

題名 [See] ISWI Newsletter – Vol. 4 No. 104
 差出人 maeda@serc.kyushu-u.ac.jp

```
*****
* ISWI Newsletter - Vol. 4 No. 104                                04 October 2012 *
*                                                                 *
*       I S W I = International Space Weather Initiative          *
*                   (www.iswi-secretariat.org)                    *
*                                                                 *
* Publisher:      Professor K. Yumoto, ICSWSE, Kyushu University, Japan *
* Editor-in-Chief: Mr. George Maeda, ICSWSE (maeda[at]serc.kyushu-u.ac.jp)*
* Archive location: www.iswi-secretariat.org (maintained by Bulgaria) *
*       [click on "Publication" tab, then on "Newsletter Archive"] *
* Caveat: Under the Ground Rules of ISWI, if you use any material from *
*       the ISWI Newsletter or Website, however minor it may seem *
*       to you, you must give proper credit to the original source. *
*****
```

Attachment(s):

- (1) "letgirgea49a", 137 KB pdf, 4 pages.
- (2) "Some_web_resources", 33 KB pdf, 2 pages.

```
-----
:                               Re:
:                               (1) Correction on the website of "Sun & Geosphere".
:                               (2) Message from the ISWI Secretariat.
:                               (3) IGRGEA LETTER from Dr Christine Amory-Mazaudier.
:                               (4) UN/Austria Symposium on Space Weather.
```

Dear ISWI Participant:

There are four items today:

------(1)

The website for "Sun & Geosphere" (journal) mentioned yesterday is not correct. The correct website is [www.sungeosphere.org]. However, their server is having some technical problems so if you cannot access it please wait a few days and then try again.

------(2)

The following message (between +++ and &&&) is from Dr J. Davila (a member of the ISWI Secretariat):

```
:                               +++
```

Hi All

There has been some confusion about the future of ISWI and I want to try to clear it up.

Some of you have received letters saying that the meeting in Quito is the last meeting of ISWI. This is not true. The ISWI was proposed as a 3-year agenda item for the Science and Technology Subcommittee of the Committee for the Peaceful Uses of Outer Space almost three years ago. This agenda item will end in February. However the ISWI will continue as a part of a new permanent agenda item called "Space Weather."

There has been a significant amount of progress during the last three years with new instrument deployments, new instrument arrays brought into ISWI, our yearly UN BSS meetings, and of course our series of Space Science Schools. I think you can all be proud of your accomplishments! We have obtained a steady stream of support for the activities of the Secretariat from NASA Headquarters, who strongly supports this program.

In the coming years we will (1) continue with the instrument deployment program, (2) continue to host and support Space Science schools for the training of new researchers in space science, and (3) work to increase the integration of ISWI data into the mainstream of space weather modeling and forecasting. In addition we will be helping to establish a few space weather modeling centers around the world through collaboration with NASA's Coordinated Community Modeling Center.

There remains much to do within ISWI for space weather, and I look forward to working with you all!

Joseph Davila, 3 October 2012.
Senior Scientist Heliophysics Division
Goddard Space Flight Center,
Code 670, Greenbelt, MD 20771 USA

: &&&

-----(3)

The first attached pdf is the latest IGRGEA LETTER from Dr Christine Amory-Mazaudier. Her letter comes out several times per year. Back issues are viewable at the ISWI website, www.iswi-secretariat.org. Christine is based in Paris, France.

-----(4)

The following message ((between ----- and =====) is from Mr. Lorant CZARAN (UN Vienna):

Dear ISWI participants,

The United Nations/Austria Symposium on Space Weather, (18 - 21 September 2012, in Graz, Austria) was successful. The four days of the conference were devoted to resources for remote access to data (as well as from groundbased or satellite measurements).

We allow ourselves to turn your attention to some of them (see attachment).

Program and reports/presentations can now be found at <http://www.iswi-secretariat.org/> (follow "Publications" -> "Presentations on this site").

Sincerely,
Lorant CZARAN (Mr.)
Programme Officer
UN Office for Outer Space Affairs (UNOOSA)
member of LOC of UN/Austria Symposium

Dimitar Danov
WEB-admin of <http://www.iswi-secretariat.org/>

=====

UN/Ecuador Workshop on ISWI is next week. The ISWI Newsletter will be closed during this period of time.

In the service of ISWI,
: George Maeda
: The Editor
: ISWI Newsletter



IGRGEA LETTER

International Geophysical Research Group /Europe-Africa
International Geophysical Research Group /Europe-Asia

IGRGEA

At the end of the IEEY, in 1995, IGRGEA (International Geophysical Research Group Europe Africa) has been organized to follow the research work initiated during IEEY (International Equatorial Electrojet Year), in 1992. Since January 2003 IGRGEA is developing at the Institute of Geophysics in Hanoi.

BURKINA FASO

Prof Frederic OUATTARA is back from a 7 month visit to NCAR. He has been working on modeling with Dr Art RICHMOND on the ionosphere in Equatorial Africa through TIEGCM. He was financed by a Fulbright contract.

