the upcoming June 6, 2008 Launch of the APN's 2008 Calls for Proposals: <http://www.apn-gcr.org/en/callforproposals.html> More information will be available on the APN homepage, including the guidelines for proposal application and templates among others.

For further queries, you may also contact our Scientific Officer, Dr. Linda Stevenson (l Stevenson@apn-gcr.org).

Position Announcements

4. Postdoctoral Position at NOAA-GFDL

Cloud Parameterization in General Circulation Models

Through the UCAR Visiting Scientist Programs, the NOAA Geophysical Fluid Dynamics Laboratory (GFDL) at Princeton University is seeking a postdoctoral fellow to participate in the development of a parameterization for boundary-layer clouds in general circulation models. The successful candidate will participate with a team of scientists in implementing and evaluating a new approach to parameterizing boundary-layer clouds based on sub-grid distributions of motion and moisture which govern cloud properties. Extensive use will be made of observations from the VOCALS [VAMOS (Variability of the American Monsoon Systems) Ocean-Cloud-Atmosphere-Land Study] field campaign to develop and evaluate the parameterization. The position will provide opportunities to interact with scientists engaged in research on microphysical and aerosol aspects of cloud-climate interactions.

Essential Requirements: Ph.D. and experience in (1) general circulation, cloud-resolving, or large-eddy modeling and/or (2) development of physical parameterizations for general circulation models or numerical weather prediction.

Highly Desirable Requirements: Experience with field or satellite observations, or data analysis, especially for evaluating atmospheric models. The successful candidate will be expected to publish in the scientific literature and participate in relevant scientific meetings, especially VOCALS Science Team meetings. Further information about this position may be obtained by writing to Dr. Leo Donner at Leo.J.Donner@noaa.gov.

Application deadline is July 15, 2008. Application review will begin July 15; however, applications will be accepted until the position is filled. For further information, visit the VSP website at: www.vsp.ucar.edu

5. Physical Oceanographer at NOAA-AOML

ZP-IV or ZP-V (GS 13-15 equivalent)

The Physical Oceanography Division (PhOD) of NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) is seeking a researcher with expertise in physical oceanography and the ocean's role in climate variations. The successful applicant will have significant research publications in the refereed literature, a history of success in obtaining funding and conducting research projects, the ability to organize and to promote research projects, and international recognition as a leading scientist in the fields of oceanography or climate research. NOAA/AOML is part of the US Department of Commerce and is located in Miami, Florida. AOML's mission is to conduct basic and applied research in oceanography, tropical meteorology, and atmospheric and oceanic chemistry. This research seeks to understand the physical characteristics and processes of the ocean and the atmosphere, both separately and as a coupled system. The research emphasis of PhOD is collection of in-situ data and the use of these data and numerical model results to increase understanding of a wide variety of ocean and climate processes, with the ultimate goal of developing climate forecast capabilities.

For more information, contact Cynthia Wilder, cynthia.wilder@noaa.gov, or visit the web site <http://www.usajobs.opm.gov/> reference Announcement Numbers OAR-AOML-2008-0007 and OAR-AOML-2008-0008.

6. Tenure-Track Faculty Positions, University of South Florida

<http://www.marine.usf.edu/about/employment.shtml>

The College of Marine Science (CMS) at the University of South Florida (USF) invites applications for two tenure-track, nine-month academic faculty positions in Physical Oceanography. Appointments are expected to be at the Assistant Professor or Associate Professor rank.

* Position Number 3215 Global-scale, Ocean-Atmosphere Interaction Modeler The CMS-USF seeks a global climate-related, ocean-atmosphere interaction modeler. Minimum qualifications include a strong foundation in the Geophysical Fluid Dynamics and Thermodynamics of the coupled ocean-atmosphere system, and experience with large-scale, coupled ocean-atmosphere circulation models. Preferred qualifications include experience with large data sets and the analysis tools to critically assess model performance. Training may be from either the meteorological or oceanographic perspectives. Research interests may include aspects of modern climate, paleo-climate, or predictions of future climate. In any of these scenarios we seek a scientist with multidisciplinary interests that will span the oceanographic disciplines representative of the CMS from climate variations to the ecological, biogeochemical and societal ramifications thereof.

* Position Number 4431 Mesoscale, Ocean-Atmosphere Interaction Modeler The CMS-USF seeks a mesoscale, ocean-atmosphere interaction modeler. Minimum qualifications include a strong foundation in the Geophysical Fluid Dynamics and Thermodynamics of the coupled ocean-atmosphere system, and experience with mesoscale, coupled ocean-atmosphere numerical circulation models. Preferred qualifications include experience with large data sets and the analysis tools to combine observations with models through data assimilation and to critically assess model performance. Training may be from either the meteorological or oceanographic perspectives. With Florida being an elongate peninsula, and with every aspect of the Florida economy touched by the ocean, we seek a person with interest in aspects of weather and ocean circulation affecting the State of Florida and its surrounding environs, the Caribbean and the Gulf of Mexico, and similar mesoscale environments, including severe aspects of weather (hurricanes and severe extra-tropical systems) that may be hazardous to such regions. Given the ongoing CMS-USF activities in coastal ocean observing and modeling systems and the societal applications thereof, preference will also be given to individuals with compatible, multidisciplinary interests that span the oceanographic disciplines within the CMS, such as applications to harmful algae blooms, fisheries ecology, biogeochemical and hydrological cycles. Additional information about the College is available at the website: <http://www.marine.usf.edu>.

