May 2013 U.S. CLIVAR Newsgram

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## Calendar of Upcoming Events

*also see our online calendar*

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<td>Second China-U.S. Symposium on Meteorology: Severe Weather and Regional Climate Variability and Predictability</td>
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<td>12th International Meeting on Statistical Climatology</td>
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<td>AGU Science Policy Conference: Preparing for Our Future</td>
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<td>July 22-26, 2013</td>
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Upcoming U.S. CLIVAR Events

U.S. CLIVAR International Workshop - Understanding the Response of Greenland’s Marine Terminating Glaciers to Oceanic and Atmospheric Forcing
Wylie Conference Center, Beverly, MA
June 4-7, 2013
Registration/Abstract submission closed. Agenda available online.

U.S. CLIVAR Hurricane Workshop
GFDL, Princeton, NJ
June 5-7, 2013
Abstract submission closed; Registration open.

U.S. CLIVAR Summit (by invitation)
Loews, Annapolis, MD
July 9-11, 2013

U.S. AMOC/U.K. RAPID International Science Meeting ‘AMOC Variability: Dynamics and Impacts’
Hilton Baltimore, Baltimore, MD
July 16-19, 2013
Registration open; Agenda available online.

U.S. CLIVAR Extremes Workshop - Analyses, Dynamics, and Modeling of Large Scale Meteorological Patterns Associated with Extreme Temperature and Precipitation Events
LBNL, Berkeley, CA
August 20-22, 2013
Abstract Submission Deadline Extended 5/29.

NCAR ASP Researcher Workshop:
Key Uncertainties in the Global Carbon - Cycle: Perspectives across terrestrial and ocean ecosystems
Mesa Lab/UCAR, Boulder CO
August 6-10, 2013
Registration/Abstract submission closed.

Announcements

1. U.S. CLIVAR High Latitude Surface Flux Working Group Article in BAMS

The members of the U.S. CLIVAR High Latitude Surface Flux Working Group have published an article in the March 2013 edition of BAMS, “High-Latitude Ocean and Sea Ice Surface Fluxes: Challenges for Climate Research.” The paper describes the scientific requirements for surface fluxes at high latitudes and identifies how current flux products fail to meet these requirements. The authors offer suggestions to improve high latitude flux estimates which includes a multidisciplinary approach with in-situ measurements and satellite remote sensing.

2. Public Comment Period Open: NOAA 5-Year R&D Plan

The National Oceanic and Atmospheric Administration (NOAA) Research Council has drafted the NOAA Five Year Research and Development (R&D) Plan. The plan was formulated with input from across the agency, as well as key stakeholders. NOAA is now seeking public input to help set the course for future R&D efforts. The public comment period will close June 3, 2013.

The plan will be revised based on comments received during this public comment period. NOAA anticipates releasing the final version of the 5-Year Research and Development Plan in Summer 2013. To provide comments, please visit the NOAA website and follow the instructions.
3. Call for Papers: Special Issue in Climate on “Sea-Ice-Climate Feedbacks”

You are invited to submit a paper to the Special Issue: “Sea-Ice-Climate Feedbacks” that will be published in Climate (ISSN 2225-1154), and that is now open to receive submissions of full research papers or outstanding long reviews for peer-review and possible publication.

Incidents like U-boots surfacing and meeting at the North Pole, ships using the East-North passage and the break-off of the Larsen Ice Shelf or other ice shelves alerted the public about changes in sea-ice. Sea-ice is one of the hardest systems to model as it is affected by the ocean and atmosphere. Furthermore, the sea-ice extend changes strongly in response to the atmosphere and ocean currents. Recent studies also show links between sea-ice and vegetation. The goal of this special issue is to discuss newest findings of the role of sea-ice in the climate systems, its feedback to other parts of the climate system, sea-ice processes as well as the climatology related to temporal and spatial changes in sea-ice extend.

You may send your manuscript now or up until the deadline **July 9, 2013**. Submitted papers should not have been published previously, nor be under consideration for publication elsewhere. We also encourage authors to send us their tentative title and short abstract by e-mail for approval to the Editorial Office.

This Special Issue will be fully open access. Open access (unlimited and free access by readers) increases publicity and promotes more frequent citations as indicated by several studies. Open access is supported by the authors and their institutes. More information is available [here](#).

Article Processing Charges (APC) are waived for well prepared manuscripts in 2013. However, a fee may apply if English editing or extensive revisions must be undertaken by the Editorial Office. For details see [here](#). Please visit the Instructions for Authors before submitting a manuscript. Manuscripts should be submitted through the online manuscript submission and editorial system. In case of questions, please contact the Editorial Office.

4. Nimbus 1 HRIR Heritage Data Set Archived at the NASA GES DISC

The National Aeronautics and Space Administration (NASA) Goddard Earth Sciences Data and Information Services Center (GES DISC) has recently completed the data archival process for the historical High-Resolution Infrared Radiometer (HRIR) data set from the Nimbus-1 satellite. The Nimbus series of satellites was the second-generation of meteorological research and development (R&D) spacecraft designed for the testing of advanced systems to sense and collect atmospheric science data. The Nimbus missions proved that many different kinds of observations could be made from space, setting the stage for subsequent, more advanced satellite sensors. Today, this data provides historical information useful for climate studies.

The data access page for Nimbus heritage data sets is [online here](#). More information about the Nimbus-1 HRIR is provided [online here](#). Longer article, with more information about HRIR and the archival process (and a Nimbus 1 HRIR image) [online here](#).

