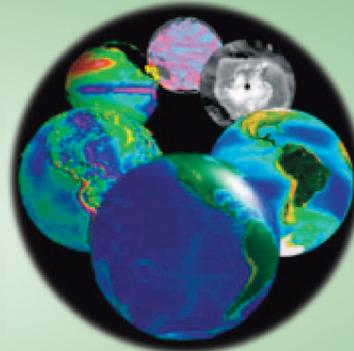


BULLETIN

of the

PORSEC

Association



Volume 3.3 November 2009

Dear Readers of the Bulletin for the PORSEC Association,

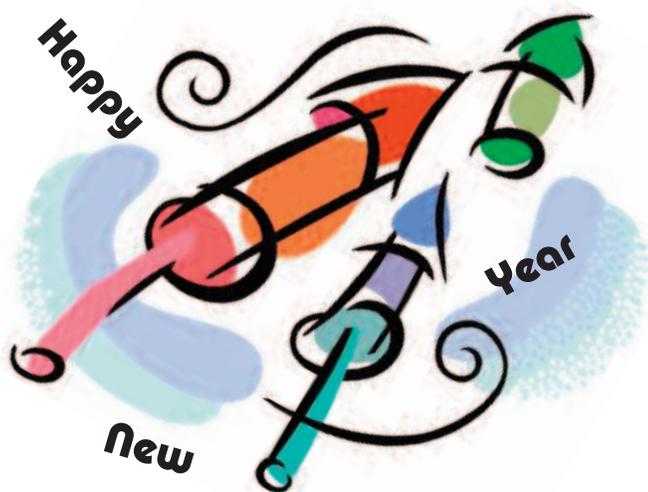
In this issue we present more information about next year's conference. Please start planning to attend PORSEC 2010 in Taiwan, October 18-23. Some details are in a separate section below, but keep an eye out for more information on the web-page coming soon. The President of PORSEC Association, Jim Gower, and his assistant Stephanie King, report in this issue on a planning trip they made to Taiwan in August.

There will also be a tutorial before the conference, so you might consider finding travel funds for a young person in your laboratory. We are aiming to offer a few scholarships, but the funds will typically have constraints on them as to who may apply for each of them. We expect each recipient to provide partial matching funds from institutional or private sources.

In this issue there is a call for nominations of PORSEC Association officers and members of the Scientific Organizing Committee.

There are reports on past and up-coming meetings other than PORSEC ones in this issue of the Bulletin. We hope you find them of interest. We would appreciate hearing from you and print any comments about the topics that you may have.

Sincerely yours,
Gad Levy and Kristina Katsaros



Contents

PORSEC visit to Taiwan	2
PORSEC 2010 - less than 1 year away	4
PORSEC 2010 Tutorial	5
Sentinel 2 Asia - Sustainability weeks at Hokkaido University	6
ESA Storm Surge Project	7
Notices, job opportunities etc	8
Membership Information	16

PORSEC Visit to Taiwan 2009, August 23 - 28

by Stephanie King and Jim Gower

On Sunday, August 23, Jim Gower and I arrived in Taiwan to discuss PORSEC2010 preparations and promotion. We were greeted at the airport by Ming-An Lee, from the National Taiwan Ocean University (NTOU), head of the local organizing committee, and his student, Yi Chang. They were gracious hosts of our visit.

From the Taoyuan International Airport (Taipei), we first drove to Keelung, a busy port town on the north coast of the island and home to NTOU. The local organizing committee (LOC) was deciding between Keelung and Taipei for the location of PORSEC2010. Ming-An had arranged beautiful rooms in the Evergreen Hotel looking over the busy harbour. Several temples and a coal-fired power station are also visible from the hotel. After checking-in Ming-An and Yi took us to an elegant Japanese fusion restaurant across the street from the hotel where we ate a delicious 8-course lunch. This restaurant has great PORSEC potential. It was about 35 C outside, but will be cooler in late October when PORSEC2010 is held. We explored Keelung for the rest of the afternoon on foot. Yi suggested we see the night market which is famous in Taiwan for its seafood. The market starts to get busy around 6pm and by 9pm it's a lively scene and packed with people.

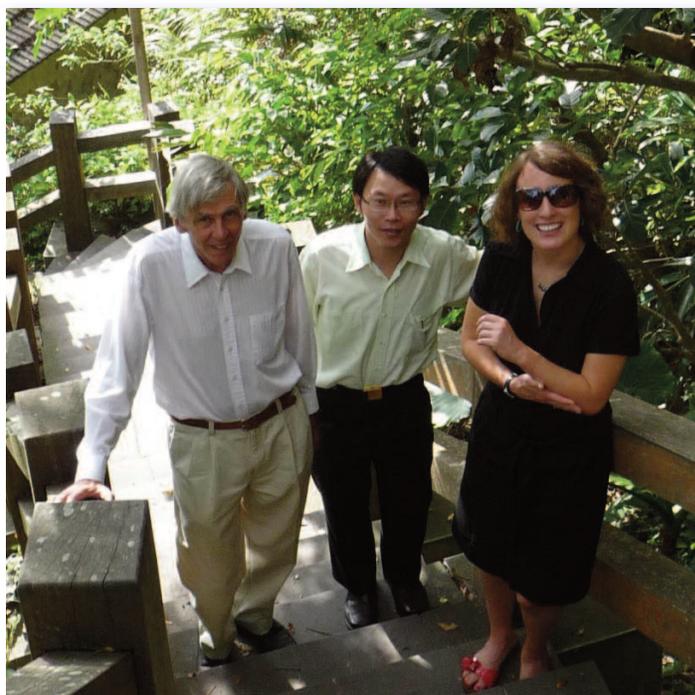
The next morning, Ming-An picked us up for a 10 am start at NTOU. The drive is less than 10 minutes from the hotel, but there is no sidewalk and the heavy traffic would make it an unpleasant walk. The meeting was attended by LOC members from NTOU, National Taiwan University, the Technology and Science Institute of Northern Taiwan, National Cheng Kung University, and National Central University.

Jim made a presentation on the PORSEC organization and past meetings. Ming-An led a discussion on the progress of the planning. Although the conference location was yet to be decided plans for funding, registration, sessions and the social program were well underway. Dates and topics for the student tutorial were discussed, and we chose a logo for

the meeting. Local students had submitted 6 designs and the winner received prize money.

The LOC meeting was followed by a public lecture. Jim Gower spoke about PORSEC, climate change and ocean colour. I spoke about MERIS, Sargassum and plankton blooms in coastal waters.

Later, Ming-An and I Hsun Ni (also of NTOU) took us on a mountain walk overlooking the coast and a lighthouse at the top of high cliffs. It was hot, but beautiful. To get there the coast road gives spectacular views of the north part of the island and small fishing villages. We returned to join a group from NTOU for dinner at an interesting fish restaurant on the water and close to the University.



