A G U A T M O S P H E R I C S C I E N C E S

# Atmospheric Sciences Section of AGU Newsletter

Volume 1, Issue 5 October 22, 2007

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## IPCC Scientists Awarded Nobel Prize

*Anna Harper*

The Nobel Peace Prize was jointly awarded to Al Gore and the Intergovernmental Panel on Climate Change (IPCC) Friday, Oct. 12. Several members of the Atmospheric Sciences section are involved with the IPCC – including our President-Elect, Alan Robock. "The award is a clear statement that climate change is an important security issue," said Robock. The award committee recognized the IPCC and Gore's "efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."

Approximately 2,000 people have contributed to the IPCC. "All the scientists that have contributed to the work of the IPCC are the Nobel laureates who have been recognized and acknowledged by the Nobel Prize Committee," said Rajendra Pachauri.

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## When Art and Science Fuse Well

*Michel dos Santos Mesquita*

Have you heard the music of the North Atlantic Oscillation? Have you seen a "Sun Fountain" or a "Lightning Panel?" If you haven't, then you haven't met Charlie Hooker, professor at the University of Brighton, U.K. He has the ability to transform science into art in the most spectacular way. Right now, he is working on an installation in Bergen, Norway, together with scientists from the Bjerknes Center. I invite you to learn more about the work of this great artist. Perhaps your research center or university will have one of his installations in the future.

### HIGHLIGHTS

**Propose a section for the 2008 Joint Assembly** (May 26-30, Ft. Lauderdale, Fla.) deadline Oct. 31
http://www.agu.org/meetings/ja08/program.html

2007 Fall Meeting pre-register by Nov. 2:
http://www.agu.org/meetings/fm07/?content=registration

**Register for the 2007 Fall AS Section Banquet,** Tuesday, December 11, at the Empress of China.

Charlie was born in London and studied art in the U.K. Previous to his art education, he studied jazz percussion. He studied at Croydon College of Art (1969-71) and at Brighton Polytechnic (1971-74), where he was awarded a First Class Honors degree (the highest honor that can be achieved in most British universities). He was invited to become a professor at the University of Brighton in 2005, due to his work within education (which includes teaching, researching, examining and instigating interdisciplinary projects), and his international standing as an artist.

Early in the 1990's, he extended his work to involve aspects of science. Charlie visited the Department of Meteorology at a Reading University field site and began trying to make contact with meteorologists. He wanted to make his thoughts on work that fuses together aspects of art and science more rigorous and to examine them from a scientist's point-of-view. He was asked to be an 'artist in residence' for a period and met a number of scientists who began to help him research the scientific elements of his work properly. Dr. Giles Harrison, David Stephenson, Dr. Janet Barlow and Dr. Maarten Ambaum all became part of 'The Spring Group,' a research group involving 12 scientist, artists, musicians and designers, that he set up in 2004. About this experience, Charlie said,

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## AS Newsletter

*We are pleased to include in this issue news about the Nobel Peace Prize, and we would like to extend our congratulations to all of you who were (and are) involved with the IPCC. It is a happy moment for our field when the work of thousands of scientists is given international recognition.*

*This Issue has two articles in particular that pertain to your involvement in the Atmospheric Sciences Section. First, I had the opportunity to speak with the two candidates for President-Elect - Anne Thompson and Dennis Hartmann. Usually, only about 20% of AGU members vote. I hope that this new opportunity to get to know the candidates will encourage more participation.*

*Second, our current section President, Warren Wiscombe, has been collecting your e-mails over the past several months regarding AGU meeting size. He has put together those comments in an article on Pages 4-6. This is a lengthy piece but I found it extremely interesting. If it sparks a reaction in you, we are still accepting comments and suggestions.*

*Along those lines, this Issue is the first with a Letter to the Editor section, titled "From the Readers", on Page 6. I hope to see more stories, comments, and pictures from you. As I've said before, this Newsletter will be the most useful and entertaining if it is somewhat interactive in nature.*

*This Issue also features a story from Michel dos Santos Mesquita about an innovative artist who is using his talents and interest in science to represent different phenomena of our field. On Page 6, Juan Añel gives us a recap of the Chapman Conference on the Role of the Stratosphere in Climate and Climate Change.*

*Happy Reading,*
*Anna Harper, Editor*

***Newsletter Reporters:***
*Juan A. Añel - University of Vigo, Spain*
*Michel dos Santos Mesquita - Univ. of Alaska, Fairbanks*
*Will Anderson - Johns Hopkins University*

# You Decide

*Anna Harper*

The election for Atmospheric Sciences Section officers is fast approaching. The candidates for President-Elect are Anne Thompson of Pennsylvania State University and Dennis Hartmann of the University of Washington. Even though their names may be familiar, you might not know much about these two scientists. A future issue of *Eos* will include their statements, but to help you get to know them better, I interviewed them also.