5. GOZCARDS Data Available Through MEaSUREs and GES DISC

The Goddard Earth Sciences Data and Information Services Center (GES DISC), in collaboration with Principal Investigator Lucien Froidevaux, is pleased to announce the release of the ozone (O3), water vapor (H2O), nitric acid (HNO3) and nitrous oxide (N2O) zonal means data products from the “Global Ozone Chemistry and Related trace gas Data Records for the Stratosphere (GOZCARDS)” project, part of the
NASA Making Earth Science Data Records for Use in Research Environments (MEaSUREs) Program. These products include monthly merged and source data for the above species. Additionally, data for 2011 and 2012 from the previously released hydrogen chloride (HCl) and “MERRA-based” temperature (T) zonal mean data products are now available. Other GOZCARDS products are planned for later in 2013. Users should review the README document for additional information. Information on these data, including the README document, and access to the data are available at online here.

6. Call for Members: U.S. Advisory Committee for Scientific Ocean Drilling and the Advisory Panels to the JOIDES Resolution Facility Board

The Consortium for Ocean Leadership, in association with the International Ocean Discovery Program (IODP), is seeking new U.S.-based members for the U.S. Advisory Committee for Scientific Ocean Drilling (USAC) and the Advisory Panels to the JOIDES Resolution Facility Board, specifically the Proposal Evaluation Panel and Site Characterization Panel. We are also seeking both U.S. and international members for the JOIDES Resolution Facility Board. New members will serve three-year terms beginning in October 2013.

Scientists interested in volunteering for these opportunities should send a cover letter and a two-page CV to Charna Meth by June 5, 2013. Letters should clearly indicate your primary field of expertise, briefly document any previous committee experience, describe your interests in the scientific ocean drilling programs, and identify your preferred panel or committee assignment. We strongly encourage the involvement of early career scientists, as well as those with more experience. For more information, visit our page here.

7. Updated Year of Tropical Convection (YOTC) Website

The Year of Tropical Convection (YOTC) website has been redesigned and now at yotc.ucar.edu. It contains some new parts, e.g., YOTC Related Projects. The old website address has been redirected to the new one.

8. Ocean Modelling CORE-II Special Issue

Coordinated Ocean-ice Reference Experiments (COREs) were proposed by the WCRP/CLIVAR Working Group on Ocean Model Development (WGOMD) as a venue for comparing global ocean-sea ice models run under a common prescribed atmospheric state, with boundary fluxes computed via the same bulk formulae. CORE simulations complement the coupled climate and earth system models models run for the Coupled Model Intercomparison Project (CMIP). Efforts across a broad community of modelling groups have produced CORE simulations (CORE-II) using 60 years (1948–2007) of inter-annual forcing, with details of the protocol and participating groups available from the WGOMD web site.

Ocean Modelling solicits manuscripts that document aspects of the CORE-II simulations. Manuscripts should compare simulations across a suite of models, as well as to observational analyses where available. The journal is particularly interested in manuscripts that thoroughly and pedagogically document the state-of-the-science in a particular aspect of global ocean-sea ice modelling available through the CORE-II protocol. Ocean Modelling will publish peer-review CORE-II papers in a virtual Special Issue, meaning that accepted papers will appear in the journal as per a normal submission, but will be stamped as part of the CORE-II Special Issue and will be linked online to other CORE-II papers. See this webpage for more details. The deadline for acceptance into the CORE-II Special Issue is December 31, 2014.
9. New Drought Analysis and Monitoring Tool and Website

New website by the Spanish National Research Council (CSIC) that focuses on the Standardized Precipitation Evapotranspiration Index (SPEI), a recent tool for the analysis and monitoring of droughts. The web portal provides information on the SPEI and provides access to a global SPEI database that can be obtained at time scales ranging from 1-48 months.

The database has been created from information on precipitation and potential evapotranspiration published by the Climate Research Unit of the University of East Anglia. The information covers the period 1901-2011 at a spatial resolution of 0.5°. This database can be downloaded in its entirety in netCDF format, or by selecting a specific pixel coordinates.

The site also provides a portal that allows the monitoring of real-time drought conditions from SPEI worldwide. The portal allows visualization mapping of the SPEI values at different time scales (3, 6, 9, 12, 24, 36 and 48 months) and time series of the selected areas (either a specific pixel or frame). This information can also be downloaded in netCDF format (the entire database), the pixel of interest or the means of a user-specified frame.


As mandated by the Global Change Research Act (GCRA), the U.S. Global Change Research Program is currently producing a “National Climate Assessment” (NCA). The NCA is a report to inform the President, the Congress, and the American people about the current state of scientific knowledge regarding climate change effects on U.S. regions and key sectors, now and in the coming decades. This document contains an evaluation of the draft NCA report, presented through consensus responses to the Panel’s Task Statement questions, and through a large collection of individual Panel member comments and suggestions for specific chapters, statements, figures, etc. While focusing primarily on practical suggestions for immediately improving the current draft, the Panel also raises some broader considerations about fundamental approaches used in certain parts of the NCA report, and about the scope of USGCRP research that underlies the NCA findings. Some suggestions can be viewed as longer-term advice for future versions of NCA work. Read and download the review online here.

11. Atmospheric Infrared Sounder (AIRS) Version 6 Level 3 Data Now Available

The Atmospheric Infrared Sounder (AIRS) Version 6 Level 3 Data are now available from the NASA Goddard Earth Sciences Data and Information Services Center (GES DISC). The AIRS Project and GES DISC are pleased to announce the availability of Aqua AIRS Version 6 Level 3 data. The AIRS Version 6 processing code has a number of improvements in addition to the Level 2 improvements from which it is built. Three of the significant changes for the Version 6 Level 3 data include:

- Level 3 support products which contain profile data at 100 vertical levels are now available.
- A TqJoint grid is available which contains gridded data for a common set of temperature and water vapor observations.
- Water vapor and trace gas products are now reported both as layer and level quantities.

