

Atmospheric Sciences Section of AGU Newsletter

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Bowie Award Recipient Susan Solomon

Anna Harper

You could say that Susan Solomon is having a good year, and she has earned it. In February, the IPCC working group that she has Co-Chaired since 2002 released "Climate Change 2007: The Physical Science Basis." In October, the IPCC was jointly awarded the Nobel Peace Prize with Al Gore. And in December, she will be presented with the William Bowie Medal, AGU's highest honor.

Solomon has been involved with the IPCC as an author for 15 years. For the past five years, she has Co-Chaired Working Group I with Dahe Qin of China. During this time, Solomon led the assessment process, working with 152 authors from more than 30 countries. The process involved both expert and government review of the chapters of the report and the Summary for Policymakers. Working with so many people and govern-

ments may seem like a daunting task, but Solomon said it had benefits, too.

"Through that kind of communication, both sides learn. The Summary had to be approved by all of the governments involved. Because the science is so strong, it was not as hard as you might think, and it forces us to be very clear," she said. She also said that working with the author team was her favorite part of Co-Chairing the group.

Although Solomon was chosen to be a Co-Chair because of her expert standing in the field of atmospheric chemistry, she said that she had a lot to learn about physical climate and modeling. "I learned a lot about climate and I'm very grateful for the time people spent teaching me," she said. Solomon is using some of what she learned to spark new directions in her research. She is still working on ozone depletion and climate change, the work that made her well-known in the 80's and 90's, but is also focusing more on climate and is performing some fundamental climate data analysis.

Solomon finds it appropriate that the Nobel Peace Prize is being awarded to all of the people who have been involved

Susan Solomon on a recent trip to Antarctica.



with the IPCC since its inception in 1988. "It's really an award to all of us in climate science," she said. "What's wonderful is it says that science has a very important role to play in world peace."

Solomon also is the recipient of AGU's William Bowie Medal for 2007. According to AGU's website, the honor is "for groundbreaking research on Earth's ozone layer and climate change, her lifelong endeavors to communicate science to educators, the public, and decision makers, and unselfish efforts to foster the next generation of atmospheric scientists." Solomon is deeply honored by this award. She said that while the Nobel Peace Prize is for a group effort of which she is a part, the Bowie Medal is very personal to her.

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HIGHLIGHTS

2007 Fall Meeting schedule and guide:
<http://www.agu.org/meetings/fm07/>

Vote for AGU AS Section President-Elect:
<http://www.agu.org/elections/>

Submit a session for the 2008 Joint Assembly (May 26-30 in Fort Lauderdale, Fla.) and for the **Western Pacific Geophysics Meeting** (July 29 - Aug. 1 in Cairns, Australia).

AS Newsletter

Sometimes, it's a good idea to take a step back and recognize those among us who are achieving great things. That is what we have done with this Issue. On Page One is an article about Susan Solomon, who has been awarded with the AGU Bowie Award for her contribution to our field and her dedication to influencing future scientists. On this page, Will Anderson introduces us to this year's recipient of the James R. Holton Junior Scientist Award, Dr. Alfonso Saiz-Lopez. Saiz-Lopez is a scientist at the Jet Propulsion Laboratory who studies physical chemistry and biogeochemical cycles. On Page 3, you can find out about the research of Jay Gregg, a graduate student at the University of Maryland and the winner of the Outstanding Student Paper Award at last year's Fall Meeting.

Most of us can agree that you are more likely to be successful if you enjoy what you are doing. On Page 3, Juan Añel explains one way you can turn your enjoyment of our field into a hobby.

On Page 4, you can learn about a summer institute held last July in Russia on environmental studies in boreal forest zones. Also be sure to check out Page 5, there is some important information about the Fall Meeting coming up in a few weeks.

As always, send any comments or suggestions you have my way at: abharper@atmos.colostate.edu.