**Dennis Hartmann** is a professor in the Department of Atmospheric Sciences at the University of Washington. His undergraduate degree was in mechanical engineering, but he switched to Atmospheric Science in graduate school.

**What makes you an appealing candidate to all atmospheric scientists?**

**DH:** I think I have a broad perspective in the field. I've worked in dynamics, I've worked in radiation, and I've worked with chemists when I worked on the stratosphere. I've gotten more interested in cloud physics lately. I think that all of the subdisciplines of atmospheric science are important.

**What is one thing you hope to accomplish in your term?**

**DH:** The main thing would be to try to evaluate and continue the initiatives that the past couple of presidents have started. They've taken on some new things and I want to sustain those if they are working.

**There has been some talk about ways to improve the AGU meetings as they continue to grow. Do you have any ideas for improving them?**

**DH:** Typically, the AGU meeting is rather large and chaotic. I think that having sessions focused on particular topics of interest is something that has been done that is good. I don't know if the AGU leadership would support it, but there is the possibility of having meetings outside of the main AGU meetings ... that would narrow the focus and attract a particular group of people. It works quite well for the scientists involved.

**What are one or two ideas you have for improving services and opportunities for Section members?**

**DH:** The primary things that AGU does for its members are organizing meetings, publishing journals, and representing the scientific community more broadly, either in the general public or in Congress. I would address those three issues.

**How do you foresee our section playing a role in outreach and advocacy for science?**

**DH:** The atmosphere is the part of the system that does most of the communicating between the ocean and the land, so atmospheric scientists have an important role to play in the key environmental problems of our time, and weather is always an important issue. The Atmospheric Sciences Section should have an important role to play, and as president I would try to put the atmospheric scientists concerns forward in the Union.

**Do you have any ideas for supporting the students and younger members of the Section?**

**DH:** AGU should try to help the younger members come along by encouraging student membership. We have the Holton award, which is good idea. We have reduced rates for membership and for the meetings for students. I'd be willing to listen to other ideas for encouraging younger members, whether they are students, postdoc's, or young scientists.

**Anne Thompson** is a professor at Penn State's Department of Meteorology. Her formal education was in chemistry, but she was attracted to atmospheric science during her postdoctoral tenure at Woods Hole Oceanographic Institution, Scripps and NCAR. "I went on my first oceanographic cruise, saw blue water and became hooked on the mysteries of atmospheric chemistry and geosciences. I have been there ever since," said Thompson.

**What makes you an appealing candidate to all atmospheric scientists?**

**AT:** My work with AGU in the past – Atmospheric Sciences Secretary and service on several committees – has provided me familiarity with what it means to serve as an officer. As far as our discipline, I have a broad research background, having worked with oceanographers at the air-sea interface and conducted early modeling studies on the links between chemistry and climate change. Since the 1990's, I've mostly worked on how natural and anthropogenic variations affect tropospheric chemistry with satellite and aircraft data. Most recently my research with ozonesondes as coordinator of three international networks has brought me to the tropopause and collaborations with climate dynamicists as well as with chemists. I've done both modeling and observation work.

**What is one thing you hope to accomplish in your term?**

**AT:** I would say that AGU is terrific in meetings, publications, and fostering collaborations. Most of us are active because it's

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stimulating. Working with other scientists through AGU is a lot of fun and I hope all the new officers can make it even more so.

**There has been some talk about ways to improve the AGU meetings as they continue to grow. Do you have any ideas for improving them?**

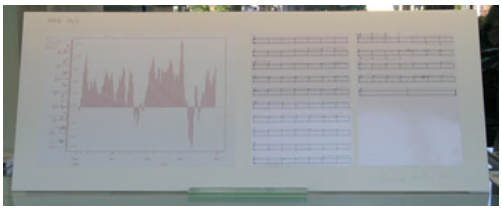
**AT:** Most people think there are pluses and minuses to the size. You can sample completely different things by going to talks from many fields yet still engage presenters in detailed discussions about the latest specialized research – yours or theirs. I am not sure what can be done to address the size issue.

**Do you have any ideas for supporting the students and younger members of the Section?**

**AT:** Panels, discussions, possibly a lecture at a section luncheon.

**You refer to AGU playing a role in national commitment to science, technology and education – what is one way AGU can either continue or strengthen that role?**

**AT:** AGU has been progressively more active in this area over the last 10 years, with more statements of support for different sorts of activities and statements on controversial issues of science interpretation. This is a move in the right direction. There's opportunity for us to keep investing in our outreach and communication, but there are also challenges that all of society is seeing – funding, the science and technology workforce, continuing commitment to education, and technology. We're doing a lot of the right things and we should do more as resources permit. On issues like climate and evolution, we have to keep taking a courageous stand.