Additional information on and access to these data is available here.
Meetings and Workshops

1. **2013 National Center for Atmospheric Research/Centers for Disease Control and Prevention Colloquium on Climate and Health**
   
   **NCAR, Boulder, CO**
   
   **July 9-12, 2013**

   The 2013 NCAR Workshop on Climate and Health will focus on two related atmospheric hazards, the individual and combined effects of extreme heat and air pollution on human health. The purpose of the workshop is to train graduate students, postdocs, and early career scientists/faculty on how to develop robust interdisciplinary research projects in the complex area of climate and health. The 4 day workshop will take place from July 9-12, 2013 and will include lectures on relevant topics in climate and climate change and in public health and human health, vulnerability studies, urban studies, statistics, and special tools for analysis (e.g., GIS or NCAR model output datasets). In addition, a few successful research projects will be highlighted, providing detailed analyses of the methods and components of the projects that led to their success. There also will be multiple opportunities to engage public health practitioners and climate scientists to discuss the integration of epidemiology, ecology, behavioral science, modeling and atmospheric science.

2. **Second Workshop on Pliocene Climate**
   
   **Bristol, UK**
   
   **September 9-10, 2013**

   This workshop aims to bring together approximately 75 scientists from the proxy data and modelling communities to identify the most pressing research questions for the international Pliocene community and to identify gaps in our current understanding of this crucial interval. Research themes include but are not limited to the following:

   - Resolving forcing mechanisms of Pliocene warmth
   - The relationship between changes in mean state and variability
   - Linking physical and biogeochemical dynamics during the Pliocene
   - Continental climate during the Pliocene
   - Lessons from the Pliocene - what have we learned about future climate change?

   Registration is £72 for the two-day workshop (including lunch). To apply please send an abstract of no more than 400 words to pliocene-workshop@bristol.ac.uk before June 1, 2013. Limited funding is available to support early career scientists (including PhD students) and those otherwise unable to attend. To apply for funding please send a CV to pliocene-workshop@bristol.ac.uk together with your abstract and clearly indicate why you request financial support. The conveners in consultation with the scientific committee will make funding decisions.

3. **WCRP VAMOS/CORDES Workshop on Latin-America and Caribbean**
   
   **Lima, Peru**
   
   **September 11-13, 2013**

   The VAMOS/CORDEX Workshop on Latin-America and Caribbean, CORDEX LAC: Phase I - South America brings together the international community of regional climate scientists to pursue an initial assessment...
of the various CORDEX downscaling initiatives over the South American and Central American CORDEX domains, to develop regionally focused vulnerability, impact and adaptation (VIA) user-knowledge, and to identify stakeholders’ needs so as to support the science-based information required for climate adaptation, mitigation and risk management in the region.

This event will provide a forum for addressing the following topics:

- Regional climate downscaling products for model evaluation, assessment of regional climate change projections and associated uncertainties, including extreme events.
- Vulnerability, impacts and adaptation analysis on key sectors (hydrology, agriculture, water resources, and health, among others).
- Implications for sustainable development and policy-making - building capacity contributing to a global framework for climate services.

The primary workshop focus will be on designing standard analysis procedures for the CORDEX South America and Central America outputs, on applying these methods in the context of the VIA needs, and on training the workshop participants on interpreting these results critically. The on-line call for abstracts, financial support applications and registration for the CORDEX LAC workshop are now open. Deadline for abstract submission and support applications is **June 1, 2013**.

4. **3rd NCAR-NCAS Workshop for WFR Model Users**  
   **York, UK**  
   **October 8-13, 2013**

The third jointly-run NCAR-NCAS workshop and tutorial for European-based users of the WRF Model will be held at the [Novotel Hotel](#) in York, England. A workshop on WRF modelling research will be held on the first day (Monday, October 7, 2013), where participants will have the opportunity to present their work. The WRF course will take place from October 8-11, 2013, in the form of tutorials (including practical sessions) where the emphasis will be on WRF functionality and use of the model. This year, there will also be a WRF-Chem course for users of this model. This will take place from October 12-13, 2013.

WRF course tutors will include Joe Klemp, Bill Skamarock, Jimy Dudhia, Dave Gill, Michael Duda, Cindy Bruyere, and Wei Wang. WRF-Chem course tutors will include Georg Grell and Steven Peckham. Visit the [event website](#) for more information and registration. Registration deadline is **June 28, 2013**.

5. **WMO Commission for Atmospheric Sciences Fifth International Workshop on Monsoons (IWM-V)**  
   **Macao, China**  
   **October 28 - November 1, 2013**

The IWM series is a part of the WMO major quadrennial symposia and workshops series under the World Weather Research Programme (WWRP). High priority is given to this IWM Series in response to the CAS guidance that WWRP should focus on research for the reduction of disaster risks through improved forecasts of high-impact weather.

IWM-V is organized by the Monsoon Panel of the WWRP Working Group on Tropical Meteorology Research. It provides a forum for researchers and forecasters to discuss recent advances and current issues covering all time scales (meso-, synoptic, extended range, intraseasonal, climate) that are relevant to the forecasts of
high-impact weather in the monsoon regions around the world. It is also an effective means to transfer new science and technology to National Meteorological and Hydrological Services in these monsoon regions.

