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April 2010 U.S. CLIVAR News-gram

Table of Contents

i – Calendar of Upcoming Events

Research Opportunities

1. NSF/DOE/USDA solicitation on Decadal and Regional Climate Prediction using Earth System Models (EaSM)
2. Funding Opportunity Department of Energy
3. NASA Announcement of Opportunity for Climate Absolute Radiance and Refractivity Observatory (CLARREO) Mission
4. NSF Antarctic Research Call for Proposals
5. Partnership for Observation of the Global Oceans (POGO) Opportunities in Capacity Building
6. Special Partnership for Observation of the Global Oceans (POGO) Visiting Fellowship

Position Announcements

7. Director, International CLIVAR Project Office
8. Naval Postgraduate School seeks Assistant Research Professor

Meetings and Workshops

9. Scientific Committee on Antarctic Research (SCAR) Open Science Conference
10. NOAA's 35th Climate Diagnostics and Prediction Workshop
11. Ocean Carbon and Biogeochemistry summer workshop
12. Workshop on expanding the AfricaArray seismic network to support multidisciplinary science in Africa
13. 17th Air-Sea Interaction Conference
14. Community Climate System Model (CCSM) project at the National Center for Atmospheric Research modeling tutorial
15. Deep Ocean Workshop: Observed and Model-Simulated Property Changes in the Deep Ocean of the Southern Hemisphere

ANNOUNCEMENTS

- **VAMOS Newsletter**
- **WCRP e-zine No.17**
- **Go-Ship News**

CALENDAR of UPCOMING EVENTS

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

May 2010

10-13: AIMEs Open Science Conference: Earth System Science 2010: Global Change, Climate and People (Edinburgh, Scotland)

11-14: SAMOC 3 Meeting (Rio, Brazil)

17-20: CLIVAR SSG Meeting (Denver, CO)

June 2010

7-9: US AMOC Meeting (Miami, FL)

21-23: CLIVAR Extremes Workshop (Paris, France)

22-25: AGU Western Geophysics Meeting (Taiwan)

28 – 2 July: CCSM Annual Meeting (Breckenridge, CO)

July 2010

7-9: US CLIVAR Summit (Denver, CO)

Research Opportunities

1. NSF/DOE/USDA solicitation on Decadal and Regional Climate Prediction using Earth System Models (EaSM)

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503399&org=NSF&sel_org=NSF&from=fund

Anticipated Funding Amount: \$45,000,000 to \$50,000,000 is available in FY 2010, subject to availability of funds.

Letter of Intent Due Date(s) (required): May 24, 2010

Full Proposal Deadline(s): June 25, 2010

This interdisciplinary grand challenge calls for the development of next-generation Earth System Models that include coupled and interactive representations of ecosystems, agricultural working lands and forests, urban environments, biogeochemistry, atmospheric chemistry, ocean and atmospheric currents, the water cycle, land ice, and human activities. The realization of these goals demands the engagement of diverse interdisciplinary teams of experimental, theoretical, modeling and computational researchers, including but not limited to, biologists, chemists, computer scientists, geoscientists, material scientists, mathematicians, physicists, cyberinfrastructure specialists, and social scientists. Successful proposals will develop intellectual excitement in the participating disciplinary communities. Also encouraged are proposals that promoted diversity and have broad educational or societal impacts that capitalize on this interdisciplinary opportunity.

Competitive projects should address key problems critical to linking relevant Earth system processes over a variety of spatial and temporal scales and to advancing the theoretical foundations for the modeling and simulation of existing data and data collected by the new and envisioned NSF environmental observatories. Proposals are encouraged that have the potential to dramatically improve our predictive capabilities as well as our understanding of how small and large scale processes lead to non-linearities and activation thresholds.

The specific goals of this solicitation are to improve upon and extend current modeling capabilities in order to:

1. Achieve comprehensive, reliable global and regional predictions of decadal climate variability and change through advanced understanding of the coupled interactive physical, chemical, biological and human processes that drive the climate system.
2. Quantify the impacts of climate variability and change on ecological, agricultural and other human systems, and identify and quantify feedback loops through which human systems help determine environmental outcomes.
3. Maximize the utility of available observational and model data for impact and vulnerability/resilience assessments through up/downscaling activities.

4. Effectively translate model results and associated uncertainties into the scientific basis for well-informed human adaptation to and management decisions for climate change.

Two types of proposals--incubator/capacity building activities (Type 1) and large collaborative interdisciplinary research projects (Type 2)--are solicited.