Jim Gower, Ming-An Lee, and me on the lighthouse trail.

On Tuesday, the 25th, Ming-An showed us the NTOU meeting facilities. There seems to be plenty of spaces suitable for the PORSEC meeting, and there is a large elegant lawn which would be lovely for a PORSEC banquet, weather permitting. There is a cafe on campus and a large cafeteria. After the tour of NTOU we stopped briefly at a seafront park between NTOU and Keelung. Many logs, apparently from the recent Typhoon Morakot, were floating among rocks, which contain interesting fossils and rock balls.

We drove on the toll motorway to Taipei to the Howard International House near National Taiwan University, site of PORSEC 2010 if in Taipei. The conference facilities are large (600 people), but too big for us, and the smaller facilities feel like a minor part of something larger. In the afternoon, Jim gave a talk on PORSEC and MERIS to the Taiwan Ocean Research Institute.

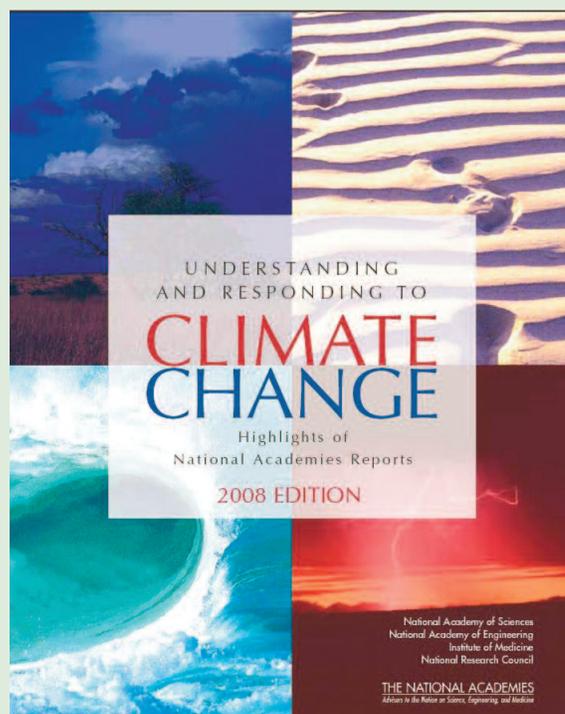
On Wednesday the 26th, Cho-Teng Liu from National Taiwan University (NTO) showed us around Taipei. He took us by bus to a temple on the east side of Taipei, on a mountain slope, looking out across wooded slopes and valleys filled with housing and with the tower of Taipei 101 looming mistily in the background. We then caught the metro to the bus to the National Palace Museum, which houses the National treasures of China. The museum closed at 5pm and we made our way by bus and metro to the town of Danshui at the mouth of the Danshui (Fresh-water) River. There is a busy boardwalk along the river where we watched the sun, brilliant red, setting into the haze. We took a ferry at grand speed to another pier, and walked along a wharf and across a bridge in the dusk to catch the bus back to the metro. Cho-Teng certainly gave us an excellent day.

On Thursday morning, Ming-An picked us up and took us to the National Central University (NCU), about an hour and a half south of Taipei. We joined a conference on geo-informatics where we had a poster promoting PORSEC. On the way we discussed the tutorial and make a tentative plan for lecturers and a schedule. In attendance was a group from KARI in Korea and Prof. Hajime Fukushima, the water colour expert from Tokai University, Japan. We heard a keynote speech by Prof. Haruhisa Shimoda, also from Tokai University, summarizing Japan's space remote sensing program.

After lunch, we left the conference to visit the National Space Organization and met with the director, Dr. J.J. Miao. We were given a tour which included a promotional video and the viewing of the satellite operations facilities. We were shown a presentation with examples from Formosat-2, their high-resolution imaging satellite (2-metres pan, 8 meters colour). We encouraged results from the Formosat satellites to be shown at PORSEC 2010.

In the evening we attended the conference banquet at a large resort-hotel near NCU. Ming-An did a great job of promoting PORSEC 2010 during the dinner, leading us to various people for introductions, bowing and toasting. Dinner was great. The speeches were short the wine was good and free-flowing. It was an enjoyable last-evening to our trip.

Jim and I both agreed that Keelung is the most appropriate location for PORSEC 2010, and we made the recommendation to the LOC who seemed happy with it. Ming-An was an excellent host for us and we feel sure he will make PORSEC2010 a success at NTOU.



The National Academies have released the 2008 edition of "Understanding and Responding to Climate Change," a free booklet designed to give the public a comprehensive and easy-to-read analysis of findings and recommendations from our reports on climate change. Download it at

<http://dels.nas.edu/climatechange/understanding-climate-change.shtml>

in a fully searchable format.

REMINDER--PORSEC 2010 IS LESS THAN ONE YEAR AWAY!

The overall theme for the Tenth Biennial Conference of the PORSEC Association is
“Connecting Regional Impacts to Global Environmental Change”.

DATES: 18-23 October 2010,

**HOST AND LOCATION: The National Taiwan Ocean University
(NTOU), Keelung, Taiwan.**

Local contact and organizer is **Professor Ming-An LEE**

Dean, College of Ocean Science & Resource

National Taiwan Ocean University

No.2, Beining Rd., Keelung

Tel: +886-2-2462-0866

Fax: +886-2-2463-3985

Email: malee at ntou.edu.tw; cosar at ntou.edu.tw; porsec2010 at ntou.edu.tw

Details are available on the website <http://porsec2010.ntou.edu.tw>.

Four Special Sessions have been identified so far:

Satellite Observation Systems,

Global Change,

Natural Hazards, and

Coastal Environment.

PORSEC2010 is calling for further session proposals and conveners. Please contact Prof. Ming-An Lee at the above address.

The National Taiwan Ocean University is a comprehensive university specialized in marine affairs and ocean sciences, particularly in marine environmental informatics and fishery oceanography with satellite remote sensing and GIS. The fabulous beauty of Taiwan and the innate hospitality of our people will make it a memorable and pleasant stay for all delegates. We are looking forward to seeing you at PORSEC 2010 in Taiwan.

PORSEC 2010 is being organized with support and assistance of the National Taiwan Ocean University, the National Taiwan University, the National Central University, the National SunYat-sen University, the National Cheng-Kung University, the North-Taiwan Technology and Science Institute, Academia Sinica, the National Space Organization, the Taiwan Ocean Research Institute and the Central Weather Bureau in Taiwan.

