

NEWSLETTER

In this issue:

1. *Message from the President*
2. *Editorial – SCOSTEP at UN COPUOS*
3. *Reports on Meetings*
4. *SCOSTEP News*
5. *Upcoming Events*
6. *General Information about SCOSTEP*

1. Message from the President



Dear colleagues,

I am pleased to contact you via this SCOSTEP Newsletter. SCOSTEP has achieved significant progress on a number of fronts.

VarSITI has completed one year and is progressing at a steady pace. The wind-down of CAWSES activities is marked by a few significant publications. Last year, a book carrying a set of refereed articles from the International Symposium on Solar Terrestrial Physics (ISSTP) organized by Professor Prasad Subramanian came out. The Nagoya Symposium on CAWSES II resulted in about forty papers submitted to Earth, Planets and Space. The papers have been processed by the editorial committee headed by Professors Mamoru Yamamoto and Takuji Nakamura and most of the papers are already online. Professor Toshitaka Tsuda has organized a special issue of Progress in Earth and Planetary Science (PEPS) consisting of review articles detailing the achievements of CAWSES II. These publications will serve as a permanent record of the achievements of CAWSES II.

The SCOSTEP Visiting Scholar (SVS) Programme has just been launched. After the issue of the first call, we received requests for additional laboratories to be included in the SVS program. After the current round of applications, we shall include more laboratories. The deadline for applications is May 31, 2015. Please encourage deserving students to make use of this opportunity.

One complete cycle of the SCOSTEP awards has been completed. SCOSTEP is grateful to the Awards Committee for a job well done: Professors Marvin Geller (USA, chair), Mark Lester (UK, deputy chair), Brian Fraser (Australia), Marius Potgieter (South Africa), and Zuo Xiao (China). We are in the process of forming the new awards committee.

One of the core missions of SCOSTEP is to cooperate and collaborate with all international organizations involved in solar terrestrial science. SCOSTEP has been collaborating with the International Space Weather Initiative (ISWI) over the years in running International Space Science Schools. ISWI promotes deployment of low cost space weather instruments and many from the SCOSTEP community participate in ISWI. In the recent UN/Japan workshop on ISWI (March 2-6, 2015), it was decided that data from ISWI instruments should be made available openly to the community as soon as possible. Speaking of data, SCOSTEP is collaborating with the World Data System (WDS) in promoting data sharing for VarSITI activities. A SCOSTEP-WDS workshop is planned for September this year. WDS is also an interdisciplinary body of ICSU, the International Council for Science. I recently had a lengthy discussion with Professor Len Fisk, the current President of COSPAR in furthering our collaborations in science and capacity building activities. We are hoping to see enhanced collaborative activities happen during the 41st COSPAR Scientific Assembly in Istanbul next year.

The IUGG General Assembly in Prague is around the corner. I hope to see you in Prague either in SCOSTEP business meetings and/or VarSITI related scientific sessions during the assembly.

Warm regards,

Nat Gopalswamy
SCOSTEP President

2. Editorial – SCOSTEP at UN COPUOS

SCOSTEP's President and Scientific Secretary attended the 52nd Session of the Scientific and Technical Subcommittee (STSC) of UN COPUOS (Committee on the Peaceful Use of Outer Space), held during 2-13 February, 2015 in Vienna, Austria. Two

technical presentations were given on **5 February, 2015** on “*Variability of the Sun and its Terrestrial Impact (VarSITI) – SCOSTEP Scientific Program 2014-2018*” by Dr. Nat Gopalswamy, and on “*SCOSTEP Capacity Building Activities that enhance space weather understanding*” by Prof. Marianna G. Shepherd. The presentations could be found at <http://www.unoosa.org/oosa/COPUOS/stsc/2015/presentations.htm> and http://www.yorku.ca/scostep/?page_id=46



Photo 1: President Dr. Nat Gopalswamy giving presentation at the 52nd Session of the STSC UN COPUOS



Photo 2: SCOSTEP's Scientific Secretary Dr. Marianna Shepherd, giving presentation at the 52nd Session of the STSC UN COPUOS

3. Reports on Meetings

3.1 School on Space Weather GNSS, 16-21 February, 2015, CRASTE-LT, Rabat, Morocco

The Space Weather GNSS Applications School was organized from 16-21 February 2014 in Rabat (Morocco), in partnership with CRASTE-LF, the International Space Weather Initiative (ISWI), the

UN, the ISESCO and Mohammed V University. The school took place at CRASTE-LF, African Regional Centre for Space Science and Technology, affiliated to UN, located in Rabat, Morocco <http://www.crastelf.org.ma>.