The workshop will include both invited reviews and contributed oral and poster papers. The invited reviews will form the basis of manuscripts to be published as chapters in a WMO-sponsored book: The Global Monsoon System: Research and Forecast, III. In addition to the main host, the Government of Macao SAR China, IWM-V and associated and coordinated activities will be organized in cooperation with Hong Kong Observatory, Hong Kong Meteorological Society, CLIVAR Asian-Australian Monsoon Panel, Madden-Julian Oscillation Task Force, and Asian Monsoon Year Science Steering Committee. The last day’s (November 1, 2013) sessions will take place in Hong Kong in which invited lectures that are of high relevancy to forecast applications will form the content of a WMO Monsoon Training Workshop. IWM-V participants are also invited to attend the Hong Kong Meteorological Society 25th Anniversary Celebration and Conference on Meteorology and Climate in East Asia and Western Pacific, scheduled for November 2-4, 2013. Abstracts (1 page) due: June 30, 2013. Please email to wmo2013iwmv@gmail.com.

6. Third International Regional-scale Workshop on 21st Century Challenges in Regional Climate Modelling
Lund, Sweden
June 16-19, 2014

The workshop is a follow-up to the regional climate modelling workshops held in Lund, Sweden in 2004 and 2009. Developments and progress achieved in the last five years will be presented and discussed along with open issues and expected future challenges related to regional climate modelling. The meeting will cover a wide range of RCM-related topics, from basic research - such as theoretical aspects of numerics and parameterisations - to applications.

Topics of the workshop are Regional Climate and Earth System Models; Very-high-resolution RCMs; Challenges for RCM evaluation and application; and RCM Ensembles. Download the first flyer for the workshop here.

Position Announcements

1. Two Tenure Track Assistant Professor Positions
Dept. of Marine Science Marine Chemistry, The University of Southern Mississippi

The University of Southern Mississippi Department of Marine Science at the Stennis Space Center is offering a tenure-track position in marine chemistry at the assistant professor level. Applicants must hold a Ph.D. in oceanography or a related field and have demonstrated field and laboratory research experience. Post-doctoral experience is desirable for assistant-level applicants. The successful candidate is expected to conduct an active research program and develop courses for an interdisciplinary academic program for graduate and undergraduate students. The successful candidate must also demonstrate a commitment to collaborative research and teaching. The position offers opportunities to collaborate with biological, physical and geological oceanographers, modelers, paleoceanographers and hydrographers to address complex oceanographic problems. Information is available online about the department.

Applicants should submit a letter of interest outlining their qualifications for the position, including a research plan, teaching philosophy with a curricular plan, a curriculum vitae, and names and contact infor-
The University of Southern Mississippi’s Department of Marine Science at the Stennis Space Center is offering a position in hydrographic science at the tenure-track, assistant or associate professor level. Applicants should hold a Ph.D. in a hydrographic science, marine science, ocean engineering or closely related field and have demonstrated field and research experience in acoustics, acoustic and LIDAR-based hydrographic and bathymetric surveying, and precise positioning at sea, and proficiency in commercial software packages used to collect and process hydrographic data. Also desirable is the application of hydrographic technologies including acoustics and LIDAR to collaborative opportunities in marine science fields such as fisheries and biological oceanography, marine geology and physical oceanography. A nationally recognized record of publication, demonstrated successful grantsmanship, and at least five years of service at a degree-granting institution or equivalent service at a non-degree-granting institution are needed at the associate level. A successful candidate is expected to conduct an active research program and participate in the hydrographic science master’s program, which is recognized at the Category-A (Cat-A) level by the International Hydrographic Organization. The latter efforts include curricula review, delivery and development of the program, and faculty experience in delivering a Cat-A hydrographic science curricula is highly desirable. The development of courses for an interdisciplinary academic program for undergraduate students is also expected. The successful candidate must demonstrate a commitment to collaborative research and teaching. The position offers opportunities to collaborate with biological, physical, geological and chemical oceanographers, and modelers, to address complex coastal problems. Information is available online about the department.

Applicants should submit a letter of interest outlining their qualifications for the position, including a research plan, teaching philosophy with a curricular plan, a curriculum vitae, and names and contact information of at least four references. Applications must be submitted online here. For inquiries about the position, contact Dr. Stephan Howden, chair of the Search Committee. Review of applications begins April 22, 2013, and continues until the position is filled, with an anticipated start date in August 2013.

2. **Tenure Track Assistant Professor Position in Climate Modeling**
**Purdue University, West Lafayette, IN**

Purdue University in conjunction with the Purdue Climate Change Research Center (PCCRC) invites applications for a faculty appointment in the area of climate modeling. This is a full-time, tenure track assistant professor position with an appointment in the department or departments most appropriate for the successful candidate. The PCCRC serves as a focal point for interdisciplinary research on climate change and its ecological, social, economic, and political impacts, and it is a hub for cross-college collaborations at Purdue. We seek a dynamic, broad-thinking scholar to establish an internationally recognized research group in the development of climate models and/or applications with the aim of better understanding the physical processes and feedbacks in the climate system. The successful candidate will also show promise of excellence in teaching and mentoring graduate and undergraduate students.

Applicants are expected to have a Ph.D. degree in Atmospheric Science or Geosciences by start of the appointment. We are particularly interested in candidates excited to pursue interdisciplinary collaborations through the PCCRC. Established in 2004, the PCCRC is a collaborative, faculty-led center that brings together natural scientists, social scientists, and engineers in an integrative setting. Center faculty have a broad range of research interests that span spatial and temporal scales. The PCCRC is also engaged in ongoing efforts to bring climate science information to public and private decision makers, and opportunities exist
for the successful candidate to participate in the Center’s many forms of formal and informal educational activities. Purdue University has notable strengths and resources in computation science, simulation, and data mining through the CyberCenter and the Rosen Center for Advanced Computing (RCAC). The RCAC provides advanced computing resources and support services including access to leading-edge computational and data storage systems, as well as expertise in a broad range of high-performance computing activities, to support the computationally-intensive research of Purdue faculty, staff, and research partners, nationwide.