**2. Funding Opportunity Department of Energy
Office of Biological and Environmental Research Preapplication Deadline: Monday, 12
April 2010 at 4:30 p.m. EST**

The Office of Biological and Environmental Research within the U.S. Department of Energy's Office of Science has posted the first Atmospheric System Research (ASR) Funding Opportunity Announcement (FOA) to develop innovative laboratory and observational data analyses and to utilize the resulting knowledge from such analyses to improve cloud and aerosol formulations in global climate models. The Funding Opportunity Announcement is available on the Office of Science website at <http://www.sc.doe.gov/grants/FOA-10-0000291.html>.

Potential applicants are required to submit a brief preapplication, referencing DE-FOA-0000291, **by 4:30 p.m. Eastern Standard Time (EST), April 12, 2010.**

Pre-applications should consist of a PDF file containing a maximum of two pages of narrative describing the research objectives, the technical approach(s), and the proposed team members and their expertise. Applicants for collaborative projects should submit a single pre-application identifying all project participants. Pre-applications should be sent via email, with subject line "Lead PI name - Preapplication -- DE-FOA-0000291 [Full or Exploratory]" to both program managers:

Kiran Alapathy Email: Kiran.Alapathy@science.doe.gov

Ashley Williamson Email: Ashley.Williamson@science.doe.gov

3. NASA Announcement of Opportunity for Climate Absolute Radiance and Refractivity Observatory (CLARREO) Mission

The CLARREO mission (<http://clarreo.larc.nasa.gov/>) addresses the need to rigorously observe climate change on decade time scales and to use decadal change observations as a critical method to determine the accuracy of climate change projections, such as those in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (<http://www.ipcc.ch/>).

The objective of Appendix A.38 is to solicit a Science Definition Team (SDT) to engage in the science definition and planning for the CLARREO mission. The primary role of the SDT will be to provide expert guidance to the CLARREO project in the areas of science objectives; science requirements; measurement requirements; algorithm development; data products; mission success criteria; potential descope options; and calibration, validation, and liaison with the broader science and applications communities.

No Notices of Intent to propose are requested. Proposals are due July 1, 2010. Table 2 and Table 3 of Summary of Solicitation for this NRA have been updated to reflect this change.

On or about March 30, 2010, this Amendment to the NASA Research Announcement "Research Opportunities in Space and Earth Sciences (ROSES) 2010" (NNH10ZDA001N) will be posted on the NASA research opportunity homepage at <http://nspires.nasaprs.com/> (select "Solicitations" then "Open Solicitations" then "NNH10ZDA001N"). You can now track amendments,

clarifications and corrections to ROSES and subscribe to an RSS feed at:
<http://nasascience.nasa.gov/researchers/sara/grant-solicitations/rozes-2010>

Questions concerning the CLARREO Science Team may be addressed to Kenneth Jucks, Earth Science Division, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; Telephone: (202) 358-0476; E-mail: kenneth.w.jucks@nasa.gov.

4. NSF Antarctic Research Call for Proposals

The Office of Polar Programs, National Science Foundation (NSF), has released the 2010 Antarctic Solicitation (NSF 10-543) for support of projects in Antarctica during 2011-2012 or projects in the United States beginning in early 2011.

Scientific research and operational support of that research are the principal activities supported by the United States Government in Antarctica. The goals are to expand fundamental knowledge of the region, to foster research on global and regional problems of current scientific importance, and to use Antarctica as a platform from which to support research. The U.S. Antarctic Program provides support for fieldwork only when a compelling justification exists for doing the work in Antarctica (i.e., the work can only be done, or is best done, in Antarctica). The program also supports Antarctic-related analytical research performed at home organizations.

This year's deadline, Tuesday, 25 May 2010, has been advanced relative to prior years. In response to recommendations by the recent Antarctic Science Committee of Visitors regarding the need to assess field support requirements in an accurate and timely way, and with the goal of streamlining decisions for award or decline, changes have been made to the way that field support information is gathered and the way that some items are budgeted. See the field support section of this solicitation for important information about requesting support. Planners at the support contractor are available to assist investigators with questions about field or logistical support.

Full Proposal Deadline: Tuesday, 25 May 2010. Please note that this is a new, earlier deadline. For additional information, please go to:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5519&org=ANT&from=home .