The main objectives of this school were: 1) the use of the data of the ISWI instruments by students of the Maghreb and African Countries, mainly GPS and magnetometers networks, and 2) the improvement of the level of expertise of the students from Maghreb and African Countries to enable them in participating and contributing to international projects. The school was dedicated to the development of skills:

- To use existing data sets and tools relating to terrestrial environment studies (less than 10% of the existing data are currently used);
- To use the results of studies based on environmental science and sustainable development and combining ground data with satellite data (example: geophysical studies, telecommunications, etc.). 37 young scientists and lecturers participated in the school.

After Christine Amory

3.2 Sun-Climate Connections conference – Kiel, 16-19 March 2015

Over 90 participants attended the Sun-Climate Connections (SCC) conference, which addressed recent advances in the understanding of the multiple connections between solar variability, and the Earth's climate. This meeting provided new insight into several issues, such as the impact of energetic electrons precipitating into the atmosphere, the role of the global electric circuit, and the modeling of the ozone response to solar variability. The programme included a panel discussion with members from the broader climate community. This discussion highlighted the role of multidisciplinary interactions, the need for better including the various solar forcings in climate system studies, but also the importance of having a framework for pursuing such studies on the longer term. One day was also devoted to outreach activities, including a public debate; a team of highly motivated young scientists took care of 70 high school students, debating with them the causes of global warming, discussing solar impacts, and showing auroras on a Planeterra aurora simulator.

Reported by Thierry Dudok de Wit



Photo 3: Group photo of the participants in the Sun-Climate Connections conference

3.3 International School of Equatorial and Low-Latitude Ionosphere, 16-20 March, 2015

The International School of Equatorial and Low-Latitude Ionosphere (ISELION) was held during March 16-20, 2015 at the Center of Research, Education and Training, National Institute of Public Administration, Jatiningor, Sumedang, Indonesia. ISELION was organized by the Indonesian Space Science Center, LAPAN and the Solar-Terrestrial Environment Laboratory (STEP) of Nagoya University, Japan. The International School was attended by 39 scientists from Indonesia (24), Malaysia (5), Vietnam (2), Philippines (2), India (2), Japan (1), Taiwan (1), Egypt (1), and Kazakhstan (1). Key note lectures were given on: 1) measurement techniques of the ionosphere, airglow and magnetic field measurements of the equatorial and low-latitude ionosphere and its dynamics (Kazuo Shiokawa, STEL, Japan); 2) radar measurements of the atmosphere and ionosphere and plasma irregularities in the equatorial ionosphere (Mamoru Yamamoto, RISH, Japan); 3) basic plasma physics associated with Equatorial Spread F (Ronald Tsunoda, CGS, SRI International, USA), and global modeling of thermosphere/ionosphere and space weather (Hidekatsu Jin, NICT, Japan).

The school was sponsored by LAPAN, Japan Society for the Promotion of Science (JSPS) core-to-core program B, STEL, Nagoya University, RISH (Research Institute for Sustainable Humanosphere, Kyoto University, and SCOSTEP.

Details on ISELION can be found at <http://iselion2015.sains.japan.go.id>



Photo 4: Prof. Thomas Djamaluddin, Chairman of LAPAN (middle) with ISELION's Chairs, Dr. Clara Y. Yatini and Dr. Kazuo Shiokawa,



Photo 5: Group photo of the participants in the ISELION conference.

Reported by MGS on behalf of Clara Y. Yatini

3.4 The 2nd Annual Conference of the Nigerian Geophysical Society, 17-20 March, 2015

The 2nd Annual Conference of the Nigerian Geophysical Society was held from March 17 to March 20, 2015 at Covenant University, Ota, Nigeria and was dedicated to exploring "The Role of Earth and its Atmosphere on our Technology". The conference was attended by 102 participants from 21 national universities and agencies and featured 24 oral

presentations. The conference was supported by the SCOSTEP Capacity Building Program, the National Space Research and Development Agency (NASDRA) and the Atmospheric and Space Environment Research Network (ASPERN).