***"NAO Music"*** **- This piece involves music derived from NAO Index data to produce sounds. Charlie said, "I am very interested in taking data and translating it into sounds and objects, things other than normal graphs. As well as being interesting artistically, I think this can also be a help in analyzing data ... This can potentially help scientists understand things from another perspective."**

# Art and Science

*from Page 1*

"Through talking to scientists at Reading (and the Bjerknes Center) my interest became deeper. Overall, I'm interested in making artworks that make people think about their responsibility for the planet and where we, as individuals, sit in relation to the huge, yet delicately balanced, natural forces that surround us. For me, the general field of atmospheric sciences does this," Charlie said.

**Meteorologists and Art**

In Charlie's eyes, meteorologists tend to bring together a number of aspects of science, not just one, when attempting to understand weather. Aspects of maths, physics, biology and chemistry all feature in one way or another.

"I think this need to look at different aspects probably gives meteorologists a broader approach to investigation which assists in a collaborative approach between science and art," he said.

Charlie referred to the Jacob Bjerknes' wire model of a cyclone as an example of looking at science in an artistic and open-minded manner. "At the time, this was cutting-edge research – enabling people for the first time to begin to analyze weather. However, to do this, Bjerknes had to make what was, in effect, a sculpture. Although it is now possible through computer software to make a much more 'accurate' model, there is something more immediate and engaging when viewing an object or drawing made by a person who is trying to understand and communicate an idea for the first time. This is where art and science can fuse together very well," Charlie said. Charlie has been asked by the Bjerknes Center to make a new version of the cyclone model and will begin work on it next year.

***"Timeline"***

The installation that Charlie is currently working on is called *"Timeline."* It will be installed in Bergen at the end of November and remain there until the New Year. It relates to the effects that natural phenomena have on the planet and its climate. It features a six meter-long lacustrine mud core from a lake in Norway revealing 11,000 years of history, together with two geiger counters revealing live cosmic rays. The mud core has samples taken from it along its length. These have been data-analyzed and the data converted into digital sounds. The geiger counters sit inside two large specially constructed bass drums which each have their drum heads pointed upward. The outer coating of each drum resembles a section of a mud core and the drum head is painted black with 20 mm of water sitting on its surface. Each geiger counter links to some electronics, which cause the bass drum head to be struck from underneath. This makes a drum beat and a ripple in the water each time a cosmic ray passes through the drum. The drums signify 'time marching on' and suggest an infinite process. The idea, therefore, is to relate evidence of 11,000 years of activity in the mud core to a never-ending, live process. If you walk beside the core, you hear different sounds emanating from it. If you stand back you hear a wide stereo spread of sound, punctuated at either end by the bass drum pulse beats.


***"Sun Fountain"*** **- a 'fire and water' fountain featuring a series of small sculptures based on Campbell-Stokes sunshine recorders that sit in a bed of water. Each sculpture has a bronze bowl-like structure which is made up in layers. The top layer is a special fabric and resin construction, under which is a layer of gold. Over time, each sunshine recorder crystal ball gradually burns away the top layer, to reveal the gold underneath.**

**His Dream**

Although Charlie has many artistic accomplishments, there is one work in particular that he dreams of completing. This is a piece called *"Sun and Moon/Sonic Spaces,"* which essentially involves data being streamed live from weather stations across the globe to 'collection domes' – basically, a network of six to eight small observatory-like domes, situated at or near locations on the North and South Poles and the Equator. The data being streamed to each 'collection dome' is converted into sound, making each dome become a 'sound chamber,' resonating with different rhythms and drones. As a spectator inside a dome, you would experience the collected sounds triggered by the weather around the globe simultaneously so that, if you were in a dome in the U.K. during the day, you would be hearing music generated by the weather during Australia's night, mixed with the current daytime U.K. weather, plus other simultaneous sounds from around the globe –

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*Art and Science, Continued from Previous Page*

morning, afternoon, evening or night – depending on which time zone a particular weather station sits. Part of this work would involve the creation of a device he would like to develop with a scientist, similar to a Campbell-Stokes sunshine recorder, so that underpinning all the weather sounds would be a continuous stream of drones produced by solar activity and moonlight.

Charlie Hooker is open for new projects. For the last two years, he has coordinated the research and exhibition activity of the Spring Group. This currently involves art/science collaborations linking four universities. Projects include work linking urban meteorology to sounds and images; a video artist working with a scientist and a sociologist to make an installation linking human temperament to chaotic weather equations; and an artist working with clinical scientists to assist patients in the management of pain. If you are interested in a collaborative work with professor Hooker, or if you wold like to listen to the *"NAO Music,"* send him an e-mail at: charliehooker@btinternet.com.

# Nobel Prize

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Pachauri, Chairman of the IPCC, also said in an interview with the Associated Press, "They should feel deeply encouraged and inspired. It is their contribution which has been recognized," said Pachauri.