Applications are to be submitted online at and should include a cover letter, current CV (including a list of refereed publications and record of funding), one to three examples of research products (e.g., papers, technical reports, code), statement of research interests, statement of teaching interests – including pedagogical philosophy, and the names and contact information of three referees. Initial review of applications will begin on August 19, 2013, but the position will remain open until a suitable pool of candidates is identified. Questions about the position should be directed to Matthew Huber.

3. Tenure-track Faculty Position in Coastal Human-Environment Systems
Environmental Earth System Science/Earth Sciences, Stanford University and Woods Institute for the Environment

Stanford University seeks an innovative scholar to fill a tenure-track faculty position in the area of human-environment interactions in coastal zones. The successful candidate is expected to be an active participant in both the Department of Environmental Earth System Science and the Center for Oceans Solutions (COS) in the Stanford Woods Institute for the Environment. EESS is an interdisciplinary department with a research focus on current and future environmental problems. COS is a collaboration among Stanford University, the Monterey Bay Aquarium, and the Monterey Bay Aquarium Research Institute that works to solve the major problems facing the ocean and prepares leaders to take on those challenges.

The appointment will be joint between the Department of Environmental Earth System Science and the Stanford Woods Institute. The level of the appointment is open, with a preference for candidates at the junior rank. We seek a motivated, broad-thinking scholar whose research bridges the natural science and human dimensions of the coastal environment, with a focus on understanding how human and biophysical processes interact to affect the structure and function of marine and coastal systems. The successful candidate is expected to establish a vigorous research program that employs strong analytical methods. The successful candidate is also expected to teach classes and mentor graduate students in the Department of Environmental Earth System Science, to teach in the interdisciplinary environmental programs offered at Stanford (such as Earth Systems and the Emmett Interdisciplinary Program in Environment and Resources), and to be a leader in the broader oceans and marine communities at Stanford, including through active leadership of campus-wide interdisciplinary oceans initiatives.

The position will involve research and teaching at Stanford’s main campus, with close ties to Hopkins Marine Station and to COS partners and collaborators. Given the mission of COS, we are particularly interested in candidates with a desire to engage the public about scientific issues regarding coastal systems. Applications containing a cover letter, curriculum vitae, and statements of research and teaching experience and interest should be included with your submission. Please apply online here. Position ID:#2644. The search committee will request letters of recommendation for a subset of applicants following review of these materials. Review of applications will begin on June 1, 2013, and continue until the position is filled.
4. Faculty Position
Atmospheric Sciences Department, Universidad Nacional Autónoma de Mexico

A position is currently available for well-established scientists working on the general convection and tropical cyclones would be particularly desirable. The successful applicant would join the faculty of the Atmospheric Sciences Department within the center undergraduate or graduate level (1 course per year is expected). The Center for Atmospheric Sciences carries out basic and applied research in atmospheric and environmental sciences. It is part of the Universidad Nacional Autónoma de Mexico, the largest university in Mexico. The position is currently available at the highest pay level within UNAM and includes medical benefits. Potential candidates please contact Dr. Graciela Raga for more information about the position. To apply, please send a letter of intent and a current CV (with list of publications) to Dr. Raga. There is no deadline for applications, which will continue to be received until the position is filled.

5. Two Visiting Scientist Positions
Bard Center for Environmental Policy, Annandale-on-Hudson, NY

Bard Center for Environmental Policy Environmental Science Visiting Scientist, Fall 2013: The Bard Center for Environmental Policy has an opening for a visiting scientist to teach a fall semester course in environmental science in our MS in Environmental Policy Program. The successful candidate will have a demonstrated record of excellence in teaching. PhD preferred, ABD considered. For more information about the program, please visit our site here. To apply, please send cover letter, CV, writing sample (no more than 25 pp.), and names and contact information for three references online here. Applications will be reviewed as received.

Bard Center for Environmental Policy Climate and Climate Change Science - Visiting Environmental Scientist, Fall 2013: The Bard Center for Environmental Policy has an opening for a visiting Environmental Scientist to teach an annual fall semester course in climate and climate change science in our MS in Climate Science and Policy Program. The successful candidate will have a demonstrated record of excellence in teaching. PhD preferred, ABD considered. To apply, please send cover letter, CV, writing sample (no more than 25 pp.), and names and contact information for three references online here. Applications will be reviewed as received.

6. Senior Climate Scientist
Union of Concerned Scientists, Climate & Energy Program, Washington, DC

Under the direction and supervision of the Union of Concerned Scientists (UCS) Director of Program Development research, scope, and develop longer term analytical products to advance the climate campaign in future years, covering topics including climate impacts and energy sector resilience to climate change. Collaborate extensively with the Senior Climate Scientist, Climate Campaign Analytic Lead to conceptualize, develop, and/or review immediate and major campaign products on climate science, ensuring scientific accuracy while striving for public understanding. Serve as a UCS resource for media, outreach and policy activities by providing robust, timely, accessible and policy-relevant information on certain climate science and impacts topics. Provide expert technical and analytical advice for Climate Program Development and the Climate Campaign, as needed.

Responsibilities: Climate Science Program Development. Provide leadership in identifying and developing relevant analytic and research projects that will feed into the climate campaign in future years, working
with the Climate Campaign Analytic Lead. Scope new ideas, develop project plans and assess the idea's promise, and implement work on promising ideas. Likely areas of work include analysis of climate impacts, and contributing to a multi-disciplinary team assessment of how climate change will affect the resilience of key aspects of the energy system.