Happy Reading,
Anna Harper, Editor
Colorado State University

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Juan A. Añel - University of Vigo, Spain

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Dr. Alfonso Saiz-Lopez Earns the 2007 James R. Holton Award

Will Anderson



At the American Geophysical Union's (AGU) 2007 Fall meeting, Dr. Alfonso Saiz-Lopez, of the NASA Jet Propulsion Laboratory (JPL), will be awarded the James R. Holton Junior Scientist Award. Given annually, the

award recognizes the efforts of a Union member (within the Atmospheric Sciences section) who, having completed their Ph.D. within the last three years, has since made significant contributions to our field. We congratulate him on his achievements and deserving recognition.

Saiz-Lopez's educational experience began at the Universidad de Castilla – La Mancha, Spain, where he earned B.S degrees in both physical chemistry and environmental sciences. Following this, he completed M.Sc. and Ph.D. degrees in atmospheric physical chemistry at the University of East Anglia, UK, with Professor John Plane. Following his Ph.D., Saiz-Lopez continued within the Plane group at the University of Leeds for six months, before crossing the Atlantic in 2006 to join JPL as a NASA Postdoctoral Scholar in Dr. Stanley Sander's group. During this time he has also been a visiting scientist at the Harvard-Smithsonian Center for Astrophysics working with Dr. Kelly Chance.

His research focuses on atmospheric physical chemistry and biogeochemical cycles, and their coupling to climate change. In addition, he is interested in the chemistry of planetary atmospheres. In this work he uses observational (ground-, aircraft-, and satellite-based), numerical, and laboratory data. He has been involved with several field campaigns, including expeditions to Antarctica, the Arctic, and most recently to Cape Verde Islands. I communicated with Saiz-Lopez while writing this article, and found his responses to the following questions extremely interesting.

WA: What made you choose a career in the physical sciences (engineering/physics)?

AS-L: Since I was a kid, I have always felt a fascination for nature. For instance, I still remember from my childhood being rather

puzzled about the changing colors in the sky from blue to orange-red around sunset. It was that curiosity about the environment we live in that led me to choose a career in physical sciences.

WA: What do you consider to be a career highlight?

AS-L: The recognition by your own colleagues in the field is certainly the most gratifying feeling in a scientist's career.

WA: What are your future research interests?

AS-L: The research direction I want to follow deals with atmospheric physical chemistry, and biogeochemical cycles, and their coupling within the context of a changing climate. Particularly, I am interested in atmospheric observations of trace gases, including greenhouse gases, and global chemistry-climate modeling.

WA: In the next 10 to 50 years, how do you see research efforts in the atmospheric sciences, boundary layer meteorology and planetary boundary layer evolving/changing? What do you expect might be the 'hot topics'?

AS-L: It is certainly difficult to foresee 'hot topics' in atmospheric sciences in the next decades. However, climate change related research is currently the biggest challenge for the atmospheric sciences community, and as such it undoubtedly represents a present and future 'hot topic' for Earth scientists in general. From the standpoint of a chemist, the coupling, and bi-directional feedbacks, between atmospheric chemistry and climate change constitute a field of major interest.

WA: What advice would you offer for Ph.D. candidates and postdoctoral students working in the atmospheric science, boundary layer meteorology or planetary boundary layer research field?

AS-L: The Earth, and in particular the atmosphere, is a rather complex and diverse system. The study of such a system, or even only individual components of it, requires a trans-disciplinary approach. Without losing the focus and specialization on a given topic, my advice would be to widen your range of research interests in atmospheric sciences. Gaining a broad perspective of the field during the formation periods will later in our careers help us to be more open-minded to tackle the different challenges in this exciting and fast-moving field.

We again congratulate Dr. Saiz-Lopez on receiving the 2007 James R. Holton award, and thank him for providing this information for publication in this newsletter. Saiz-Lopez is attending the Fall meeting in San Francisco, where he will discuss his studies of halogens in polar atmospheric chemistry.

Stamps:

Making a Hobby out of Your Career

Juan A. Añel

In the [last Issue](#), Michel Mesquita wrote an article about art and atmospheric science. This reminded me of the passion of a research colleague, Dr. Dian J. Seidel, who works in NOAA's Air Resources Laboratory. She collects stamps, but a particular kind of stamps – those related to weather, climate, and the environment.