The announcement comes about one month before the release of the Synthesis Report, which is targeted to policymakers. The award is a great honor to all involved with the IPCC, and also serves to heighten public awareness of global climate change.

# AGU Meeting Size

*Warren Wiscombe*

I received about a dozen responses to my plea for feedback on the increasing size of the Fall Meeting. This low response from a membership of thousands tells an obvious story: meeting size is not yet a burning issue among AS members. Nevertheless, I received enough thoughtful and sometimes passionate responses that I wanted to share their gist with you. And, we Section officers, after all, are responsible for anticipating and ameliorating future problems, not just responding to situations that are already out of hand. If you have further thoughts, please send them to our Editor for possible inclusion in a Letters to the Editor column.

At first, I thought to paraphrase our members' responses, but later decided to simply let the writers speak in their own voices. I have taken the liberty of editing out some less relevant material, reducing size, and simplifying some convoluted phraseology, but have not damaged any intended meaning. Also, I have reserved the right to have the last word.

The good news is that AS abstract numbers leveled out this year at 1,393, compared to 1,414 last year. The Meeting as a whole received 7.5% more abstracts this year (13,910), so clearly AS has, at least for this year, exerted a commendable level of self-control.

Some respondents urge keeping the Meeting as is in spite of "growing pains:"

"I think the larger meeting size is good. I would suggest some rethinking about the length of talks and who gets to give them. The meeting is now too big for 15 minute talks. I would urge our Section to encourage many more invited speakers in each session and to have invited speakers give longer talks, reserving a small number of short talks (no more than 25% of the long ones) for grad students or post docs."

"I occasionally attend the Annual Conference of the National Science Teachers Association. Attendance is about 18,000, a little larger than Fall AGU. To deal with their huge size, they have made a pretty successful effort to help attendees with advance planning tools. Their website (http://www.nsta.org/conferences/2007den/) includes a user-friendly tool for crosscut-searching the agenda in various ways and putting together a personal itinerary for the meeting. Their tool allows homing in on event types, subjects, and other ways to connect different sessions together. While of course AGU has such a tool, I don't think it is as easy to use as NSTA's, and I would recommend AGU have a look to see what ideas they might usefully borrow. Anything AGU can do to improve the personal scheduler would help to make what is at first blush an unmanageably large parallel meeting into each person's private serial meeting."

"... a meeting with that many parallel sessions is hard to organize. Avoiding conflict between sessions with more or less the same or complementary subjects is not easy. However, AGU being large makes it an excellent meeting to acquire a broad view in the field. I would keep AGU Fall as is because of that aspect. Also, the organizers give a good picture of the program before we arrive, which helps a lot. Yes, I vote for keeping it as it is."

***"AGU being large makes it an excellent meeting to acquire a broad view in the field. I would keep AGU Fall as is because of that aspect."***

"The Fall Meeting is by far the most satisfying and stimulating event of the year from my standpoint, on both professional and personal levels. In roughly equal parts I attribute this to its size, its incredibly diverse scope, its location, and the time of year. The opportunities for interdisciplinary infusion and interaction are unparalleled and I see no way of maintaining this highly desirable state without having the meeting at the size it is. I strongly believe that the large attendance and the atmosphere that it engenders is due to the location and time frame, so I therefore also see these as important features to retain. I realize that the burgeoning size of the meeting is becoming a concern (as I guess it has been for some time), but for all the above reasons I firmly believe that the current formula is "winningest" and should remain unchanged. I don't object to it growing, either, though obviously the Moscone venue will eventually determine an upper limit."

"I have to agree that there is not really a problem. I like the meeting the way it is. Indeed sessions should be nearby, if possible, and similar sessions should be merged so as to not compete, but it is very stimulating because everyone is there. I just got back from IUGG, which was the most poorly organized conference I have ever been to. The schedule was not posted on the web until a week before the meeting, so nobody could plan ahead of time. And when it was posted it was a 30 page pdf file listing all the talks, with no search capability. The poster session was half way across town, so nobody went. It made me appreciate how well AGU does it."

"The Fall meeting is great because there is so much to choose from and so many people to talk to. Anything we do to limit talks will cause fewer people to come and hurt the meeting. My model of knowledge is a river: I drink what I can and let the rest go by. It used

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*Meeting Size, From Page 4*

to be a mountain that was always getting bigger ... and I could not climb fast enough. Now I do not worry about missing sessions, or overlaps. If there were fewer sessions and talks, the younger scientists in particular would have less opportunity, and I would not like to see that."

"I am writing not to offer criticism of AGU meetings, but to praise AGU for its efforts to maintain the quality of its Fall Meeting in the face of its growth so far, and to express the hope that it can continue to do so. I have often wished that I could be half as productive during an hour in my office as I am in an hour in the hallway of Moscone during the AGU.