PORSEC 2010 Tutorial

The PORSEC 2010 training tutorial will be held in Keelung at the National Taiwan Ocean University Campus on October 14th – 17th, 2010. Tutorials have been a feature of past PORSECs and have been found to provide valuable interaction between senior researchers and students. The lectures are 1 to 3 hours in length which allows time for the discussion and details not possible at the PORSEC conference itself. The tutorial lectures will be held for 3 days and cover a wide range of topics. The 4th day will be a science expedition on a boat with a special lecture given by Professor Ni. Lectures will be given by 14 senior scientists and will include both practical exercises and lessons. The course is aimed at graduate students, young professionals, teachers and professors. Lecturers are challenged to include practical examples of data use and examples from their research. 25 to 30 local and international students will attend. Please watch the PORSEC 2010 website (<http://porsec2010.ntou.edu.tw/>) for information on registration.

The workshop coordinators are Ming-An Lee, I Hsun Ni, Jim Gower and Stephanie King. The workshop will be held in classrooms at the National Taiwan Ocean University (NTOU).

Tentative Lecturers:

Werner Alpers (alpers at ifm.uni-hamburg.de): Retired professor from the University of Hamburg.

Abderrahim Bentamy (Abderrahim.Bentamy at ifremer.fr): Senior Scientist at IFREMER, France.

Josefino Comiso (josefino.c.comiso at nasa.gov): Senior Scientist with NASA Goddard (Maryland, USA) Cryospheric Sciences Branch.

Arthur Cracknell (apcracknell774787 at yahoo.co.uk): Former Editor in Chief of the International Journal of Remote Sensing.

Roland Doeffler (doerffer at gkss.de): Head of the Remote Sensing Laboratory at the GKSS Research Center

Craig Donlon (Craig.Donlon at esa.int) – Principal Scientist at ESA

Jim Gower (jim.gower at dfo-mpo.gc.ca): Research Scientist at the Institute of Ocean Sciences, Sidney, Canada

Kristina Katsaros (katsaros at porsec.nwra.com, katsaros at whidbey.net): Past President of the PORSEC Association and Adjunct Professor at the University of Miami, and Northwest Research Associates Inc.

Gad Levy (gad at porsec.nwra.com): Senior research scientist at the Northwest Research Associates Inc.

Eric Lindstrom (eric.j.lindstrom at nasa.gov): Physical Oceanography Program Scientist at NASA Headquarters (Washington, DC)

Cho-Teng Liu (liuchoteng at gmail.com, ctliu at ntu.edu.tw): Professor at National Taiwan University

Leonid Mitnik (LM_Mitnik at mail.ru, mitnik at poi.dvo.ru): Research Scientist and head of the Department of Satellite Oceanography at the Pacific Oceanological Institute, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok, Russia

I Hsun Ni (niih at mail.ntou.edu.tw): Professor at National Taiwan Ocean University

Danling Tang (lingzistdl at 126.com): Professor at the South China Sea Institute of Oceanology, local organizer for PORSEC 2008.

Sentinel 2 Asia – Sustainability weeks at Hokkaido University

By K. Katsaros

This report aims to share some information and data links with the readers of the Bulletin of the PORSEC Association. I was fortunate to be invited to speak at the 2nd International Symposium on Sentinel Earth, Advanced Utilization Studies of Satellite Data and Imagery Data. November 3-5 at Hokkaido University, Sapporo, Japan.

Organizers of the symposium were Hokkaido University, Asian Institute of Technology, University of Alaska, University of Palangkaraya, Japan Aerospace Exploration Agency (JAXA), Remote Sensing Technology Center of Japan (RESTEC) and other co-organizers too many to mention here. This was a very inspiring and rewarding visit to Hokkaido University, HU, and as is often the case, I learned far more than I could have shared. The symposium that I attended was only one of many activities in a program called “Sustainability Weeks” at Hokkaido University. The University has established a special program described by the President of HU, Hiroshi Saeki, as follows:

“In 2005 the Hokkaido University Initiative for Sustainable development (HUISD) was established and we hosted the International Symposia on Sustainable Development in 2006. Since 2007, Sustainability Weeks have been held every year with a set of new goals. This year marks the third Sustainability Weeks and will focus on the reinforcement of our network with overseas partnership institutions and the expansion of student participation. We plan to welcome individuals from overseas partner institutions to present the latest results of their research activities, and we will provide opportunities for them to engage in discussions with both young and veteran researchers from our university and the citizens of Sapporo. By doing so Hokkaido University can foster the impetus toward sustainability as we renew our commitment to the most important of tasks through Sustainability Weeks 2009.”

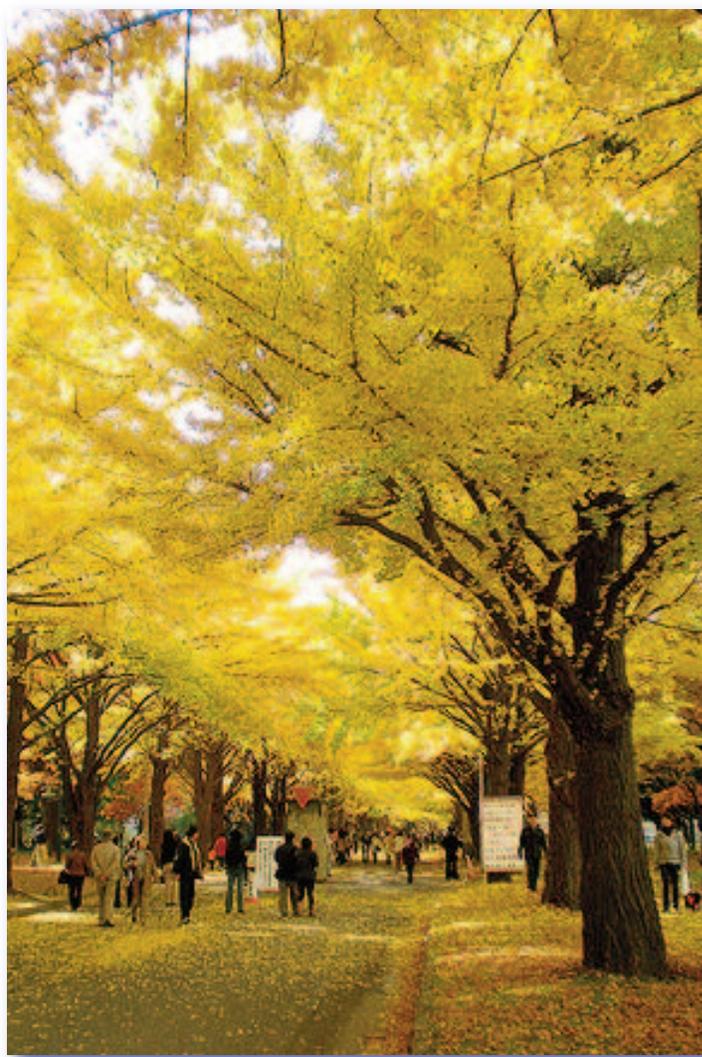
Please see more details via the web-link:
<http://www.sustain.hokudai.ac.jp/sw2009/>

My first impression on November 3, while getting over jet-lag came from a very nice walk on the beautiful campus in full fall- colors. That day the lectures and discussions were held in Japanese, so instead I studied a large set of posters prepared by local students and exhibited in the Conference Hall lobby. Subjects were naturally aimed toward agriculture and aquaculture, water and waste management, since HU was started as an agricultural college patterned after the U.S. land-grant colleges. The subjects included climate concerns, changes in the

arctic and the issue of population growth and changes in the age-distribution of Japan’s population. These were very thoughtfully and clearly presented.