7. Project Officer in SOLAS (Surface Ocean - Lower Atmosphere Study)

£28,290 to £33,780 per annum

The post of Project Officer is an opportunity to work within the International Project Office (IPO) at the School of Environmental Sciences, University of East Anglia in Norwich UK. The office, which is led by an Executive Officer, works to the Scientific Steering Committee (SSC) of SOLAS in implementing the project (see <http://www.SOLAS-int.org>). The Project Officer will be involved in assisting the SSC, liaising with the sponsors (IGBP, WCRP, SCOR, CACGP) and other relevant organizations, setting up and servicing working groups and task teams. The post holder will represent the project at international meetings and interact with SOLAS national committees and groups, completing the SOLAS Implementation Plan document. This post will involve some international travel and is available immediately until 31 March 2010.

You must have a BSc in a relevant discipline, and appropriate postgraduate experience, with excellent personal and presentational skills. Ideally, you will hold an advanced degree (MS or

PhD) in SOLAS-relevant science and have experience in coordination of international research. You must have excellent communication skills, including skills in electronic communication. Further particulars can be viewed at <http://www.uea.ac.uk/env/vacancies.html>
Closing date: 12.00 GMT on 16 June 2008.

8. Executive Officer for IMBER (Integrated Marine Biogeochemistry and Ecosystem Research) international project (deadline 23 June 2008)

IMBER is an international research project focussed on marine biogeochemical and ecosystem research (www.imber.info). IMBER is seeking to appoint an Executive Officer to lead the International Project Office (IPO) at the Institut Universitaire Européen de la Mer, Brest, France. IUEM is a joint institute between CNRS and the University of Brest. The Executive Officer will be assisted by a Deputy Executive Officer and an Administrative Assistant. The tasks of the Executive Officer and IPO staff include assisting the SSC in implementing the IMBER Science Plan and Implementation Strategy, organising and servicing meetings of the SSC, working groups and task teams, liaising with the sponsors (IGBP and SCOR) and other relevant organisations, seeking and managing project finances, representing the project at international meetings, maintaining the project website and interacting with IMBER national committees and groups, as well as other international projects. For this senior post we seek a candidate with a strong track record in scientific coordination, as well as familiarity, and preferably some experience, in the IMBER research area. Experience of coordination of international science projects would be an advantage. Some international travel will be involved. The successful candidate will have excellent interpersonal and administrative abilities, be fluent in English and have first-class skills in both written and verbal communication. This post is available for three years and will be filled as soon as possible. Starting salary will up to 70,000 Euros (gross), dependent on the relevant skills, knowledge and experience that the post holder brings to the role.

Details of the IMBER project can be viewed at www.imber.info. Applications, to include a CV, and the names and contacts for three referees should be sent to:

Dr Julie Hall
NIWA PO Box 11 115
Hamilton, New Zealand
or j.hall@niwa.co.nz
or Fax 64 7 856 0151

Meetings and Workshops

9. "First International Symposium on Arctic Research - Drastic Change Under Global Warming" Tokyo, Japan 4-6 November 2008

Pre-Registration and Abstract Submission Deadline: Saturday, 31 May 2008

For further information, please go to:

<http://www.jamstec.go.jp/iorgc/sympo/isar1/index.html>

The Science Council of Japan Subcommittees for the International Arctic Science Committee (IASC) and the Climate in the Cryosphere Program (CliC) announce a symposium, "International Symposium on Arctic Research - Drastic Change Under Global Warming " to be held 4-6 November 2008, in Tokyo, Japan. Abstracts are now being accepted for paper and poster presentations. The following topics will provide the basis of general discussion: (1) Changes in the arctic climate and sub-systems (2) Studies on the atmosphere-ocean-land system in the Arctic (3) Feedbacks embedded in the sub-systems of the Arctic (4) Impacts and feedbacks between the

arctic and global climates (5) Global and regional modeling, focusing on the Arctic (6) Arctic influence on the Asian climate

Participants wishing to present a paper or poster are requested to submit a tentative title and a short abstract. The symposium organizers seek abstracts from a wide range of disciplines, including: climatology, atmospheric science, oceanography, cryosphere science, biological science, and hydrology. The **deadline for submission of abstracts is Saturday, 31 May 2008**.