"This past March I had the misfortune of attending a meeting larger than AGU in Chicago. I was appalled at how inconveniently and ineffectively the meeting was organized. Almost from the first hour, the most ubiquitous topic of conversation was the disastrous meeting schedule. In that spirit, I can offer you some of my criticisms of that event, in the hope that AGU can avoid a similar fate.

"(1) Keep concurrent sessions (talks and posters) belonging to the same Section as spatially concentrated as possible. While I truly value the interdisciplinarity of an AGU meeting, it is most important to me that I can discreetly and easily slip between the most relevant talks in multiple Atmospheric sessions, and catch a few short conversations at the posters in between.

"(2) Real scientific discourse happens in front of posters, sometimes more than what takes place in the meeting rooms. But, not all meeting attendees can stand for hours at a time, and scribbling on scraps of paper is awkward at best while standing. Thus, I have always been impressed by the availability of chairs and tables outside meeting rooms at AGU meetings, and I sincerely hope that these aren't crowded out by growth in meeting size.

"While I hope that the AGU meeting can continue to grow as our fields develop and increase in importance, and while I hope we can keep the free flow of ideas between Sections that has always made Fall AGU my meeting of choice in a given year, the purpose of that meeting has to be to facilitate scientific communication. If it fails to accomplish that due to thoughtless expansion, it would be far better to have Sections meet separately to preserve the quality of the meeting."

Other respondents are less satisfied with the Meeting growth, and some see or foresee serious problems:

"Please count me among those who would like to see something done to deal with the growth rate. I'm guessing that break-off meetings like Ocean Sciences will be under consideration, but the problem is that this really dilutes the original interdisciplinary sense of the term 'geophysical.' It's a tough problem.

"I agree that the trend to mini-sessions and mini-talks is counterproductive. I served on the Program Committee for several years and am familiar with the trade-offs. I think the solution must ultimately be more selectivity in both sessions and abstracts. Thus, I was very surprised to see 20 Union sessions planned – the number used to be 10. Seven of the 20 have 15 abstracts or less, and some Union sessions are on quite generic topics (geospatial modeling, scaling and nonlinear variability) or topics that have been addressed in many other recent meetings (carbon sequestration)."

***"It is very difficult even to sort out which sessions I should attend, let alone be able to actually take in presentations of interest that often occur in multiple parallel sessions."***

"My opinion on the AGU Fall Meeting size is that it has been out of control for at least the past three to four years, insofar as it is very difficult even to sort out which sessions I should attend, let alone be able to actually take in presentations of interest that often occur in multiple parallel sessions. I also have found the prospect of fighting hordes of fellow attendees to be an increasingly unattractive activity, even though it is a 'local' meeting for me."

"I understand the way AGU is where WE HAVE TO BE in December but I think the size is ridiculous. This year is the first time I felt cheated on parallel session conflicts so strongly in my own field. I don't even try to get to anything outside of AS. We cannot keep learning new things if we cannot get to related subject talks ... I was trying to get to UT/LS sessions and learn some aerosols – plus the urban-rural and satellite material. These are rather connected and they were constantly on top of one another ... I also found the two-building switches very annoying. But ... I don't have a good solution and I have no idea how to stop the steamroller."

"I attended the AGU Fall meeting for the first time last year. I had heard it is big, but – it was big! And now you say it will get even bigger ... More to the point, last week I had to make a choice between attending the AAAR annual conference and the AGU Fall meeting. The choice came down to the meeting size – I felt AAAR, with a size under 1,000, offered better networking opportunities than my experience at AGU last year. The AGU meeting was simply too big, and I wasn't able to hobnob well with many others in my field (aerosols). By the way, I paid for my 2006 AGU trip personally. But I won't be doing that again."

"With increasing size, I can see the need for more poster sessions. The total number of posters is, however, not so much the issue as traffic/people flow. I have seen much smaller meetings with bad traffic flow on account of the particular site's arrangement of rooms/space, etc. Having sessions in separate buildings would be the worst of all possibilities – yet this has happened and is happening with AGU meetings. Perhaps inevitable, but this problem should be looked at more carefully."

"The Fall meeting has become so large and unwieldy that I totally dread it. Along with the growth in size and participation, in my opinion there has been an overall decline in quality which is a strong justification for looking for ways to slow down the freight train.

"Since 'everyone is going to be there,' people feel compelled to be present, even if it means recycling results or presenting ideas that are not ready for prime time. I think the onus for changing the situation rests of the Section Secretaries – but if they think out new guidelines and consistently implement them, the community will catch on.

"Suggestions:

"(1) Encourage thematically linked special sessions at the Spring meeting instead of fighting for space/time at the Fall meeting. The meeting secretaries would have to be proactive for this to happen. The advantage is that such linked sessions could be successive rather than parallel as has been the case in San Francisco (to the frustration of many).