From a talk by Dr. Seidel that I attended during the last meeting of the European Meteorological Society, I learned that the different national postal services are very prolific producers of stamps representing scientific subjects, and particularly those that are related to the weather in some way. These include depictions of the four seasons, rainbows (although the colours are not always correct), atmospheric optical phenomena such as halos, famous meteorologists, important dates such as the World Meteorological Day, meteorological charts, and weather instruments. Not only do the postal services produce these kinds of stamps, the United Nations also has several stamp series related to topics such as climate change or the world weather watch. Moreover, there are curiosities about some of



the series. For example, the British Antarctic Territory seems to be a recurrent leitmotif of the stamps published by the Royal Mail, the British postal service. In some cases, the stamps are extremely accurate, including figures about the ozone hole with the corresponding scale in Dobson Units, while others can be considered almost abstract art.

While looking for information to write this article, I found out that other people, such as Dr. Raino Heino of the Finnish Meteorological Institute, and Juan Paredes, a retired meteorologist of the Spanish Meteorological Institute, have the same interest. In fact, Dr. Heino is currently writing a book about this subject, which is going to be published by the World Meteorological Organization.

The collection of each of these scientists is different in size and composition, but each has a common feature – they are all composed of small pieces of art made of paper that link their passion for their work and research with something that is more than a hobby. Perhaps after reading this article, you will want to begin your own collection.

Outstanding Student Paper Award

Anna Harper

One of the awards decided upon at each year's Fall Meeting is the Outstanding Student Paper award. Last year, it was given to Jay Gregg, a graduate student at the University of Maryland. Gregg is also a research assistant at the Joint Global Change Research Institute and a research intern at the World Research Institute in Washington. His presentation was entitled "*The Seasonal and Spatial Distribution of Carbon Dioxide Emissions from Fossil Fuels in Asia.*"

"The paper discussed a method for estimating the spatial and seasonal distribution of carbon dioxide emissions from fossil fuel combustion for the leading carbon dioxide-emitting countries in Asia: China, Japan, India, South Korea, and Indonesia. In the last few decades, these countries have had rapidly developing economies, and as a result, we have seen a dramatic increase in fossil fuel consumption and carbon dioxide emissions in Asia. Yet, the spatial and temporal patterns of emissions are unique to each country, based on their resource availability and the structure of their energy consumption sectors," said Gregg.

The purpose of the Outstanding Student Paper award is to recognize student excellence in geoscience research and presentation at the AGU National meetings. You are automatically considered for an Outstanding Student Paper Award if you are a current student member at the time of the meeting and have submitted an abstract as first author by the required deadline. Congratulations to Jay Gregg for his outstanding work on carbon dioxide emissions.

Gregg at the Tasman Glacier near Mt. Cook, New Zealand



**Top: Norwegian stamp to commemorate the centennial of the birth of Vilhelm Bjerknes.
Left: U.S. stamp with ice crystals.
Images courtesy of Dr. Dian Seidel.**

Environmental Studies in the Boreal Forest Zone: Summer Institute in Russia

Vladimir Alexeev, Julia Kurbatova, Pavel Groisman, Elena Sparrow, Michel dos Santos Mesquita

The Summer IPY Institute provided a unique opportunity for participants to learn about the climate and environment of Northern Eurasia from leading scientists and educators in a wide spectrum of polar and Earth-system science disciplines including meteorology, biology, chemistry, and Earth-system modeling. Additionally, the attendees observed and participated in research activities under the guidance of experienced scientists. The institute was arranged as part of the education outreach activities of the International Arctic Research Center (IARC), the International Polar Year (IPY) effort at the University of Alaska, and the Northern Eurasia Earth Science Partnership Initiative. These institutes collaborated with the A.N. Severtsov Institute for Ecology and Evolution of the Russian Academy of Sciences in Moscow, Russia, and the Central Biosphere Forest Reserve in Fedorovskoe to put on the summer school. It was held in Russia, approximately 350 km west of Moscow, in the village of Fedorovskoe, where the Central Biosphere Forest Reserve is located. During a two-week interval, the institute participants attended 40 lectures, went on several field trips, and participated in three brainstorming roundtable workshop sessions devoted to special issues and major unresolved problems of boreal forest zone research.