5. Partnership for Observation of the Global Oceans (POGO) Opportunities in Capacity Building

The Partnership for Observation of the Global Oceans (POGO) in collaboration with the Scientific Committee on Oceanic Research (SCOR), announce the POGO-SCOR Visiting Fellowship Programme for 2010. The Fellowship offers successful candidates the opportunity to visit other oceanographic centres for a period of between 1 to 3 months. The programme covers international airfare and a stipend for living expenses for up to 3 months. Deadline of Applications: 12 April 2010

POGO also announces a special AMT Visiting Fellowship for on-board training on an Atlantic Meridional Transect (AMT) Cruise. This fellowship offers the successful candidate the opportunity to participate in the preparation of the cruise at Plymouth Marine Laboratory or at the National Oceanography Centre in Southampton for up to 1 month prior to the cruise, participation in the cruise itself (12 October-25 November) and up to two months in the same institute after the cruise to participate in the data analysis and processing on completion of the cruise. The Fellowship provides international airfare and subsistence. Deadline for Applications: 1 June 2010

The Visiting Fellowships and the AMT Fellowship are open to scientists, technicians, graduate students (PhD) and Post Doctoral Fellows involved in oceanographic work in developing countries and countries with economies in transition. Priority will be given to applicants in early stages of career development. They are not research or academic fellowships; their main purpose is professional training to advance sustained ocean observations and their applications.

POGO also announces the **POGO Visiting Professorship for 2010**, which allows for a visit by a distinguished scientist from an advanced oceanographic institute to an institute in a developing country or country with economy in transition, to provide training and mentoring, to develop collaborations and to enhance networking. The duration of visits may range from 2 weeks to 3 months. International travel costs for the Visiting Professor will be provided, together with a modest honorarium. Deadline for Applications: 12 April 2010

Further information together with application forms for all three programmes is available on the POGO website at

http://ocean-partners.org/index.php?option=com_content&view=article&id=4&Itemid=36

6. Special Partnership for Observation of the Global Oceans (POGO) Visiting Fellowship

The Partnership for Observation of the Global Oceans (POGO) announces a special Fellowship for on-board training on an Atlantic Meridional Transect (AMT - (www.amt-uk.org)) Cruise. One berth has been reserved on the next AMT cruise for the selected candidate. The programme is designed to promote training and capacity building leading towards a global observation scheme for the oceans.

This fellowship program is open to scientists, technicians, graduate students (PhD) and Post-doctoral Fellows involved in oceanographic work at centres in developing countries and countries with economies in transition.

The selected candidate will have the opportunity to visit either Plymouth Marine Laboratory (PML) or National Oceanography Centre, Southampton (NOCS) in the UK, for one month prior to the start of the cruise to participate in cruise preparation and planning; to go on the cruise (12 October – 25 November 2010) and help make hydrological, bio-optical and ecological observations; and after the cruise to spend one additional month at PML or NOCS, learning to analyse the results statistically and interpret them. Core measurements are planned to include phytoplankton, zooplankton and bacterioplankton diversity, ¹⁴C primary production, nitrogen cycling, respiration, pCO₂, fast repetition rate fluorometry, optics, colored dissolved organic matter (CDOM), pigments and micromolar nutrients.

Total period of Fellowship: 13 September 2010 – 17 December 2010. Candidates should be available to participate for the full period.

Fellowship applicants should complete and submit the application form attached. Only applications that are complete in all respects will be considered for the competition. Deadline: The deadline for the next round of applications is **June 1, 2010**.

Position Announcements

7. Director, International CLIVAR Project Office

EXTENSION of APPLICATION DEADLINE to 18 April 2010

The World Climate Research Programme (WCRP) and the UK's National Oceanography Centre, Southampton (NOCS) invite applications for the position of Director of the International CLIVAR Project Office (ICPO), located at NOCS. The Director of the Project Office takes a

leading role in the development and implementation of CLIVAR under the general guidance of the CLIVAR Scientific Steering Group. The World Climate Research Programme (WCRP) is working closely with its core international Projects (CLIVAR, CliC, GEWEX and SPARC) and their affiliated network of scientists to develop its future programme plan and priorities.

CLIVAR's core mission of observing, simulating and predicting changes in the earth's climate system, with a focus on ocean-atmosphere interactions, will remain a central component of the WCRP research programme. As a member of the WCRP leadership team, the Director of the International CLIVAR Project Office (ICPO) will thus play a significant role in facilitating and coordinating the contributions of the ocean sciences community into this process. For further information on this position and to download an application pack, please visit

http://www.clivar.org/CLIVAR_director_advert.pdf

8. Naval Postgraduate School seeks Assistant Research Professor

The Department of Oceanography at the Naval Postgraduate School seeks applications for an Assistant Research Professor position in the area of sea ice modeling and ice-ocean-atmosphere interaction. The position will be based in Monterey, California.

Applicants must have a doctoral degree in Physical Oceanography, or Atmospheric or Polar Sciences with a minimum of three years of postdoctoral research experience in the subject area. The school specifically seeks a candidate with promise for long-term creativity and research excellence. Priority consideration will be given to the applicants who have strong theoretical, modeling, and observational skills related to sea ice dynamics and thermodynamics.