"(2) Some big sessions (e.g., Aura two years ago) ended up in the Marriott, not the Moscone center. This is a huge negative as it discourages the 'little of this, little of that' that is supposed to be part of the big meeting. This is another reason for going with (1) as an approach.

"(3) Discourage small sessions on repetitive topics. There is simply no reason for special sessions on similar topics year after year. The truth is that there is little progress in one

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*Meeting Size, From Page 5*

year, and the same people who came the year before are meeting again – and probably with a workshop in between! RAISE THE BAR! If someone wants a special session less than two years after the last one with a similar title, they should have a defensible reason for wanting it (in terms of measurable scientific progress). Otherwise, they should wait."

One person felt the problem would be self-limiting: "Once the Meeting does break then people will start not to come. That includes those who think the meeting is too big – they may not come as often. In fact, there were a few complaints about last year's meeting (e.g., traveling across the street between sessions because not all AS sessions were grouped together) and if that continues, we may lose some of those people."

Here are some of my own views:

These issues have been ignored in the past. There was even a poll about them, which mainly concluded that people wanted the meeting to stay in San Francisco, stay in December, and not grow to six or seven days. But there has been a very light controlling hand, including instances of sessions with subjects that were just too close and should have been merged. In the past, the major goal was growing the AGU membership and the meeting size, so the tendency was to ignore overlap and promote a "y'all come" attitude. After all, the meeting was small enough that it still had room to grow inside a single building. No more.

I prefer concentrated serial sessions on similar topics located geographically close together, and a cracking down on nearly identical sessions year after year with little new to report. When the whole meeting could be contained in a single building, I did not mind the barely-controlled chaos too much, but now that we are spreading to two Moscone buildings PLUS the Marriott, all at least a 5 to 10 minute walk apart, my concern is rising exponentially.

One of many solutions tossed around, which I like, is to have conveners propose sessions for inclusion under major categories, which can of course be somewhat fluid from year to year as major subjects are born and die. A natural limit to growth is when we get more than, say, two days worth of sessions proposed to a major category. That should trigger a warning bell. (If we allow four to five days, then we are just creating a specialty meeting of which there are already many; the goal of AGU is to have time to go to other sessions in other major categories besides your own.) If the two-day warning bell goes off, we need to begin to merge/decline/postpone sessions in order to keep the category under, say, 2.5 days.

In summary, I think that almost everyone would agree that we need to be vigilant to avoid:

* redundancy among sessions;
* parallel sessions on similar or complementary topics;
* running back and forth between the Marriott and Moscone E, S, N.

People are beginning to see a need for some gentle restrictions on the "Wild West" atmosphere, where anyone can get a session on any subject at any time with almost none rejected. The Wild West in San Francisco itself only lasted about 50 years, from the time of the Gold Rush to the time of the earthquake. At some point a natural human desire for order spells the end of any period of uncontrolled and unlimited growth, and this is now beginning to happen in the case of the Fall Meeting just as it happened in the real Wild West.

# Chapman Conference: The Role of the Stratosphere in Climate and Climate Change

*Juan A. Añel*

An AGU Chapman Conference on the role of the stratosphere in climate and climate change. The conference program was divided into six different topics: a) general dynamics, b) climate change and the stratosphere, c) the tropics, transport and statistics, d) prediction and the stratosphere, e) solar variability, and f) modeling/ozone assessments. About 50 oral contributions (15 invited) and more than 40 posters were presented, all of them displaying the latest advances in stratospheric research.

One of the major themes of the conference was how stratospheric changes will affect surface climate in the coming decades. For example, it was shown that ozone loss in the Southern Hemisphere has affected Antarctic climate. In the next 50 years, the ozone layer is expected to recover, yet greenhouse gases will continue to increase. Understanding the role of the stratosphere as climate changes is a major challenge. Other results include the observed broadening of the Hadley circulation over the last 25 years, the comparison between low-top and high-top modeling experiments, and the possible role of the ocean in vertical coupling as climate changes. Also, a robust upward trend in tropopause height and downward trend in its temperature have been observed. These changes to the tropopause seem to be associated with stratospheric temperature changes.

The conference finished with the perspective of the next SPARC General Assembly in 2008 in Bologna (Italy) http://www.cmcc.it/sparc-ga2008. More information on the Chapman Conference can be found at (http://www.agu.org/meetings/chapman/2007/ccall/)

**Participants at the Chapman Conference enjoy the setting of the Greek island of Santorini.**

# From The Readers

*Share comments, ideas, questions, pictures, and more with your fellow Newsletter readers*

Scientists at the University Corporation for Atmospheric Research (UCAR) and the National Centers for Atmospheric Reserach (NCAR) in Boulder, Colo., participate in a handful of outreach programs. Susan Foster, Deputy Director of UCAR's Office of Education and Outreach, and Susan Buhr, the Director of the CIRES Education and Outreach Program at the University of Colorado, share with us the pictures on the next page from such programs. Buhr also sent the listing for the Atmospheric Science and Climate Literacy Workshop that is on the next page.