Thirty professors and experts in different areas of climate and biosphere research from Russia, the United States, Germany, Finland, and Japan shared their expertise in lectures and in discussions with the institute participants. Among the participants were 31 graduate students/early career scientists from six countries (China, Russia, Estonia, Finland,



Participants at the boreal studies summer institute. Photo courtesy of the International Arctic Research Center.

United Kingdom, and the United States) and eight K-12 teachers from Russia. The two groups joined together for several workshop sessions and for the fieldwork components of the institute. The fieldwork was focused on land-atmosphere interactions and wetland studies in the boreal forest zone. Several field trips in and outside the Forest Reserve were arranged to highlight various aspects of wetland studies and management in the taiga environment.

As part of the GLOBE (Global Learning and Observations to Benefit the Environment) IPY “Seasons and Biomes” project led by Elena Sparrow, the K-12 teachers were instructed in and practiced both existing and new GLOBE protocols created specifically for the “Seasons and Biomes” project to study interannual variability of seasons in their own biomes. These teachers will in turn engage their students in Earth system science research as a way of teaching and learning science, as well as involving them in the IPY.

Students and some instructors had one full day for sightseeing in Moscow. Many of the students, including the Russians, had never been in this vibrant and swiftly growing city. The group went to the Kremlin and various other places. After spending half a day with the hosts at A.N. Severtsov Institute for Ecology and Evolution, the participants were taken on the long bus ride to the reserve. Life at the village of Fedorovskoe was probably a new experience for many of these students. They were able to see a Russian private rural life in a small place, with no fancy shops or supermarkets. The locals were very friendly and tried to help in any possible way. Healthy food and a lot of exercise combined well with lectures. Everyone was a bit tired after long working days, but the traditional Russian sauna (“banya”) and the Russian hospitality helped revitalize the students’ brain functions! Students and instructors found new contacts and formed personal and professional networks. Most importantly, everyone became very good friends.

IARC will offer a Summer School for next year (2008) in Alaska: “On the Modeling of Arctic Climate” (http://www.iarc.uaf.edu/education_outreach/summer/2008/). More information can be obtained by contacting the IARC booth at the AGU Fall Meeting 2007 in San Francisco or by contacting Chris Lacey at clacey@iarc.uaf.edu.

Note: Support for the IPY Summer Institute was provided by many institutions and organizations from the United States (IARC, NASA, NSF, University of Maryland, GLOBE USA, and Hydrology Science and

Student Perspectives on the Summer School

Dmitry Chechin, Grad student, Moscow State Univ., Atmospheric Science



“Summer school '07 was really very well organized, so thanks to the organizers from Russia and the IARC. During this Summer School, a lot of interesting lectures were given by qualified scientists. It was very good for me to learn about the latest research and achievements in climatology, hydrology and ecology. Also, I had a chance to talk and exchange experience with other students of the school, which is very important, because keeping in touch now we will have better opportunities for collaboration.”

Xuefeng Cui, Grad student, Univ. of Liverpool, Dept. of Geography

“Besides the interesting lectures and discussions, I enjoyed a lot of things during the school: the location, the environment, the friendly local people, the unforgettable excursions, to name a few. And, of course I will not forget to mention the dear mosquito who kissed me when I slept, played football, and walked in the forest. From the school, I got the real experience of FOREST and was touched by the joy and challenge of the related research. It was the first time that I visited a peat bog!”



Services Corporation), Russia (Central Biosphere Forest Reserve, A.N. Severtsov Institute for Ecology and Evolution of the Russian Academy of Sciences, Southern Federal University, Russian Foundation for Basic Research, GLOBE Russia, and non-profit organization “Transparent World”), Japan (National Institute for Environmental Studies), China (Beijing Normal University), Germany (Friedrich-Schiller-University) and the Circumpolar North (University of the Arctic).

Solomon, continued from Page 1

“The Bowie Medal is something that’s from my peers, and it means a lot to me. I am humbled and overwhelmed,” she said.