Qualifications and experience: Position requires an in-depth knowledge of climate science and impacts and demonstrable ability to understand the public policy aspects of climate change and the role of technical analyses and advocacy in informing public opinion and policy debates. Position also requires strong public speaking skills, a demonstrable ability to write for non-technical audiences, and the ability to work both independently and as a member of a multidisciplinary team. PhD in a relevant field required. At UCS, comparable training and/or experience can be substituted for degrees when appropriate.

Work requires a strong background in climate change science and impacts and five to seven years of relevant work experience, including communicating science to a wide variety of audiences, especially the media. Experience with the application of climate science to public policy a plus. Strong communication and teamwork skills are essential. Extensive experience managing scientific and technical groups while utilizing project management techniques and supervising research staff is desired. Compensation, Hours and Location: This is a full-time position based in UCS’s Washington, DC office. For candidates who meet all position requirements, the salary is in the high 80’s. UCS offers excellent benefits and a rewarding work environment, and is an equal opportunity employer continually seeking to diversify its staff and to broaden opportunities for individuals from demographic groups that are historically underrepresented in the sciences and in environmental advocacy.

To Apply: Please see here for full position details. Please submit a cover letter, a writing sample in which you communicate science for a general audience, salary requirements, how you learned about the position and resume via email and include Climate Scientist in the subject line. Email materials in Word or PDF format only. No phone calls please. Deadline: May 12, 2013 or until filled.

7. Research Scientist
Climate Dynamics, Alfred-Wegener Institute, Bremen, Germany

The Alfred-Wegener Institute (AWI) Climate Dynamics section seeks to appoint a Scientist with a background in oceanography and ocean modeling. Background and tasks: Research will be performed within the framework of the program Science Partnerships for the Assessment of Complex Earth System Processes (SPACES) funded by the German ministry for education and research (BMBF). The focus of the project will be on improving the understanding of the dynamics of the Agulhas Current System and its regional and global relevance using numerical simulations. The scientist will be responsible for setting up and running the global Finite Element Sea-ice Ocean Model (FESOM) with refined mesh resolution for the Agulhas Current System region. A suite of experiments with different regional mesh resolutions will be carried out in close collaboration with the project partners. The successful applicant will be responsible for adjusting the computational mesh, setting up and tuning the system, running the experiments on supercomputers, analyzing the results, participation in scientific conferences and publication in peer reviewed journals.

Requirements: PhD in oceanography, climate science, physics or mathematics. Demonstrated skill/proficiency in Fortran or C, fluency in English. Furthermore, experience with configuring and running ocean circulation models and experience in publishing in the peer-reviewed literature are all distinct advantages.

Length of contract: 3 years. Starting date: July 1, 2013 or later. Salary: Payment in accordance with the German Tarifvertrag für den öffentlichen Dienst (TvöD), salary group 13.
For further information email: **Prof. Dr. Thomas Jung**; Phone: +49(0)471-4831-1761) or **Dr. Qiang Wang**; Phone: +49(0)471-4831-1767). Applications including CV, statement of research interest and degree certificates, plus reference code 52/D/KLI should be submitted by **May 31, 2013** via postal mail to: Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung, Personalabteilung, Postfach 12 01 61, 27515 Bremerhaven.

8. **Postdoctoral Research Opportunity**  
**University of Maryland and NOAA-NESDIS**

We invite applications for a postdoctoral research position to work with our team in the area of satellite ocean remote sensing and coastal water quality. The postdoctoral position will offer research opportunities in developing ocean remote sensing applications to better detect the extent, timing, and frequency of contaminant-laden plumes and associated impacts (e.g., eutrophication, algal blooms, human health) in coastal waters in response to land use and climate change. The immediate project involves linking ocean color remote sensing data/products with in situ measurements (and potentially modeling approaches) in the Chesapeake Bay to track sources and impacts relative to hydrologic and climatic variability. The broader goal is to use this region as a pathfinder and extend the approach/methods to other coastal regions, and provide relevant information for management and decision-making.

The successful candidate will have a Ph.D. in earth sciences, biogeochemistry, ecology, and/or (coastal) oceanography with strong skills in remote sensing. Experience with IDL, Matlab, R or other scientific data analysis, statistical and graphing software packages is essential. The candidate must be able to work in an interdisciplinary environment and have an interest in linking scientific research with management of coastal ecosystems and biogeochemical cycles. The position is initially for 12 months with possibility of extension to two years. Interested candidates should send a CV with a list of at least 3 professional references and a cover letter explaining how your qualifications meet the posted requirements to anegri@essic.umd.edu. Any questions can be directed to Dr. Paul DiGiacomo, Dr. Sujay Kaushal, or Marilyn Murphy.

9. **Postdoctoral Position in Southern Ocean Biogeochemistry**  
**Duke University, Durham, NC**

A postdoctoral position in surface ocean biogeochemistry is available in the Division of Earth and Ocean Sciences (EOS) of the Nicholas School of the Environment at Duke University. The research project revolves around net community production (NCP) in the Southern Ocean, with opportunities for participation in research cruises. See here for more information regarding projects related to Southern Ocean NCP. The work will be in collaboration with Adrian Marchetti’s lab at UNC-Chapel Hill. The postdoctoral position has a 12-month appointment, with possibility for a 1-2 yr. extension.

A Ph.D. in molecular biology related to marine microbes (prokaryotic and eukaryotic), biogeochemistry and/or oceanography is required. Strong experimental and statistical backgrounds are desirable. Starting date is as soon as possible. Interested individuals should send a cover letter, a CV, and the names and contact information of at least 3 references to Nicolas Cassar. Review of applications will begin immediately and continue until the position is filled.
10. **Postdoctoral Research Associate in Extreme Events and Climate Change**  
The Center for Urban Waters, University of Washington, Tacoma

The Center for Urban Waters at the University of Washington (UW) Tacoma is accepting applications for a full-time, post doctoral research associate to participate in research on extreme events, regional climate change, and climate impacts assessment. The position is part of a team at the University of Washington Climate Impacts Group analyzing the time for emergence of significant climate change in the Pacific Northwest (PNW).