*- Anna Harper*

**People of all ages enjoy learning about polar regions during this educational game developed by NOAA that was presented at the NCAR outreach booth during the Taste of Colorado celebrations in Denver City Park.**

**Above two pictures: Girl scouts explore weather and climate in an annual program at NCAR organized by post docs in the Advanced Studies Program, in collaboration with UCAR's educators and the Mile High Chapter of the Girl Scouts.**

### 20th Anniversary of the Montreal Protocol - *"Athens Statement"*

I am pleased to put to your attention the *"Athens Statement,"* following the scientific Symposium "Ozone Depletion: from its discovery to Envisat and Aura" which was held in Athens, Greece, on September 23-26, 2007, on the occasion of the 20th Anniversary of the Montreal Protocol.

The Symposium was co-organized by WMO, UNEP, the International Ozone Commission, the Academy of Athens and the National Observatory of Athens and brought together several eminent scientists, among which 3 Nobel laureates, and representatives of industry and international organizations.

The *"Athens Statement"* can be found on the Symposium's webpage: http://www.20yearsmontrealprotocol.org.

*Christos Zerefos, President of the National Observatory of Athens, Secretary of the International Ozone Commission*

# 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:**

- 2008 NOAA Climate and Global Change Postdoctoral Fellowship Program - Deadline Jan. 1, 2008
- Assistant Professor of Meteorology, San Jose State Univ. - Deadline Nov. 9
- Director and Chair, School of Meteorology, Univ. of Okla. - Reviews begin Nov. 12
- Faculty position, Center for Atmospheric Ocean Science, New York Univ. - Deadline Dec. 1
- Faculty position in Aerosols and Climate, Purdue Univ. - Reviews begin Nov. 1
- Faculty position in Dept. of Atmospheric, Oceanic and Space Sciences, Univ. of Michigan - Reviews begin Nov. 1
- Tenure-track position in Atmospheric/Physical Chemistry, Humboldt State Univ. - Deadline Nov. 2
- Postdoctoral Research Fellow, Atmospheric Chemistry Modeling Group, Harvard Univ.
- Tenure-track position in Atmospheric Sciences/Climate Dynamics Duke Univ. - Dec. 1
- Postdoctoral Researcher at UCLA-NASA/JPL Joint Institute for Regional Earth System Science and Engineering
- Tenure-track Faculty Appointment, Dept. of Geography, Simon Fraser Univ. - Reviews begin Jan. 8, 2008
- Tenure-track faculty position - Mesoscale Physics and/or Dynamics, Colo. State Univ. - deadline Nov. 30
- Tenure-track faculty positions, Dept. of Meteorology at The Pennsylvania State Univ.
- Three-year postdoctoral Fellowship in Ocean and Climate Sciences, Walker University at the Univ. of Reading - Deadline Oct. 26
- Tenure-track faculty position in Urban and Regional Air Quality, Rice Univ. - Reviews begin Nov. 1

**Biogeosciences**

- Assistant professor, Biogeographic aspects of Global Change, Univ. of Wisconsin-Madison - deadline Nov. 1
- Postdoctoral position, South Dakota State Univ. - explore the biogeophysical consequences of expanded cultivation of biofuel feedstocks across the Northern Great Plains - deadline Nov. 1

**Ocean Sciences**

- Assistant or Associate Professor, College of Oceanic and Atmospheric Sciences, Oregon State Univ.

**Interdisciplinary/Other**

- Please see the website for the extensive list of interdisciplinary opportunities.

### Student Opportunities

- Graduate Assistantships in Environmental Chemistry, State Univ. of New York-Environmental Science and Forestry
- Jonathan O. Davis Scholarship - Deadline Feb. 8, 2008
- M.S. and PhD Opportunities in Marine Science, Univ. of Georgia
- PhD Fellowships, Dept. of Earth and Environmental Science, Univ. of Pennsylvania - Deadline Dec. 1

## Conferences

- **AGU Fall Meeting** (Dec. 10-14) - San Francisco, Calif. http://www.agu.org/meetings/fm07/

- **Atmospheric Science and Climate Literacy Workshop**

What does a student or citizen need to know to be literate in atmospheric and climate science? This big question will be addressed in a workshop that will be hosted by UCAR from November 27th through 29th in Boulder, Colo. Workshop participants will identify essential principals for weather, climate and atmospheric science literacy, building upon previous literacy efforts and the American Association for the Advancement of Science public literacy projects. Participants will include research scientists, policy experts, educators and non-governmental organizations. The workshop is funded by the National Science Foundation and the National Oceanic and Atmospheric Administration, co-convened by UCAR and CIRES, and co-sponsored by AGU, AMS, NESTA, and NAGT.