The symposium itself focused on issues of “disaster mapping and agriculture” and “informatics for systems sensing” during the second day. I spoke on “Insights and discoveries about tropical cyclones by remote sensing leading to applications “. There were excellent reviews on the Global Change Observation Mission, GCOM, which has satellites focused on climate and others on water, the GCOM-C and GCOM-W series. PORSEC Association’s own Naoto Ebuchi gave a talk on marine surface vector winds.

A large session on November 5 dealt with wildfires and international exchange of best-practices and methods, where Indonesian, Japanese and Alaskan researchers/practitioners gave several talks. This exchange program falls under Sentinel Asia. Climate change effects in the arctic, especially effects in tundra regions and effects in the Okhotsk Sea, were also presented.



Fall colors at Hokkaido University Campus.

I was very impressed with this University supported effort to involve students and the citizens of the city in concerns of a sustainable world.

November 6, I was invited by Professor Naoto Ebuchi to visit his institute, the Institute of Low Temperature Science, originally established by Ukichiro Nakaya in 1941. Ebuchi-san is the leader of Atmosphere-Ocean Interaction Research Group. Much of his research is concerned with the Okhotsk Sea that borders Russia, China and Japan. For me it was thrilling to see historical references to Nakaya. I have always admired his work on ice crystals, which he grew in the laboratory, as well as the work of Wilson Bentley, in the USA, who was the first to photograph snowflakes in nature back in 1901. I was ac-

companied by an old friend, a retired professor of Hokkaido University, Masaaki Fukuda, who has worked on light in the ocean. He visited Sweden in the late 1950s working with Professor Jerlov, very well known in this field. He became a friend of my parents, a friendship which we have continued with occasional visits. This type of personal connections is what we hope that the PORSEC Association fosters. Often the international network rewards us with enlarged accomplishments and access to knowledge and data.

I think we could all learn from Hokkaido University and organize **Sustainability Weeks** in many of our communities around the world.

ESA Storm Surge Project

Information provided by A. Siripong



Our PORSEC Association member, Absornsuda Siripong attended the User Consultation Meeting on a Storm Surge Project in Italy this past September. She provided a nice report from the meeting, which includes ESA's plans for a 2 year project. Details can be found from links on the following web page:

<http://www.jcomm.info/SSucm>

The introductory section of this meeting report follows here:

ESA Storm Surge User Consultation Meeting
San Servolo, Venice, Italy, 17-18 September 2009.

The European Space Agency (ESA) is planning a 2 year project to look at how Storm Surge forecasting systems and applications can be improved through the innovative use of ocean, land and atmospheric satellite observations. Recommendations and Actions of the first

Symposium on Storm Surges that was organized by the WMO-IOC Joint technical Commission for Oceanography and Marine Meteorology (JCOMM2007SSS, see <http://www.surgesymposium.org/>) serve as a baseline list of potential activities for this project, as these provide the most up-to-date reference of the International consensus on the key activities required to develop Storm Surge capabilities.

A 2-day User Consultation Meeting was held from 17 to 18 September 2009, in Venice, Italy, in order for experts and potential users of the project to define the detailed set of user requirements for the project, including identifying the priority Earth Observation (EO) information, services and priority regions of interest. Input from this meeting was to be analysed and used to define the scope of the ESA Storm Surge Project and prioritise the activities.

The Meeting was jointly sponsored and supported by the Intergovernmental Oceanographic Commission (IOC) of UNESCO, in the framework of the UNESCO project on "Enhancing regional capabilities for Coastal Hazards Forecasting and Data Portal Systems. The world Meteorological Organization (WMO) joins to support this initiative, in the context of the implementation of comprehensive Storm Surge Watch Schemes (SSWS).

The experts and interested users participating in the Meeting had very productive discussions. Following the successful scientific forum at JCOMM2007SSS, the participants agreed that this ESA project would be timely in advancing the storm surge application tools by enhanced use of EO information. The programme, related information material and all presentations at the Meeting can be found from <http://www.jcomm.info/SSucm>.

NOTICES

Announcements of Interest to the PORSEC Community

NEWS

Remote Sensing of sea-ice and Haiti Floods; New AMS Journal

ENVISAT ASAR animation shows Canadian Arctic Sea Ice Freeze-up:

Although last year's summer sea ice minimum extent record was not broken, a record amount of the thickest multiyear sea ice was actually lost this season. This animation is comprised of Envisat ASAR mosaics of the Arctic Ocean and highlights the changes in sea ice between June and September 2008. To watch, please visit: http://www.esa.int/images/Anim-02-ASAR_GM_H.gif

Response From RADARSAT To Haiti Floods

Multiple major tropical storms/hurricanes hit Haiti this year: Fay, Gustav, Hanna and Ike. The UN stated that Hurricane Ike hit Haiti hardest in the Caribbean and estimated that some 800,000 Haitians, of which 300,000 children, were made homeless. Advanced capabilities of the proven Canadian RADARSAT-1 satellite and its next generation RADARSAT-2 were called upon in this crisis situation. The Canadian Space Agency produced images from its RADARSAT-1 data, while RADARSAT-2 data and image processing was gratefully provided by MDA/GSI in this emergency context. The Canadian Centre for Remote Sensing used this satellite data to map the limits of the flood extent. Canada is supporting other Nations and their front-line responders by contributing substantial improvements in imaging natural disasters, which is helping improve the management and evaluation of the impact of these disasters on human life and property. For more information or to see the flood imagery products, please visit: http://www.espace.gc.ca/eng/satellites/radarsat2/featured_image.asp

New AMS Journal: Weather, Climate, and Society

A new quarterly journal of the American Meteorological Society, publishes scientific research and analysis on the interactions of weather and climate with society. The journal encompasses economic, policy, institutional, social, behavioral, and international research, including mitigation and adaptation to weather and climate change. Articles may focus on a broad range of topics at the interface of weather and/or climate and society, including the socioeconomic, policy, or technological influences on weather and climate, the socioeconomic or cultural impacts of weather and climate, ethics and equity issues associated with weather, climate, and society, and the historical and cultural contexts of weather, climate, and society. Because of the interdisciplinary subject matter, articles that involve both natural/physical scientists and social scientists are particularly encouraged. Visit: <http://www.ametsoc.org/pubs/journals/wcs/index.html>

ANNOUNCEMENTS

International Research Initiative on Adaptation to Climate Change

Adaptation to climate change is a shared challenge that presents a unique opportunity for collaborative and comparative research to advance knowledge, shape policy and programs, mentor students and facilitate networks. Adaptation is the adjustment in natural or human systems in response to actual or expected climatic conditions or their effects, which moderates harm or exploits beneficial opportunities.