4. SCOSTEP News

4.1 SCOSTEP Visiting Scholar Programme

In April 2015 SCOSTEP issued an AO (Announcement of Opportunity) for its new Visiting Scholar Programme (SVS). It invited applications to the SVS, a new capacity building activity of SCOSTEP, which complements the current scientific program, VarSITI (Variability of the Sun and its Terrestrial Impact) and SCOSTEP's public outreach activities. The objective of the SVS program is to provide training to young scientists and graduate students from developing countries in well-established solar terrestrial physics laboratories, for periods of between one and three months. SCOSTEP's aim is to fund four scholars each year, one related to each of the four SCOSTEP VarSITI themes (<http://www.varsiti.org/>). The training will help the young scientists to advance their career in solar terrestrial physics using the technique/skill they learned during the training. SCOSTEP will provide the airfare, while it is expected that the hosting lab will provide the living expenses (lodging, meals, ground transportation, visa fees and other incidentals). Trainees should have their own health insurance or arrange a provision with the host lab. At least four scholars each year will be granted, starting in 2015.

Please contact one of the SVS program listed below and work out the details of the visit. Once the applicant and the host agree on a visit, please prepare an application package including the following details of the visit: (i) work to be performed; (ii) dates of the visit and an estimate of the airfare in economy class; (iii) letter from the applicant's supervisor, and (iv) letter from the host scientist. The applications should be sent via email to: Dr. Marianna G. Shepherd (mshpherd@yorku.ca). All applications should be sent to the SCOSTEP Secretariat by not later than May 31, 2015. The applicant will be informed within three months after this date.

List of hosts includes:

Leibniz Institute of Atmospheric Physics (IAF), Germany. Contact: Dr. Franz-Josef Lübken – luebken@iap-kborn.de

The Solar-Terrestrial Environment Laboratory (STEL), Nagoya University, Japan. Contact: Dr. Kazuo Shiokawa – shiokawa@stelab.nagoya-u.ac.jp

National Institute of Polar Research (NiPR), Japan. Contact: Dr. Takuji Nakamura – nakamura.takuji@nipr.ac.jp

National Space Science Centre (NSSC), Chinese Academy of Sciences, China. Contact: Dr. Yihua Yan – yyh@nao.cas.cn

NASA Goddard Space Flight Center (GSFC), USA. Contacts: Dr. Antti Pulkkinen – antti.a.pulkkinen@nasa.gov,
Dr. Nat Gopalswamy – Nat.Gopalswamy@nasa.gov,
Dr. Seiji Yashiro – seiji.yashiro@nasa.gov

South African National Space Agency (SANSA), South Africa. Contact: Dr. Lee-Anne McKinnell – lmckinnell@sansa.org.za

4.2 New Awards Selection Committee

A new Awards Selection Committee has been appointed work for two years, selecting the second round of awardees (2015 and 2016).

Archana Bhattacharyya (India – Chair)
Vladimir Kuznetsov (Russia – Deputy Chair and Liaison to the Bureau)
Mark Miesch (USA)
Andras Ludmany (Hungary)
Marco Milla (Peru)

5. Upcoming Events

May 11 - : Jicamarca International Research Experience Program - JIREP 2015, 10 weeks, <http://jro.igp.gob.pe/jirep/>

May 18 – 22: URSI AT-RASC (Atlantic Radio Science Conference), Gran Canarias, Canary Island, <http://www.at-rasc.com/>

June 1 – 5 : 2015 African Geophysical Society Conference, Nairobi, Kenya, www.afgps.org/conference

June 1 – 5: Seventh Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere, Sunny Beach, Bulgaria, <http://ws-sozopol.stil.bas.bg/>

June 15 – 19: Geospace Environment Modeling (GEM) workshop, Snowmass, Co, USA
http://aten.igpp.ucla.edu/gemwiki/index.php/Main_Page

July 6 -17: Climate, Space Climate, and Couplings Between NCAR Advanced Study Program (ASP) Summer Colloquium, Boulder, CO, USA,
<http://www.asp.ucar.edu/colloquium/2015/>