For those interested in watching the workshop or offering comment remotely, a live webcast of the primary presentations and keynote talks will be available through the UCAR website http://eo.ucar.edu/ascl).

The event will be video-conferenced at five sites around the United States which are yet to be identified.

For more information contact Susan Foster at 303-497-2595 or susanf@ucar.edu.

- **American Physical Society March Meeting Focus Session on "Advances in Atmospheric Aerosol Science:"**

Mar. 10-14 in New Orleans http://www.aps.org/meetings/march/index.cfm (contact: Shan-Hu Lee; Department of Chemistry, Kent State University, Phone: 330-672-3905, Fax: 330-672-3816, slee19@kent.edu; Kevin Wilson, Chemical Sciences Division, Lawrence Berkeley National Laboratory, phone: 510-495-2474 Fax: 510-486-5311; krwilson@lbl.gov). Contributed talks from senior and junior researchers are solicited. Travel scholarships available for graduate student speakers who join the Division of Chemical Physics. Abstract Submission Deadline, Tuesday, November 27 (5 p.m. EST).

- **The Second Online Particle Mass Spectrometry Workshop**, Univ. of Leeds (U.K.), April 9-10, 2008

The past three decades have seen rapid advancements in the field of on-line particle mass spectrometry. This has culminated in recent years in the development of several research and commercial instruments. These instruments have provided valuable insights into the complex chemical composition of aerosol particles and have assisted in improving our understanding of the role of aerosol-gas interactions in heterogeneous atmospheric chemistry, both from an observational and laboratory perspective. Such information can be used for source apportionment and assessment of the impacts of aerosols on climate and health.

Keynote speakers include:-
Prof. Dr. Ralf Zimmerman: GSF-BIfA-University of Augsburg, Germany.
Dr. Manuel Dall'Osto: University of Birmingham, U.K.
Dr. Deborah Gross: Carleton College, U.S.

The aims of the workshop are to provide:
1)interaction of new and established researchers in the field of on-line particle mass spectroscopy;
2)discussion and review of novel applications and techniques, instrumental developments, and data mining techniques;
3)discussion of future directions of on-line particle mass spectrometry research;
4)encouragement of joint studies (the first workshop raised awareness of the benefits to be gained through collaborative projects involving both laser ablation and quadrapole-thermal vaporisation techniques).

The deadline for submission of abstracts is Dec. 18, 2007. To submit an abstract and for further information about this workshop, please go to: http://ncasweb.leeds.ac.uk/aerosol-ms/

- **Making Science Global: Reconsidering the Social and Intellectual Implications of the International Polar and Geophysical Years**

AS section members interested in Polar issues and the history of science may wish to attend this free two day conference to be held on Oct. 31 and Nov. 1, 2007 at the Smithsonian Institution's S. Dillon Ripley Center on the National Mall in Washington, DC.

This NSF-supported conference examines the impetus for (and the impact upon) science, society, and culture of the International Polar Years (IPYs) of 1882-83 and 1932-33, and the International Geophysical Year of 1957-58, as well as how historical perspectives might be useful for those involved in the current IPY in 2007-2008.

Speakers will explore the origins of these efforts, their political dimensions, and their consequences. Themes will include the place of the poles in human imagination; discipline formation; cultural nationalism, politics, and trans-nationality; the emergence of the modern geosciences; the uses of new technologies to explore the poles; changing assessments of the nature of human cultures in high latitudes; and polar contributions to environmental awareness.

A number of papers and posters focus specifically on atmospheric issues, and all speakers will address international, political, and technological dimensions of Polar science. The final session of the conference, "Polar History: Perspectives on Globalization in the Geosciences," intended to address recent history leading up to the current IPY, will be the opening session of the annual meeting of the History of Science Society, to be held at the Crystal Gateway Marriott.

For a detailed program complete with speaker bios and paper abstracts go to the following URL: http://www.nasm.si.edu/getinvolved/makingscienceglobal/. Registration is free, but required. Please download the registration form at: http://www.nasm.si.edu/getinvolved/makingscienceglobal/ipyregistration.doc, and send your information to the following e-mail address: makingscienceglobal@si.edu

Completed forms may also be mailed to:
David DeVorkin
Dept. of Space History, MRC 311
National Air and Space Museum
Smithsonian Institution
PO Box 37012
Washington DC 20013-37012 USA

On behalf of conference organizers David DeVorkin, Roger Launius, and myself, I look forward to your participation in this meeting.

James Fleming
AS section member

## Other Opportunities

- Call for papers on "Diagnosing and Modeling of the Tropopause: Structure, Dynamics, and Variability" for JGR-Atmospheres - deadline Dec. 12, 2007. http://www.agu.org/pubs/call/TROPO1.html