This Initiative will support the formation of multinational teams from Canada and from low and middle income countries, who will develop networks and programs of research. Successful applicants will initiate interdisciplinary and multisectoral collaborations with researchers, communities, practitioners and policy-makers in Canada and around the globe.

Full details on this call can be found at: <http://www.idrc.ca/iriacc>

Request for Applications: http://www.idrc.ca/en/ev-147903-201-1-DO_TOPIC.html

Letter of Intent Instructions and Application Form:
http://www.idrc.ca/en/ev-147904-201-1-DO_TOPIC.html

Completed applications must be submitted no later than January 7, 2010 to: iriacc@idrc.ca

The International Development Research Centre, the Canadian Institutes of Health Research <http://www.cihr-irsc.gc.ca/> the Natural Sciences and Engineering <http://www.nserc-crsng.gc.ca/> Research Council of Canada, and the Social <http://www.sshrc.ca/> Sciences and Humanities Research Council of Canada are partners in this funding opportunity.

ESA calls for ideas for climate change experiments from ISS

ESA's Directorate of Human Spaceflight, with support from the Directorate of Earth Observation Programmes, announces a Call for Ideas (CFI) to scientific institutes and industries aimed to obtain an indication of interest in research for global climate change studies using the International Space Station (ISS) in the 2012-2020 time-frame. A description of the call, a technical annex and forms can be downloaded from the following link:

http://www.esa.int/SPECIALS/HSF_Research/SEM3VBZRA0G_0.html

ESA currently has an extensive programme of current and planned Earth observation missions that support studies of global change. This includes ESA's Living Planet Programme, the Global Monitoring for Environment and Security (GMES) initiative, jointly carried out with the European Union, and ESA's Climate Change Initiative. Each of the individual missions under these programmes carries a specialised suite of instrumentation to address specific scientific and mission objectives.

The International Space Station (ISS) is an orbital platform with a permanent six-person crew. It will reach its fully assembled configuration in 2010, offering a multi-purpose research facility in low orbit until at least 2015 and possibly beyond, as continuing discussions between ISS partners strongly suggest. Potentially, the ISS can be used as an observation platform for experiments relevant to global change studies, supplementing ongoing and planned observations from dedicated platforms.

Proposed ideas should be complementary to the ongoing ESA Earth observation programmes and consistent with the research goals as described in ESA SP-1304, The Changing Earth: New Scientific Challenges for ESA's Living Planet Programme (a PDF copy of this document can be downloaded from the CFI website link indicated above. This may include:

- Specific observations, utilising ISS as observation platform, indicating the types of measurement/observations required
- Individual instruments or experiments, either externally or internally mounted, including demonstrations of future monitoring instruments
- Multi-user payloads or facilities, carrying multiple instruments

Payloads can be potentially accommodated either externally on ISS (outside of modules or on the Truss) or internally observing through a dedicated ISS window. The ISS orbit inclination of 51.6° and altitude of 350–460 km are different to those of most Earth observation satellites, offering other ground patterns over an area that covers about 95% of Earth's population.

The primary focus of the CFI is for observations related to climate change research. However, interest in the use of ISS for general Earth observation is also considered.

The output of the CFI will be used by the Agency to assess the research community's interest in the use of ISS as an observation platform for research and demonstrations in this field. Specifically:

- Assess the scope of interest in terms of research fields and instrument/payload type
- Focus content of a possible future Announcement of Opportunity for flight experiments/instruments
- Define a plan for future use of ISS for European climate change research and Earth observation

The closing date for the call is 21st December 2009.

Please note this Call for Ideas is not related to the (currently open) Call for Proposals for the Earth Explorer Opportunity Mission EE-8 by the Earth Observation Programmes Directorate.

COURSES, WORKSHOPS AND CONFERENCES

ICTP Course in Buenos Aires

THE 2010 SOUTHWESTERN HEMISPHERE WORKSHOP SERIES ON CLIMATE CHANGE: CO₂, THE BIOSPHERE AND CLIMATE

School of Exact and Natural Sciences, University of Buenos Aires, Buenos Aires, Argentina, 15-26 March 2010

ORGANIZERS: I. Orlanski (NOAA/GFDL, Princeton University, USA), C. Vera (FCEyN/University of Buenos Aires, CONICET, Argentina)

Co-sponsored by ICTP, GFDL/NOAA, Princeton University and the FCEyN/University of Buenos Aires

Participant registration deadline: 15 DECEMBER 2009

Applications are to be submitted online through the activity webpage

https://onlineapps.ictp.it/A=2175/S=a922678c2e99923faf867f3c17593823/LOGIN/APPLICANT/login_or_new.mhtml

Participation:

The workshop is mainly intended for young researchers and PhD students working in the areas of Physics, Chemistry, Atmospheric Physics and Dynamics, Climatology, and Oceanography, from Central and South America countries that are members of the United Nations, UNESCO or IAEA. The principal objective of the ICTP is to help researchers from developing countries through a programme of training activities within a framework of international cooperation. Participants should have an adequate working knowledge of English. Due to budget limitations, every effort should be made by candidates to secure either total or partial support for their expenses. However, limited funds are available for some participants who are nationals of, and working in, developing countries, and who are not more than 45 years old. Participants are required to take part in all aspects of this activity for its entire duration. There is no registration fee.

Workshop motivation:

The topic of Carbon cycle selected for the 2010 workshop is one of the important and relevant links to climate change, and it is the focal theme of this year's series. The concentration of CO₂ in the atmosphere has risen from close to 280 parts per million (ppm) in 1800, at first slowly and then progressively faster to a value of 367ppm in 1999, echoing the increasing pace of global agricultural and industrial development. This is known from numerous, well replicated measurements of the composition of air bubbles trapped in Antarctic ice. Atmospheric CO₂ concentrations have been measured directly with high precision since 1957; these measurements agree with ice-core measurements, and show a continuation of the increasing trend up to the present. Atmospheric CO₂ is, however, increasing only at about half the rate of fossil fuel emissions; the rest of the CO₂ emitted either dissolves in seawater and mixes into the deep ocean, or is taken up by terrestrial ecosystems. Uptake by terrestrial ecosystems is due to an excess of primary production (photosynthesis) over respiration and other oxidative processes (decomposition or combustion of organic material). Terrestrial systems are also an anthropogenic source of CO₂ when land-use changes (particularly deforestation) lead to loss of carbon from plants and soils. Nonetheless, the global balance in terrestrial systems is currently a net uptake of CO₂. For the past decade, the major focus of the research has been on the fate of carbon dioxide emitted to the atmosphere by fossil fuel burning and changes in land use. For the last few years, scientists have developed earth systems models to estimate the carbon cycle in the present environment and projection of future climates when higher concentration of atmospheric CO₂ will be encountered.