Demonstrated expertise in sea ice modeling and coupling of sea ice to ocean and/or atmospheric models is required. Experience with employing sea ice models into regional and/or global climate models and use of high performance computing for such applications is highly desired.

The successful candidate will work as part of an interdisciplinary team developing a regional arctic climate model. He/she will also be expected to complement, enhance, and eventually play a leadership role in the ongoing sea ice and polar climate research of the Department of Oceanography. This is a research faculty position that is renewable annually depending upon the availability of reimbursable funds. Therefore the candidate's ability to successfully compete for external research grants and/or contracts is essential.

Applicants should submit a curriculum vitae, a brief (1-2 page) description of research interests, and contact information for at least three references electronically (paduan@nps.edu) or by mail to:

Jeffrey D. Paduan, Chairman
Department of Oceanography, Code OC/Pd
Naval Postgraduate School
Monterey, CA 93943

Meetings and Workshops

9. Scientific Committee on Antarctic Research (SCAR) Open Science Conference 3-6 August 2010 Buenos Aires, Argentina

Call for Abstracts

The session will showcase results from modeling and observational studies of Antarctic climate variability and change (including atmospheric, cryospheric, and oceanographic), their connections with lower-latitude drivers, and their impact on hemispheric and planetary-scale climate.

Scientists at all career stages are encouraged to contribute, including students and early-career researchers.

Abstract Submission Deadline: Thursday, 1 April 2010.

Additional information on the conference, including abstract submission details, are available at:

<http://www.dna.gov.ar/scar2010/>.

Travel Grant Opportunity for SCAR

U.S. faculty, researchers, and students are invited to apply for financial assistance to attend the Scientific Committee on Antarctic Research (SCAR) Open Science Conference. Young investigators, students, and members of underrepresented groups are especially encouraged to apply for funding. The conference theme is "Antarctica: Witness to the Past, Guide to the Future." More than 53 potential sessions have been identified in the preliminary program. It is expected that travel grant recipients will present either an oral or poster presentation. For details about the conference go to the web site: <http://www.dna.gov.ar/scar2010/>.

Additional details and the application form are available by clicking on the 'Travel Grants' link in the sidebar at: <http://www.dna.gov.ar/scar2010/>. You will need to download the Word document entitled 'US Travel Grants - How to Apply and Application Form.' The form must be emailed to Chuck Kennicutt (kennicutt@tamu.edu) no later than **Thursday, 15 April 2010**.

10. NOAA's 35th Climate Diagnostics and Prediction Workshop Raleigh, North Carolina, on 4-7 October 2010 Abstract Deadline: July 2, 2010

The workshop will address the status and prospects for advancing climate monitoring, assessment, and prediction, with emphasis in three major themes:

- (1) Use of climate data records including satellite data, climatologies for improving climate predictions/predictability, and understanding and attribution of climate variability and its impacts;
- (2) Improving climate services through development and delivery of climate models, applications, and products in support of adaptation strategies;
- (3) Improving coastal monitoring and prediction in support of assessing climate impacts in the coastal zone.

The workshop will feature daytime oral presentations, invited speakers, and panel discussions with a poster session event on one evening.

A Web site for the workshop information and abstract submission will be linked through: <http://www.cpc.ncep.noaa.gov/products/outreach/CDPW35.shtml>. To submit an abstract, please go to the abstract submission link (available shortly) and fill out the abstract form.

11. Ocean Carbon and Biogeochemistry summer workshop July 19-22, 2010 at the Scripps Institution of Oceanography <http://www.whoi.edu/workshops/ocbworkshop2010> Registration deadline is June 15, 2010.

The meeting will highlight the following three interdisciplinary science themes:

- *Arctic* - Co-chair: Walker Smith (VIMS)
- *Low oxygen regions* - Co-chair: Kendra Daly (USF)
- *Benthic-pelagic coupling* - Co-chair: Lisa Levin (SIO)

Within these themes, we are especially keen to address nitrogen cycling, ecological tipping points, and strengthened connections between experimentalists and modelers. Over the next two weeks we are seeking OCB community feedback on:

Plenary session co-chairs:

Two co-chairs per session;
Plenary session talk topics;
Plenary session speakers

When suggesting potential topics and speakers, please bear in mind that the plenary talks are expected not only to highlight an individual's and/or community's research, but also to address how the work fits into the bigger picture, providing a more holistic perspective of research needs, accomplishments, and new directions. We ask that the speakers appeal to the interdisciplinary audience typically in attendance at this meeting by posing compelling questions that will stimulate broader community interest and discussion.