Solomon became interested in atmospheric chemistry as an undergraduate, while learning about the chemistry of Jupiter’s atmosphere. She earned her Ph.D. in Chemistry from UC, Berkeley, in 1981, and then began working for NOAA. In the 1980’s, she and her colleagues made the connection between CFC’s and polar stratospheric clouds in the ozone depletion that occurs above the South Pole during the Austral spring. She is now a Senior Scientist in the NOAA Earth System Research Laboratory’s Chemical Science Division.

Other than taking some time off to learn to fish, Solomon didn’t mention any personal goals for the future, but she is optimistic about the future of our field. “There is so much going on in this world that is related to changes in the planet, so demands for our services as a science community can only grow,” she said. “It’s a relatively young field, so there are a tremendous amount of new things to explore.”

Solomon will also be giving the Bjerknes Lecture at the Fall Meeting. Here is the information:

Bjerknes Lecture: *A Review of Stratospheric Ozone Depletion, and Some Linkages and Parallels to Climate Change*. Presented by Susan Solomon, Wed. Dec. 12, 12:30 PM in Moscone South Room 102.

Section News

Wanted! Volunteer for AGU’s New Student Advisory Board

AGU’s Committee on Education and Human Resources (CEHR) is eager for information and advice from student members of each Section for its education and career services programs. CEHR aims to make the AGU meetings student-friendly, and also to encourage student members to become long-time members and volunteers. Therefore, CEHR is asking for a graduate student volunteer from each section. Mariela Salas de la Cruz of CEHR, a graduate student in seismology at Brown University, will be the chair of the

board. Contact the AS Section President if interested: Warren.J.Wiscombe@nasa.gov.

From Warren Wiscombe, Section President

Introducing the AS Section Education Chair

Did you know that the Atmospheric Sciences section has an Education Chair? The duties of this position are:

- 1) Coordinate the judging for the student awards at the Fall AGU and Spring Joint Assembly Meetings;
- 2) Work with the community to ensure that there are atmosphere-related education sessions at the Fall and Spring meetings;
- 3) As needed, help with the planning of the Geophysical Information for Teachers (GIFT) workshop, held at the Fall and Spring meetings.

This position has been held for several years by Dr. Susan Buhr, who also directs the Education Outreach program of the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado at Boulder. This fall, Dr. Lin Chambers is taking over these responsibilities from Susan. Lin is a physical scientist at NASA Langley Research Center in Hampton, Va., where she directs the S’COOL and MY NASA DATA education projects. Lin is also the former contrail scientist for the GLOBE program and a member of the CERES Science Team (that’s Clouds and the Earth’s Radiant Energy System; not CIRES).

If you have questions or suggestions about this position, please contact Susan (susan.buhr@colorado.edu) or Lin (lin.h.chambers@nasa.gov).

From Lin Chambers, AGU AS Education Chair

Fall Meeting News

IPCC Tribute

On Thursday, 13 December AGU will hold an event at the Fall Meeting to honor those AGU members who participated in the Intergovernmental Panel on Climate Change. Winning the Nobel Peace Prize is a wonderful recognition of the importance of their hard work, and AGU would like to congratulate those scientists. This tribute to our members will take place from 1815h-1930h in Moscone South, Room 104, before the Town Hall meetings. It will be open to all meeting regis-

trants, but because seating is limited, we are asking that interested members register in advance for this event. If you were a participant in the IPCC, please indicate that when registering. Please click on the link below to register, we ask that you do so no later than 1700 UT on 6 December.

<http://www.agu.org/meetings/fm07/?content=events&show=ipcc>

From Tim Killeen, AGU President

“Learn” About Options for the Fall Meeting

Attending the Fall Meeting? When your brain gets too full from all the science talks and poster sessions, consider a possible change of pace. There will be several sessions in the Education and Human Resources Section that may be of interest to you.

Monday morning, check out a poster session on the International Polar Year. There will be other sessions later Monday on the topic of IPY, a highly interdisciplinary research effort that began in March and extends through March 2009. Also on Monday, learn career-enhancing strategies during the “Navigating a Career in the Geosciences: Strategies for Success” posters and oral sessions.