Workshop Sessions:

- . Earth history of climate change: Prof. Michael Bender - Professor of Geosciences, Princeton University
- . The present and future of greenhouse gases and climate forcing: Dr. Hiram Levy – Group head, Atmospheric Physics, Chemistry & Climate, Geophysical Fluid Dynamics Laboratory/NOAA
- . Characteristics of the new earth system model: Dr. Elena Shevliakova - Department of Ecology and Evolutionary Biology, Princeton University
- . The quality of climate prediction: Dr. Lisa Goddard - The International Research Institute for Climate and Society, Department of Earth and Environmental Sciences Columbia University

Western Pacific Geophysics Meeting *Taipei, Taiwan, 22-25 June, 2010*

This meeting provides an opportunity for interaction with geophysicists interested in studies in the western Pacific region. Abstracts on all related aspects of geophysical sciences are encouraged. Instructions for proposing a session are at:

<http://www.agu.org/meetings/wp10/>

A list of sessions already proposed are at:
<http://agu-wp10.abstractcentral.com/>

The WPGM is being organized in partnership with the following sponsoring Societies: American Geophysical Union; Chinese Society of Surveying Engineering; Chinese Geoscience Union; Chinese Geophysical Society; Geodetic Society of Japan; Geological Society – Taipei; Hong Kong Meteorological Society; Japanese French Oceanographic Society; Meteorological Society of ROC; Seismological Society of Japan; The Society of Space Science of ROC; and Taiwan Ocean Research Institute.
DEADLINE FOR ABSTRACTS: 25 February 2010.

42nd International Liege Colloquium on Ocean Dynamics Multiparametric observation and analysis of the Sea

Web site: <http://modb.oce.ulg.ac.be/colloquium/>

The colloquium will provide a forum to present and discuss recent scientific advances on the use of new sensors and platforms in all oceanographic disciplines. Of particular interest are multiparametric and interdisciplinary studies of the ocean, and the scientific questions being answered by means of the data collected through autonomous systems. Also advanced statistical methods to analyse multivariate data possibly in aggregated form from different sources are welcome. In this respect, the problems and solutions for constructing aggregated databases are also among the relevant topics covered by the colloquium.

For more than 40 years now, the International Liege Colloquium has been focusing on various aspects of ocean dynamics. The subject of the colloquium changes from

one year to the other but the topics are always approached in an interdisciplinary framework. The size of the group of participants (about 60 on average) and the careful selection of subjects, have always ensured fruitful exchanges and discussions. For years, selected papers of the colloquium have been published as a special issue on an international peer-reviewed journal.

International Symposium on Coastal Zones and Climate Change

Call for Papers for the International Symposium on Coastal Zones and Climate Change: Assessing the Impact and Developing Adaptation Strategies to be held on 12th - 13th April 2010 at Monash University, Gippsland, Churchill, Victoria, Australia. Please visit the website at:
<http://www.monash.edu.au/ceмо/czcc2010/>

CLIOTOP mid-term Workshop 'CLIOTOP into the future. Building scenarios for oceanic ecosystems in the 21st Century'
8-11 February 2010: Paris, France

The workshop will focus on defining the strategy to efficiently build scenarios for oceanic ecosystems evolution under anthropogenic and natural forcing in the XXI Century in support to International governance. Recognizing that oceanic ecosystems and associated artisanal and industrial fisheries have global drivers such as climate changes, global fish markets and international legal frameworks, one of the major goals of CLIOTOP during its second phase will be to establish formal partnerships with oceanic RFMOs (tuna commissions, whaling commission, ...) to provide them with useful science and products to help going toward an integrated ecosystem approach to oceanic fisheries at the global scale, taking example of the linkages between scientists and international policy makers that IPCC managed to put into effect for climate change.

For more information please see:
http://www.imber.info/jobs-announcements/CLIOTOP_midterm_workshop_announcement.pdf

OPPORTUNITIES AND POSITIONS

Science Officer, ESSP Office. Paris, France

Ca. Euros (€) 36,000 net per annum

The Earth System Science Partnership (ESSP, www.essp.org) was established in 2001 by four global environmental change (GEC) research programmes: (DIVERSITAS; www.diversitas-international.org), the International Geosphere- Biosphere Programme (IGBP; <http://igbp.net>), the International Human Dimensions Programme on Global Environmental Change (IHDP; www.ihdp.org), and the World Climate Research Programme (WCRP; <http://wcrp.wmo.int>). The ESSP facilitates the study of the Earth's environment as an integrated system in order to understand how and why it is changing, and to explore the implications of these changes for global and regional sustainability. More information about the ESSP can be obtained from www.essp.org.

The ESSP Science Officer will facilitate the advancement of the Partnership and the implementation of its activities under the guidance of the ESSP Scientific Committee (SC) and the ESSP Executive Officer; organise annual ESSP SC meetings and scientific workshops; manage the Coordination Office, located in Paris, France; interact with donor, policy and GEC-research communities; be responsible for communications and outreach; and undertake extensive international travel as a formal representative of the ESSP.

The successful candidate must have a graduate degree (PhD preferable) in the natural or the social sciences, with relevant international and interdisciplinary experience, excellent oral and written communication skills in English (a good working knowledge of French would be advantageous), and enthusiasm for coordinating international science partnerships. The post will be available in April 2010 for an initial period of two-years, with the possibility of an extension subject to funding

Applications should be submitted (in English) before 7 December 2009 to Martin Rice, ESSP Executive Of-

ficer, with a CV (resume) and contact information of three referees. Please note that we only accept electronic applications. We regret that it will not be possible to acknowledge applications and only the short-listed candidates will be contacted for an interview in mid-January.

Send Electronic Applications to:
Martin Rice, Executive Officer
Email: [mrice at essp.org](mailto:mrice@essp.org)

Faculty Positions SCRIPPS Institution of Oceanography, University Of California, San Diego

The Scripps Institution of Oceanography (SIO) at the University of California in San Diego (<http://scripps.ucsd.edu>) invites faculty applications (tenure track to tenured) to fill one or more positions in one or more of the fields listed below. We seek motivated, broad-thinking scientist-educators to establish vigorous research programs and provide intellectual leadership in their fields while complementing existing expertise at Scripps, other UCSD departments, and nearby institutions. SIO is a world renowned center of marine research with approximately 200 principal investigators leading research programs on all aspects of earth, ocean and atmospheric sciences.