If interested, please provide your feedback on the 2010 OCB Summer Workshop by Wednesday, April 7, 2010.

12. Workshop on expanding the AfricaArray seismic network to support multidisciplinary science in Africa

June 2-4, 2010 in Washington D.C. at Howard University

The purpose of the workshop is to bring together U.S. scientists and program managers engaged in geoscience research in Africa and their African collaborators to examine and codify the scientific rationale for expanding the AfricaArray seismic network [see <http://www.africaarray.psu.edu/>] into a multidisciplinary science network. The workshop will assemble participants from a range of science fields that are interested in exploring the benefits of a single instrumentation initiative addressing the science needs of several geoscience disciplines, including, but not limited to, atmospheric science (including climate), geodesy, geography, hydrology, seismology, and space weather. Please feel free to pass this information on to other colleagues as you see fit.

Registration and other information for the workshop can be found at: <http://africaarray.unavco.org/>; and for more information on either the AfricaArray or the workshop, please contact Dr. Andrew Nyblade from Penn State's Department of Geosciences either via e-mail at nyblade@psu.edu or via phone at 814-863-8341.

13. 17th Air-Sea Interaction Conference 27 September - 1 October, Annapolis MD May 3rd is the deadline for abstracts

Conference information website, including abstract submission instructions:
<http://www.ametsoc.org/MEET/fainst/201017asi17sm9caopp.html>

14. Climate System Model (CCSM) project at the National Center for Atmospheric Research (NCAR) modeling tutorial 12 – 16 July 2010 in Boulder, Colorado

The focus will be on modeling of the coupled climate system and its major components. The tutorial is targeted at graduate students who wish to learn how to understand, run, and modify climate models for scientific applications. The focus will be on CCSM specifically. Specific content will be tailored to meet students' needs. The tutorial will last 5 days and include: (a) Lectures on climate modeling, focusing on techniques and approaches in CCSM (b) Practical sessions on running and modifying the components of CCSM

Because space will be limited to 40 students, we are asking for a brief on-line application to balance attendees across institutions and for distributing funding. Click here to apply: <http://www.regonline.com/Checkin.asp?EventId=829755> Please apply in one of three categories: (a) participant requesting full travel support (airfare, per diem, lodging, local ground

transportation) (b) participant requesting partial support (per diem, lodging, local ground transportation) (c) participant requesting no support

Application deadline is 15 April 2010. We expect to notify participants by 1 May 2010 with the status of your request to attend the tutorial and what level of funding we are able to provide to you.

**15. Deep Ocean Workshop: Observed and Model-Simulated Property Changes in the Deep Ocean of the Southern Hemisphere
Hobart, Australia, 21-23 June 2010**

For more information, contact Bernadette Sloyan at: bernadette.sloyan@csiro.au

ANNOUNCEMENTS:

- **VAMOS Newsletter**

http://www.clivar.org/organization/vamos/Publications/vamos_nl6.pdf

The printed version of the VAMOS Newsletter appears as a supplement of CLIVAR Exchanges. The full electronic version of Exchanges 52 with the VAMOS Newsletter can be downloaded at <http://eprints.soton.ac.uk/73180/01/Exch52.pdf>

- **WCRP e-zine No.17**

http://wcrp.wmo.int/documents/WCRP_17Ezine_Mar10.pdf

To subscribe, follow the link: <http://wcrp.wmo.int/ezinesubscribe.html>

- **Go-Ship News**

GO-SHIP held an all-day international planning meeting on 21 February in Portland, Oregon in conjunction with the 2010 Ocean Sciences meeting. Approximately 50 participants from 12 countries discussed on-going and planned cruises and the way forward with the development of an international program. Participants reviewed reference sections and made modifications to the strategy based on feasibility of occupation and occupation frequency. Participants also decided that information about measurements planned for upcoming cruises is needed to assess whether cruises are making the full suite of measurements, and if not, to arrange collaborations if possible. Chief scientists are encouraged to advertise any free berths that may be available on their cruises for potential collaborations. It was also agreed that an oversight committee on data management was needed to develop strategies for global coordination of data assembly for hydrography variables. A report of the meeting and presentations are now available on the Web at www.go-ship.org or you may download the report directly (pdf 2Mb) at http://www.go-ship.org/Docs/GO-SHIP3_final.pdf

Other news:

2010 AR02 Cruise Berths Available

The 2010 German AR02 cruise has 3 berths available for groups doing nutrients and carbon. This section was occupied in 2007 (full section) and the western part was reoccupied in 2009. Funding exists for reoccupations in 2010-2013. For more information, contact Monika Rhein: mrhein@physik.uni-bremen.de