Tuesday afternoon brings a poster and oral session on “Advances in Bringing the Science of Climate Change and Sustainability to the Public, Students, and Educators.”

Learn about “New Directions in Undergraduate Education” during the Wednesday sessions, and consider ways to “Build Geosciences Departments for the Future” Wednesday afternoon and Thursday morning. Wednesday afternoon will also offer oral and poster sessions on “Involving Authentic Environmental Change Science and Scientists in Education and the Media.”

Thursday there will be sessions on “Promoting Student Inquiry using Real Scientific Data in the Science Curriculum,” which continue on Friday morning; and also sessions on “Innovative Teacher Training Programs in Earth Science.”

Come visit one of these sessions; then consider submitting an abstract of your own to a future AGU education session. For more information on any of these sessions, please visit the Education Meeting At A Glance page on the Fall AGU site, or contact Susan Buhr, Program Committee representative for EHR (susan.buhr@colorado.edu).

From Lin Chambers, AGU AS Education Chair

Navigating the Fall Meeting

A wonderful tool for deciding which sections to attend at the Fall Meeting is the Personal Meeting Itinerary tool on the Meeting website. You can search by section topic, time, or by keyword, and then create your own meeting schedule. You can then e-mail the schedule to yourself, and then you are ready to go. A nice feature of this tool is you can select to not be allowed to double-book yourself.

<http://www.agu.org/meetings/fm07/?content=program>

From Anna Harper

- Post-doctoral Fellow, analytical chemistry, Desert Research Institute Environmental Analysis Facility
- Post-doctoral position, Polar climate change, UCLA's Dept. of Atmospheric and Oceanic Sciences - reviews begin Dec. 5
- UCAR visiting scientist, NOAA's Geophysical Fluid Dynamics Laboratory, Princeton, N.J.: evaluation and development of convection and cloud parameterizations in the GFDL climate model using ARM observational datasets - reviews begin Dec. 1
- Post-doctoral position, ocean, atmosphere, and climate dynamics, Yale Univ., Dept. of Geology and Geophysics
- Director of the American Meteorological Society's Education Program, Boston, Mass. - reviews begin Jan. 1, 2008
- Tenure-track Assistant Professor, Dept. of Geological Sciences at Central Washington Univ.: research subdisciplines include paleoclimatology, biogeochemical cycles, and climate dynamics - reviews begin Jan. 7, 2008
- Faculty positions, Dept. of Earth and Environmental Sciences, Rensselaer Polytechnic Institute, Troy, New York
- Tenure-track faculty position, glaciology, Dept. of Geology and the Center for Remote Sensing of the Ice Sheets at the Univ. of Kansas - reviews begin Jan. 15, 2008
- Marie Tharp Visiting Fellowship for women in the natural sciences and engineering, Columbia Univ. - deadline Jan. 11, 2008

Opportunities

Compiled by Anna Harper

Note: You may be asked for your AGU member # to open the following links. Visit the AS Section website for links to other job opportunities not listed here: <http://www.agu.org/sections/atmos/> click on Job Listings/Resources.

AGU job postings can be found at:

http://www.agu.org/cgi-bin/membership_services/joblistings.cgi

Below is a list of the postings in Atmospheric Sciences:

- Aerosol scientists, Pacific Northwest National Laboratory, Atmospheric Science and Global Change Division
- Research Associate, Cooperative Institute for Research in Environmental Sciences, Boulder, Colo.: Lidar development, research, and data analysis
- Chief Scientist, Pacific Northwest National Laboratory, Atmospheric Science and Global Change Division
- Education and Public Outreach Director, National Suborbital Education and Research Center, Univ. of North Dakota's Northern Great Plains Center for People and the Environment
- Post-doctoral Associate, atmospheric chemistry, Rutgers Univ. with Dr.'s Turpin and Seitzinger - begins Jan. 1, 2008

Biogeosciences

- Post-doctoral positions, Duke Univ. Center on Global Change and Nicholas School of the Environment and Earth Sciences - reviews begin Dec. 1