Successful candidates will be expected to teach classes and supervise research at both the graduate and undergraduate level. The positions require a PhD degree and a competitive record of publication, as well as evidence of the ability to conduct and fund an active research program consistent with the opportunity to have done so at this career level.

Review of applications will begin on November 1, 2009, and will continue until positions are filled. Applicants should send a letter including descriptions of their teaching experience, research interests, a list of publications, immigration status, the position(s) for which they are applying and the names of three potential referees, along with their complete institution address, email address, phone and fax numbers to: Chair Search Committee, Department of the Scripps Institution of Oceanography, University of California, San Diego, 9500 Gilman Dr., La Jolla, CA 92093-0208 USA. Applicants should clearly indicate for which position(s) they are applying using the areas of interest as stated below. Questions about submission of applica-

tions may be addressed to Cristy Whitehead at 858-534-3205, (gradrecruit at sio.ucsd.edu). Salary will depend on the experience of the successful applicant and will be based on the UCSD pay scales.

Applicants are welcome to include in their cover letter a personal statement summarizing their contributions to diversity. UCSD is an Equal Opportunity Employer with a strong institutional commitment to excellence through diversity.

Biology Section: SIO invites applications to fill a faculty position (with preference at the rank of Assistant Professor) in Biochemistry, Genetics or Physiology with a major emphasis on the study of marine organisms, marine symbioses, or marine communities. Research areas of special interest include (but are not restricted to) protein biochemistry, biogeochemistry, chemical ecology, cellular physiology, and biomaterials. The successful candidate will have the opportunity to synergize with ongoing interdisciplinary research and education in natural products, microbiology, genomics and physiology at the Scripps Center for Marine Biotechnology and Biomedicine within the Biology section.

Ocean acidification. SIO invites applications at the Assistant, Associate or Full Professor level in the area of Ocean Acidification. Individuals with interests in the impacts of acidification on ocean life and ecology are encouraged to apply. The successful candidate will be interested in developing a multidisciplinary research program and coordinating with colleagues at Scripps and elsewhere, in addition to being committed to engaging students at both the undergraduate and graduate level.

Marine Population Dynamics: SIO invites applications at the Assistant, Associate, or Full Professor level for a position in Marine Population Dynamics for Fisheries and Protected Species. Research areas of special interest include population dynamics and stock assessment, management strategy evaluation, climate effects, and ecosystem and food web modeling. This key appointment builds upon a long record of accomplishment and collaboration between Scripps Institution of Oceanography and NOAA Fisheries Service. The successful candidate is expected to play a major role in training future practitioners in the science of population assessment and development of enhanced assessment methods that incorporate environmental variability, food web linkages and spatial heterogeneity.

Earth Section: SIO invites applications to fill a faculty position (with preference at the rank of Assistant Professor) in the sciences of the solid Earth. Areas of particular

interest include continental margins, seafloor structure and tectonics, sea-level and cryospheric changes, earthquakes and other natural hazards, theoretical and computational methods, and Earth and planetary history.

Candidates should have demonstrated research competence, the ability to develop new and innovative directions in research, and an interest in teaching. Interaction and collaboration with existing programs in the Earth Section at Scripps are welcome, as are research areas that would capitalize on our experimental marine and terrestrial seismic, electromagnetic, and geodetic capabilities. Members of the Earth Section do research in geology, geophysics, chemistry, biogeosciences, glaciology, and climate science (for more information see the Annual Report at:

http://sio.ucsd.edu/Research/Research_Units/Earth_Science/)

Oceans & Atmosphere Section: SIO invites applications to fill a faculty position (with preference at the rank of Assistant Professor) in Atmospheric Sciences, Physical Oceanography or Marine Engineering. The successful candidate should have the potential to become a scientific leader. Interest in establishing innovative research and education programs is a prerequisite. Interaction and collaboration with the many existing programs in Marine and Atmospheric Sciences at Scripps is encouraged. Specific areas of interest include the development of technology for observing the ocean, collection and analysis of data, ocean-state estimation and modeling, dynamical meteorology, coastal and near-shore processes, and the role of the ocean and atmosphere in past and present climate.

Florida State University - The Center for Ocean-Atmospheric Prediction Studies: Postdoctoral Research Fellowships

The Center for Ocean-Atmospheric Prediction Studies (COAPS) at the Florida State University (FSU) invites applications for three (3) postdoctoral positions in the area of:

a) Global ocean model evaluation. The successful candidate will set up a series of HYCOM global experiments of varying horizontal and vertical resolution that will allow for a detailed comparison with the experiments performed by the French Drakkar project (<http://www-meom.hmg.inpg.fr/Web/Projets/DRAKKAR>). The candidate will work closely with collaborators from the

French laboratory LEGI to evaluate the performance of the two global models and to interpret differences due to numerical choices. Experience with ocean models and familiarity with Fortran, UNIX, shell scripting, etc. is essential.

b) Ocean process modeling and theory. The successful candidate will work on idealized configuration of the South Atlantic to identify the controlling mechanisms of Agulhas rings formation, their subsequent pathways and influence on the Brazil current. A strong background in Geophysical Fluid Dynamics and familiarity with numerical models are essential.

c) Scientific analysis of phenomena in coupled ocean-atmospheric models and satellite data. The duties will include but not be limited to working with senior scientists to design studies of coupled ocean-atmosphere processes, including but not limited to tropical instability waves and assist training graduate and undergraduate students in analysis. Experience with atmospheric boundary-layer processes, model or satellite data processing and familiarity with Fortran, UNIX, shell scripting, etc. is essential.

Applications will be reviewed until the positions are filled. A Ph. D. in Physical Oceanography, Meteorology, or related field is required.

Curriculum vitae, a statement of research interests, and three letters of recommendation should be sent electronically to:
mmlaton at coaps.fsu.edu

The Florida State University is committed to a policy of non-discrimination for the university community on the basis of race, creed, color, sex, religion, national origin, age, disability, veteran's or marital status, or any other protected group status.

WHOI Staff Positions in Climate Research

WHOI announces a joint initiative in climate research amongst the Departments of Physical Oceanography, Marine Chemistry and Geochemistry, and Geology and Geophysics, and invites applications for tenure-track and tenured scientific staff positions. The goal of the multi-year initiative is to grow a strong interdisciplinary climate research program at WHOI.

It is anticipated that 6-12 climate scientists will be hired over the next 5 years, with the early appointees joining in

the shaping of the climate research program.

A successful candidate will complement or broaden existing institutional research strengths, in ocean circulation and processes, the ocean's role in climate and global water cycle, chemical oceanography, marine biogeochemistry, glaciology, paleoceanography, and paleoclimatology, will hold an appointment in the department most appropriate to his/her research, and will be expected to interact with members of other departments.