Specific project tasks include:

- Assemble scenarios of projected future climate and hydrologic conditions for the PNW domain as required for analysis.
- Work with stakeholders to develop important climate change parameters (e.g., variables related to meteorology, hydrology, extremes, renewable energy)
- Design, develop, and implement an analytic framework for translating model uncertainties into probability estimates of the time to emergence of a climate change signal for a variety of parameters
- Collaborate with other staff on data delivery and stakeholder support.

Applications include effects of climate change on air quality and assessment of impacts of climate change in the State of Washington. Position is funded through the UW Puget Sound Institute at UW Tacoma and will be based in JISAO/College of the Environment at UW Seattle. Initial appointment is for 12 months with the possibility of extension; contact **Prof. Eric Salathé** for more information.

Required qualifications: Ph.D. earned within the last four years in Atmospheric Sciences, Oceanography, Civil Engineering, or related discipline demonstrated experience with climate system modeling and/or climate model analysis, and programming skills to include for data analysis/visualization in a Linux environment (e.g. Matlab, idl, c, FORTRAN).

Desired Qualifications: Familiarity with western US regional climate change including climate dynamics and hydrologic processes. Knowledge of western US climate-related resource management issues and stakeholders. Web publishing/online data delivery & visualization. Applicants should supply a statement of relevant experience, curriculum vitae, contact information for three references, and earliest potential start date to **Dr. Eric Salathé**. Consideration of applications will begin immediately and continue until the position is filled. No institutional funds are dedicated to the funding of this position. Funding is derived from extramural research awards. If you have further questions or need a disability accommodation, please contact **Dr. Eric Salathé**.

11. **Postdoctoral Position in Tropical Atmospheric Dynamics**  
Yale University, New Haven, CT

A postdoctoral research position in tropical atmospheric dynamics is available at Yale University. Possible research topics include cyclogenesis, monsoons and desert heat lows, and Hadley circulations. Expertise in tropical atmospheric dynamics is required. Experience with numerical models of atmospheric flow is desired, although candidates with unique expertise in analysis of relevant observational data may also be a good match. Candidates should have a Ph.D. in atmospheric science, climate physics, geophysical fluid dynamics, or a related field. The postdoctoral researcher will be advised by William Boos in the division of Atmosphere, Ocean, and Climate Dynamics in the Department of Geology and Geophysics.
The position is for two years, with reappointment after the first year contingent on progress. Start date is flexible. Compensation is commensurate with experience, and includes benefits plus limited expenses for relocation. If interested, send a CV and brief statement of interest to William Boos. Applications will be reviewed until the position is filled. Yale values diversity among its students, staff, and faculty and especially encourages applications from women and underrepresented minority scholars.

12. **Post-doctoral Research Fellowship in Air-Sea Interaction**  
**Scripps Institution of Oceanography, University of San Diego, CA**

An NSF-supported Post-doctoral research fellowship in air-sea interaction and dynamical feedbacks under global warming is available at the Scripps Institution of Oceanography, University of California San Diego to conduct innovative and independent research in climate change dynamics and ocean-atmospheric feedbacks. Predicting regional climate change under global warming and evaluating the associated uncertainty represent a great challenge for climate science. Recent studies show that sea surface warming features considerable spatial variations, and regional patterns of ocean warming are important for changes in atmospheric convection and tropical cyclones. The funded project aims to understand ocean-atmosphere dynamical feedbacks in regional climate response to global warming. Experiments with the NCAR CESM are planned so interest and experience in numerical modeling are desirable.

Applications should include Curriculum Vitae with a publications list, and a statement of research interest. The latter (~2 pages long) should describe previous and current research activities, and outline the research to be pursued at Scripps. Please email your application package to sio.clim.pd@gmail.com. Please arrange three letters of reference to be emailed directly to the same address. Review of applications will begin on May 15, 2013 but applications will continue to be accepted until the position is filled. The position may start on July 1, 2013 or a mutually agreeable date.

At the time of appointment, the successful candidates should have a Ph.D. degree in ocean, atmospheric, climate sciences, or a related field. Initial appointment is for one year and renewable for another year, contingent upon performance and availability of funds. The position is based at UCSD but will involve close collaborations with George Mason University and NCAR. Inquiries may be directed to Shang-Ping Xie, or Jian Lu. To find more about PIs’ research activities, please visit this site, and this site.

13. **Post-Doctoral Position in Quantitative Paleoclimate Analysis**  
**University of California, Santa Barbara**

Prof. Lorraine Lisiecki at the University of California Santa Barbara is recruiting for a post-doctoral research position in quantitative paleoclimate analysis. A variety of research projects are available depending on the candidate’s background and interests. Potential projects include: innovative quantitative approaches to age model development (particularly uncertainty analysis), global compilations of paleoclimate data, modeling of ice volume response to orbital forcing, and analysis of Plio-Pleistocene interactions between the carbon cycle, ocean circulation, and ice volume. Funding will be for one year with a second year of support available, conditional upon demonstrated productivity.

Expertise is required in one or more of the following areas: paleoclimate age model development (orbital tuning, stratigraphic correlation, etc), climate/paleoclimate modeling, or compilation/analysis of large datasets. Additionally, applicants should have a successful publication record, demonstrated quantitative skills, and programming experience (e.g., Matlab, R, C++, or Fortran). PhD must be completed before employment (start date negotiable). Applicants should email a statement of research interests, CV, and the names
and contact information of three references to Prof. Lorraine Lisiecki. Review of applications will begin **April 29, 2013**, but applications will be accepted until the position is filled. The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service. The University of California is an Equal Opportunity Affirmative Action employer.