Ocean Sciences

- Tenure-track position, Assistant Professor, Global climate change/marine paleoclimate, Univ. of California - Santa Barbara - deadline Jan. 15
- Ocean Modeling/Data analysis and assimilation, Princeton Univ. Program in Atmospheric and Oceanic Sciences - deadline Dec. 20
- Post-doctoral fellow in ocean modeling, Australian National Univ., Research School of Earth Sciences - deadline Jan. 31
- Research associate in ocean modeling, Oregon State Univ., College of Oceanic and Atmospheric Sciences - deadline Dec. 15
- Tenure-track assistant professor, Millersville Univ., Ocean Sciences and Coastal Studies Program - deadline Jan. 25, 2008

Interdisciplinary/Other

- Ph.D. positions, The International Graduate College "Proxies in Earth History", Univ. of Bremen (Germany)
- Post-doctoral position, Royal Netherlands Institute for Sea Research, Physical Oceanography Dept. - deadline Dec. 4
- Chair of Climatology, Univ. of Bern (Switzerland) - deadline Dec. 31
- Sherman Fairchild Chair in Sustainability Science, Dartmouth College - reviews begin Jan. 10, 2008

- Marie Tharp Visiting Fellowship for women in the natural sciences and engineering, Columbia Univ. - deadline Jan. 11, 2008
- Post-doctoral research associate, climate forecast applications in water resource management, Water Institute of the Univ. of Florida - deadline Dec. 14
- Post-doctoral position in regional earth system modeling, UCLA Dept. of Atmospheric and Oceanic Sciences - reviews begin Dec. 5
- Post-doctoral and Senior Research awards, National Research Council of the National Academies - deadline Feb. 1, 2008
- Reginald A. Daly Post-doctoral Fellowship, Harvard Univ. Dept. of Earth and Planetary Sciences - deadline Jan. 15
- Tenure-track faculty positions, Univ. of Chicago Dept. of the Geophysical Sciences - reviews began Nov. 1
- Tenure-track Assistant Professor, Dept. of Physics and Physical Oceanography, Univ. of North Carolina, Wilmington - reviews begin Feb. 1, 2008
- Tenure-track faculty position in Lunar science, Hampton Univ., Dept. of Atmospheric and Planetary Sciences - review began Nov. 15
- UCAR Post-doctoral fellowship, U.S. CLIVAR Climate Prediction Applications Post-doctoral Program: work on climate change impacts to regional water management in the western U.S. - deadline Dec. 15
- Visiting Fellowship Opportunities, Univ. of Colorado, Cooperative Institute for Research in Environmental Sciences - deadline Dec. 31

Student Opportunities

There are many student opportunities listed on the AGU website, here are just a few:

- Graduate assistantships, atmospheric science, Univ. of Nevada - Reno
- Doctoral research graduate assistantships in Tropical hydrology, Smithsonian Tropical Research Institute: interdisciplinary studies of reforestation effects on annual hydrology, carbon cycle, and ecosystem services in the Panama Canal watershed
- Joint Doctoral Program in climate dynamics, George Mason Univ. and the Center for Ocean-Land-Atmosphere Studies
- Graduate Research Assistantships, urban hydrology, Univ. Of Maryland, Baltimore
- Ph.D. opportunities in Univ. of Maryland, College Park, Dept. of Atmospheric and Oceanic Sciences - deadline Feb. 1, 2008

Conferences

- **AGU Fall Meeting** (Dec. 10-14) - San Francisco, Calif.
<http://www.agu.org/meetings/fm07/>
- **Chapman Conference on the Solar Wind Interaction with Mars** (Jan. 22-25, 2008) - San Diego, Calif.
<http://www.agu.org/meetings/chapman/2008/acall/>
- **2008 Ocean Sciences Meeting** (Mar. 2-8, 2008) - Orlando, Fla.
<http://www.aslo.org/orlando2008/>
- **2008 Joint Assembly** (May 26-30, 2008) - Ft. Lauderdale, Fla.
<http://www.agu.org/meetings/ja08/>
- **2008 National Storm Conference** (Mar. 8, 2008) - Colleyville, Texas
<http://www.tessa.org/meeting.html>