Possible research areas include, but are not limited to, observation and analysis of contemporary and paleo-climate variability and trends from

Ocean-Atmosphere-Cryosphere-Land datasets; climate observing systems utilization and/or development; biogeochemical cycles and climate; development and/or application of geochemical proxies within geological archives; coupled ocean/atmosphere processes in climate; climate dynamics; diagnosis of model outputs from climate simulations of past, present, or future climate and comparison to existing data sets.

Funding opportunities exist with the WHOI Ocean and Climate Change Institute (OCCI) to initiate and support interdisciplinary climate research projects. There are opportunities for participation in the MIT/WHOI Joint Program, and for broader climate research collaborations within WHOI (the Biology and the Applied Ocean Physics and Engineering Departments and the Marine Policy Center) and with the other two institutions of the Woods Hole Consortium, the Marine Biology Laboratory, and the Woods Hole Research Center.

Applicants should have a doctoral degree, postdoctoral experience and a publication record in a climate research area such as physical, paleo- or chemical oceanography, atmospheric or climate dynamics, or related fields.

Women and minority applicants are particularly encouraged, and WHOI is sensitive to the issues of dual career scientists and will work with applicants to address them.

Johns Hopkins University Faculty Position in Climate Research

The Department of Earth and Planetary Sciences invites applications for a tenure-track or tenured faculty appointment in the area of Climate Science, as part of the Department's initiative in Global Change Science. The successful candidate will continue the Department's ini-

tiative to develop an integrated, multidisciplinary research and teaching program on past, present, and future changes to Earth's Climate.

In the current search, the preference will be for applicants whose research focuses on the physics and/or dynamics of climate processes. As examples, we encourage applicants with interests in:

- Ocean and atmosphere dynamics;
- Numerical modeling of present and past climate and/or its primary components;
- Atmosphere–hydrosphere interactions;
- Atmospheric chemistry;
- Physics of clouds and aerosols; carbon cycling;
- Ocean biogeochemistry;
- Cryosphere processes.

For applicants whose research involves space-based experiments/instrumentation, strong consideration will be given to those having potential collaborations with the Johns Hopkins Applied Physics Laboratory. Opportunities also exist for collaboration with the Schools of Engineering, Medicine, and Public Health. Further information about the Department and other programs at Johns Hopkins may be found at: www.jhu.edu/eps/

Applicants should submit (pdf preferred) a CV including publication list; statements of research and teaching plan; and the names, addresses, and e mail addresses of at least three referees to Kristen Gaines (kgaines at jhu.edu), Department of Earth and Planetary Sciences, Johns Hopkins University, 3400 N Charles St, Baltimore, MD 21218, USA; Telephone 410-516-7034. ***Review of applications will begin December 15, 2009 and will continue until the position is filled.***

Johns Hopkins University is an Equal Opportunity, Affirmative Action employer; minorities, women, and individuals with disabilities are actively encouraged to apply.

Research Associate (Postdoctoral) or Faculty Research Assistant at Oregon State University

Project description: In the past decade, the climateprediction.net consortium based at Oxford University has produced and analyzed ensembles of huge numbers (many tens of thousands) of global-scale climate-change projections by developing software that allows users to contribute CPU time when they are not actively using their home or work desktop computers to make fragments of these many climate simulations. Currently the climateprediction.net group in collaboration with the Hadley Centre at the UK Met Office, is restructuring their software systems to allow similar ensembles of climate predictions to be made at higher resolution over the western US. The team has designed the outputs to ensure that the resulting ensemble of simulation outputs will be focused on societally relevant outcomes and variables. The team's primary contact and collaborator in the West has been Dr. Philip Mote with OCCRI, collaborating with Dr. Eric SalathÉ at Univ. of Washington. A public launch of the experiment is anticipated in late autumn 2009.

Qualifications: At the Postdoctoral level, a PhD in atmospheric or closely related physical science, or statistics; at the Faculty Research Assistant level, an M.S. or M.A. in one of these fields. Desired qualifications include significant experience in either analysis of large data sets or in numerical modeling, and good oral and written communications skills.

For more information on the position and on how to apply, see <http://www.coas.oregonstate.edu/index.cfm?content.display&pageID=752>



Oceans from Space, Venice 2010

Scuola Grande di San Giovanni Evangelista, Venezia (Italia)
26-30 April 2010

Every decade since 1980 there has been an international conference held in Venice, Italy, called *Oceans from Space*.

In 2010 it is once again called "Oceans from space". It will be held, April 26-30, 2010, in Venice.

See details on the website:

<http://oceansfromspace.jrc.ec.europa.eu/>

Call for nominations to PORSEC Governance positions

The Election Committee is now soliciting nominations for the President, Vice-President and new SOC members for the term of 4 years starting from 2012.

Nominations for the President and Vice-President candidates should be submitted to the Election Committee by no less than three SOC members (Article 7, PORSEC Statutes). **The deadline is 31 June 2010.** We will ask the nominees whether they accept the candidacy before presenting the final list of candidates to the SOC.

The voting will be held at the SOC meeting during the PORSEC 2010 in Keelung, Taiwan.

Nominations for the new SOC members should be submitted to the Election Committee by the present SOC members or any other member of the PORSEC Association (Article 6, PORSEC Statutes).

The deadline is 31 June 2010. Open positions for SOC memberships will be announced later.

I look forward to receiving your nominations.

Naoto Ebuchi

Chair of the Election Committee, PORSEC Association
ebuchi at lowtem.hokudai.ac.jp

PORSEC Database

For our database of the PORSEC Association members we would like you to enter your information directly into our web membership form, if you haven't already done so: <http://porsec.nwra.com/membershipform.php>

Please fill this form even if you have already given the information to us in any other format since we may not have all that information down correctly. **Please use this form to update your information whenever you have any changes.** It can also be used to pay your membership fee.

This form is also accessible through our main page (<http://porsec.nwra.com>) by clicking on "Join the PORSEC Association".

Please work on getting us more members; use the PORSEC home page and the above links for information. The prospective member provides us with the same information through the form. We will bill the person for the membership fee, which can now be paid via "Pay Pal" on the Internet.

Information

For information about the association and links to Newsletters from the president and Bulletin issues go to: <http://porsec.nwra.com/>. To join the PORSEC Association go to membership on the web site or contact one of us directly. The Bulletin of the PORSEC Association is edited by Gad Levy and Kristina B. Katsaros. Production Editor Susanne Öhrvik. **We welcome contributions about your work and about any activities of our PORSEC members that may be of interest to other members for future issues of the Bulletin.** To submit articles for this Bulletin of the PORSEC Association, please contact gad at porsec.nwra.com or katsaros at porsec.nwra.com.