### 14. Postdoctoral Research Associate in Climate Dynamics and Variability
**Oak Ridge National Laboratory**

Description: ORNL is seeking a qualified postdoctoral candidates to pursue Department of Energy (DOE) funded projects. The first project is aimed at examining and understanding the role of aerosols and air-sea interactions in tropical climate variability using Atmospheric Radiation Measurement (ARM) program data over the western Pacific warm pool region, satellite observations and global climate model simulations. The goal of the second project is to explore and quantify the benefits of high-resolution global climate modeling by conducting and analyzing a suite of high and low-resolution atmospheric-only and fully coupled simulations. The selected candidate will work closely with a diverse team of climate and computational scientists at ORNL, Texas A&M University-College Station and other DOE Labs. Interested applicants should submit a CV with a list of publications, a cover letter describing research interests and the names of three references to Salil Mahajan. Review of applicants will begin immediately and would continue until the position is filled. The candidate will be expected to publish accomplished research in peer-reviewed journals and present at relevant conferences.

Qualifications: Applicants must possess a Ph.D. degree in atmospheric sciences, oceanography, hydrology or other relevant fields. Demonstrated experience in designing, executing and analyzing experiments with either coupled global or regional climate models or their components, with the aim to answer outstanding climate science questions is essential. Previous experience with analyzing ARM facility data (or other ground-based data) and satellite observations is desirable. The successful candidate would be expected to have an advanced knowledge of general circulation theory and climate dynamics, particularly air-sea coupled interactions. Familiarity with aerosol processes, aerosol-cloud interactions and their representation in climate models is also desirable. Knowledge of statistics of climate extremes and statistical methods used in climate sciences is preferred but not required. Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment. Certain exceptions may be considered. This position is a temporary, full-time assignment for 24 months. **Apply at ORNL posting** and search for the keyword: NB50358409.

### 15. Postdoctoral Positions, Climate Change Program in Science Technology and Environmental Policy
**Princeton University, Princeton, NJ**

2013-2014 Research Fellowship Program: The Program in Science, Technology and Environmental Policy (STEP) at Princeton University's Woodrow Wilson School of Public and International Affairs (Michael Oppenheimer, Director) announces its 2013-2014 Fellowship Program. STEP will award one-year research positions (with the possibility of renewal for a second year) to eligible, talented researchers. These appointments, at the postdoctoral or more senior research level, are designed to promote basic policy-relevant research under the supervision of one or more STEP faculty members. STEP faculty is soliciting fellowship applications in the following areas of interest:
Michael Oppenheimer:  
PHYSICAL SCIENCE OF EARTH SYSTEM: (1) Modeling of dynamic properties of ice sheets on a variety of geographic scales (in collaboration with colleagues at the Geophysical Fluid Dynamics Laboratory, GFDL). (2) Analysis of paleoclimate proxy data for sea level, ice extent, and temperature to improve the use of analogs in forecasting future sea level rise. This project focuses particularly, but not exclusively, on proxies from the Last Interglacial; see here for more information. DECISION THEORY and POLICY: Modeling the role of learning in decisions where structural model error is a key concern. This work will be coordinated with ongoing case studies of actual scientific learning coupled to policy decisions; see here for more information. CLIMATE IMPACTS: Econometric and other quantitative methods applied to assess human migration and other responses to climate change; see here and here.

Denise Mauzerall:  
CHEMISTRY–CLIMATE MODELING (in collaboration with colleagues at the Geophysical Fluid Dynamics Laboratory, GFDL and Civil and Environmental Engineering, CEE, department). Research on: 1) sources, transport, health and climate impacts of black carbon including impacts on surface energy/mass balance of glaciers and effects on water resources and examination of benefits of various mitigation strategies; 2) benefits of various industry level mitigation strategies for methane and other pollutants for global ozone, aerosols and climate; 3) benefits for air quality and climate of increased penetration of renewable energy. 4) benefits of mitigation strategies for nitrous oxide and methane from agriculture. Scientific research is oriented to inform policy decision-making. The Research Fellows Program is open to all regardless of citizenship, but requires a completed doctorate and does not support work towards the completion of a degree. STEP fellows will be eligible for salary and full employee benefits in accordance with University guidelines. Applicants should submit a CV, contact information for three references and a cover letter indicating the faculty they wish to apply with and describing their areas of expertise and interest.

The submission must be online via (use requisition number #1300092 for Professors Oppenheimer or Mauzerall) (use requisition number #1300090 for Professors Wilcove or Glaser). The review process will commence immediately and continue until positions are filled.

16. Nine PhD Positions on Science and Management of Climate Change  
University of Venice, Italy

The PhD Program in Science and Management of Climate Change at the University of Venice solicits applications for nine PhD positions for 2013/2014. Twelve 5-credit courses are planned for the first academic year, in order to provide students with the state of the art of the scientific findings related to the two disciplinary streams. These also foresee common activities with the objective of offering tools to build a sound scientific, managerial and economic base for the general comprehension of the broader theme of climate change, with the opportunity for in depth studies of specific issues and for experiencing a multidisciplinary approach. The second year is aimed at providing the PhD candidates with an experience of research in a foreign institution, while the third year is mainly devoted to the preparation of the thesis. The Program is organised in two Streams:

- Dynamic Climatology, at CMCC in Bologna  
- Climate change impact and management, at the Department of Economics of the University Ca’ Foscari in Venice

The PhD admits every year up to twelve students, from Italy and elsewhere. You can find information about the course in this web site. Candidates can apply online here. The deadline is May 27, 2013.