To submit an abstract, please go to:

<http://www.jamstec.go.jp/iorgc/sympo/isar1/registration.html>

10. FINAL SYMPOSIUM on the Global Ocean Data Assimilation Experiment (GODAE)

"The revolution in global ocean forecasting GODAE: 10 years of achievement" to be held in Nice, France on 12-15 November 2008.

Participants are now invited to submit abstracts for poster presentations. The accepted contributions will be published in the abstracts volume and distributed at the symposium. We would be happy if you could consider to attend and submit an abstract on one of the subjects laid out in the session descriptions.

http://www.ostst-godae-2008.com/frontoffice/index.php?id_lang=2&id_rub=127.

Abstracts should be in English and their main text should not exceed one A4 page. An abstract template can be downloaded from the call for papers page. Please submit your abstract online, by using the submission facility

http://www.ostst-godae-2008.com/frontoffice/index.php?id_lang=2&id_rub=99.

Make sure you read the guidelines for authors carefully.

Deadline for submission is 30 June 2008.

New Products and Reports Available:

- **Report of the JSC/CLIVAR Working Group on Coupled Modelling (WGCM)**
is available to download from <http://eprints.soton.ac.uk/51258>
- **GODAE-OOPC OSSE/OSE Meeting Report**
is available from here (http://www.godae.org/modules/documents/documents/OSSE-OSE_report_Nov-07.pdf) Global ocean state estimation systems are a powerful means to assess the impact of the observing system, to identify gaps and to improve the efficiency/effectiveness of the observing system. OSEs (Observing System Experiments) or OSSEs (Observing System Simulation Experiments) are, in particular, useful tools which have been applied to high-resolution ocean forecasting (the current primary focus of GODAE), seasonal-to-interannual prediction, and climate analysis and reanalysis. OSEs are flexible tools as they can be used to examine the impact of observations on a particular application (e.g. surface current forecasts for marine safety applications) or to give insight into the effectiveness of the data assimilation systems that are being used. Objectives for the GODAE/OOPC meeting:

- * Review work done on impact studies, OSEs and OSSEs over the past years
- * Identify robust and common features
- * Understand differences in assimilation systems
- * Provide good examples of the contribution of observing systems
- * Provide preliminary recommendations on observing system design
- * Define and agree on activities to be carried out before the GODAE final symposium

- * Develop new ideas on the way to assess and design the ocean observing systems and propose new experiments to be carried out in the coming years
- **Arctic Observing Network (AON): “Toward a US Contribution to Pan-Arctic Observing” Arctic Research of the United States, Volume 21 U.S. Interagency Arctic Research Policy Committee**
 To download the report, please go to: <http://www.nsf.gov/pubs/2008/nsf0842/>
 The development and deployment of the AON is a major contribution to the International Polar Year (IPY), a time of intensive and coordinated scientific activity at both poles. The new report sets forth a plan to continue the observations in cooperation with local, state of Alaska, and international groups. Established by Congress through the Arctic Research and Policy Act, the Interagency Committee is led by the National Science Foundation (NSF).
- **Climate Mapper tool for SERVIR-the Regional Visualization and Monitoring System**
 USAID, NASA, the Institute for the Application of Geospatial Technology (IAGT), the University of Colorado, and CATHALAC are pleased to announce the beta release of the Climate Mapper tool for SERVIR-the Regional Visualization and Monitoring System. The Climate Mapper makes the results of climate change models accessible to a broad user community. With the Climate Mapper, users can assess climate change projections for the 2030s and 2050s against 3D visualizations of landscape. This should enhance vulnerability assessments as development planners consider adaptation strategies for projects. The Climate Mapper and SERVIR Viz can be downloaded at:
http://www.iagt.org/servir/servir_viz/climateMapper.asp

The Climate Mapper data are currently available for Africa for 1 degree 1 degree grid cells, or roughly 50km x 50km near the equator. The Mapper will soon expand to cover the entire globe. The Climate Mapper presents historical temperature and precipitation for the base period (1961-1990). These data are taken from the University of East Anglia's Climate Research Unit (CRU) database of monthly climate observations from meteorological stations and interpolated onto a 0.5° grid covering the global land surface.

The modeled data are monthly data averaged over the decades 2031-2040 and 2051-2060. Data are outputs of three of the models used in the IPCC's 4th Assessment Report: the National Center for Atmospheric Research Community Climate System Model (NCAR CCSM); the European Centre/Hamburg Model (ECHAM); and the Geophysical Fluid Dynamics Laboratory Coupled Model (GFDL-CM21). These models were chosen because they represent the highest, middle, and lowest projections for changes in Africa in the Climate Moisture Index (CMI), a measure of the relative balance of precipitation and temperature. The models were run using the A1B SRES scenario, a scenario of economic activity and carbon emissions that most closely represents the current or business-as-usual economic and carbon emissions trajectory. The data presented as maps and graphs are the difference (delta) of a ten year average of GCM monthly values for the SRES A1B scenario compared with the 30 year average base period (1961 -1990).