June 16 – 19: 7th International Conference on Recent Advances in Space Technologies-RAST 2015“Emerging Private Space”, Istanbul, TURKEY, www.rast.org.tr

June 21: SCOSTEP Bureau meeting, Prague, Czech Republic

June 22 – July 2: 26th IUGG Assembly, Prague, Czech Republic, <http://www.iugg2015prague.com/>

June 26: SCOSTEP General Council Meeting, Prague, Czech Republic

June 22 –26: The 14th International Solar Wind Conference (SW14), Weihai, China,
<http://sw14.csp.escience.cn>

July 6 – 17: Climate, Space Climate, and Couplings Between, NCAR Advanced Study Program (ASP) Summer Colloquium, NCAR, Boulder, Colorado,
<http://www.asp.ucar.edu/colloquium/2015>

July 13 – 17: CISM Space Weather Summer School, NCAR, Boulder, Colorado, USA, Application Deadline: March 1, 2015,
<https://www2.hao.ucar.edu/Events/2015-CISM-Summer-School>

July 28 – August 4: Heliophysics Summer School 2015, “Seasons In Space: Cycles of variability of Sun-Planet systems”, Boulder, CO,
www.Heliophysics.ucar.edu

July 31 – August 6: 34th International Cosmic Ray Conference (ICRC), The Hague, The Netherlands,
<http://icrc2015.nl>

August 2 – 7: 12th Annual Meeting of the Asia Oceania Geosciences Society,
Singapore, <http://www.asiaoceania.org/aogs2015/public.asp?page=home.htm>

August 10 -13: 12th International Workshop on Layered Phenomena in the Mesopause Region (LPMR) 2015, Boulder, CO, USA,
<http://cires.colorado.edu/events/lpmr/>

September 6 – 11: Unsolved Problems in Magnetospheric Physics (UPMP) Workshop, Scarborough, UK, <http://spacescience.org/upmpw/>

September 14 - 18: The 17th biennial EISCAT Symposium and 42AM Optical Meeting will be held from 14-18 September 2015 in Hermanus, Western Cape, South Africa, <https://events.sansa.org.za/eiscat-42am-information>

September 15 – 17: 8th International Atmospheric Limb Conference, Gothenburg, Sweden,
<http://www.chalmers.se/en/conference/limb-workshop-2015/Pages/default.aspx>

September 28 – 30: SCOSTEP-WDS Workshop-“Global Data Activities for the Study of Solar-Terrestrial Variability”, Tokyo, Japan,
<http://isds.nict.go.jp/scostep-wds.2015.org/>

October 5 – 9: Coimbra Solar Physics Meeting (CSPM) “Ground-based Solar Observations in the Space Instrumentation Era”, Coimbra, Portugal,
<http://www.mat.uc.pt/~cspm2015/>

October 19 – 23: 14th International Symposium on Equatorial Aeronomy, Bahir Dar University, Bahir Dar, Ethiopia, <http://www.bdu.edu.et/isea14/>

October 26 – 30: International Study of Earth-affecting Solar Transients (ISEST/MiniMax24) Workshop, National Autonomous University, Mexico,
<http://cintli.geofisica.unam.mx/congreso/>

November 2 – 6: Solar Variability and its Heliospheric Effects, Athens, Greece, <http://bbc-sws.astro.noa.gr/>

November 9 – 13: 2nd Symposium of the Committee on Space Research (COSPAR): Water and Life in the Universe COSPAR 2015”, Foz do Iguacu, Brazil, <http://cosparbrazil2015.org/>

6. General Information about SCOSTEP

6.1 SCOSTEP Web Site

Information on SCOSTEP can be found at:

<http://www.yorku.ca/scostep/>

6.2 SCOSTEP Contact

The Scientific Secretary is the main point of contact for all matters concerning SCOSTEP.

Prof. Marianna G. Shepherd
Centre for Research in Earth and Space Science (CRESS)
York University
Petrie Sci. & Eng. Bldg
4700 Keele Street
Toronto, ON M3J 1P4
CANADA

Tel: +1 416 736 21 00 ext 33828

FAX: +1 416 736 5626

The Newsletter is prepared by SCOSTEP's Scientific Secretary with contributions from the SCOSTEP community and is issued quarterly. It can be found at http://www.yorku.ca/scostep/?page_id=135