Jean-Louis Zerbo spent two months (April 15 - June 15) at Lab. of Plasma Physics, with Dr Christine AMORY-MAZAUDIER, terminating his PhD work about »Solar activity, Solar wind and equatorial ionosphere". He will read his PhD in October at Ouagadougou, Burkina Faso. He was financed by the French Ministry of Foreign Affairs.

EGYPT

Three Egyptian PhD students are from September to November in French Laboratories. They are:

Amira SHIMEIS who works at LPP with Christine AMORY-MAZAUDIER on the equatorial fountain, Ibrahim FATHY who works at LPP on the variations of the Earth's magnetic field (magnetospheric convection and

Disturbed Dynamo) and Safinaz KHALED who works at LATMOS with Dr Luc DAME on CMEs.

They have been financed by the French Ministry of Foreign Affairs.

CÔTE D'IVOIRE

Prof. Vafi DOUMBIA is in Japan for a three-month research program at Nagoya University, with the Group of Prof. Kyio YUMOYO, on the variations of the equatorial electrojet in the Asian sector.

France

Dr Rolland FLEURY and Dr Patrick LASSUDRIE-DUCHESNE Duchesne are preparing at the National School for Telecommunications (Brest) a training school on GPS studies of the ionosphere, October 26 to 30, 2012. This school will teach a limited number (7) of candidates all in PhD studies, coming from Algeria, Morocco, the Congolese Republic, RDC and Senegal.

ALGERIA

Prof; Naima ZAOURAR, in charge of the Algerian ISWI is organizing a teaching session on Space Meteorology in Maghreb: Algeria, Mauritania, Morocco, and Tunisia. This School will be held from May 6 to 16 2013 at USTHB (Hari Boumedienne University of Science and Technology). The Program will be announced in the next letter.



NIGERIA

Prof Babatunde RABIU and Christine AMORY-MAZAUDIER will develop a program on Space Meteorology in Bells University (Nigeria). They will be helped by many research persons who have agreed to participate to the training of Nigerian PhD Students (Dr Art RICHMOND from NCAR/USA, Dr Dieter BILITZA from NASA/USA and Dr Giannina POLETTO from INAF/Italy).

VIETNAM/ USA

Hong Thi Thu PHAM spent a month at SCAR (March 21 to April 21) with Prof. Art RICHMOND on modeling the Asian Equatorial ionosphere using the TIEGCM Model. This work concerns her PhD results on: "Regular Magnetic field variations in Vietnam and ionospheric variations"

Hong is due to read her PhD on next October 15 at the UPMC Paris University. Her work is financed by the program PNST / CNRS.

MOROCCO

Contacts are being taken for installing GPS SCINDA (Ronald CATON) and MAGDAS magnetometers (Georg MAEDA) in Morocco. The Moroccan header for this program is Prof. Anas EMRAN from the Mohammed V. AGDAL University.

Following the school of last December in Morocco, two Moroccan students will prepare PhDs on the following subjects:

- Sun and High Energy particles
- Impacts of solar events on the ionized layers

RDC : Republic Democratic CONGO

Following the September 2011 School, a research program is being elaborated for training 8 PhD students in the following domains:

- *GPS - GNSS for ionospheric studies
- *Earth's magnetic field
- *Equatorial Electrojet
- * High Energy Solar Particles
- * Physical Geography: Forest dynamics
- * Sun and Space Weather
- * GPS for Geodesy
- *Atmospheric electricity

Christine AMORY-MAZAUDIER was in RDC from August 26 to September 1 for the organization of this project. In the next letter we will present the participants to this project.

Contacts have been taken between Prof. ZANA (Kinshasa University) and Georg MAEDA (SRC) for installing magnetometers in RDC.

RC : Republic CONGO

Bienvenue DINGA (GRSEN/ University Marien NBOUABI) spent two weeks at LPP from July 25 to August 9, 2012, to work with Dr Monique PETITIDIER. He presented his work on hydro meteorology and geo chemistry of the Congo River. He is finishing his PhD and several papers. He worked also on the use of SCINDA GPS data in RC.

RCA : Republic Centre AFRICA

Tiburce CONDOMAT from University of Bangui obtained a scholarship from the French embassy at Bangui to be train in Space Weather. He will be trained by Prof. Arsène KOBÉA from the University of Cocody, Abidjan/ Côte d'Ivoire.



NEXT MEETINGS

School ISWI-MAGDAS at Bandung in Indonesia from September 17 to September 26, 2012
ISWI conference at Quito/ Equator from October 8 to October 12, 2012
Chapman conference at Addis Ababa in Ethiopia from November 12 to November 16, 2012

SOME PUBLICATIONS

Nigeria 2010-2012

Adimula I.A., Rabiou, A.B., Yumoto, K., and the MAGDAS Group, 2011. Geomagnetic field variations from some equatorial electrojet stations. *Sun and Geosphere*, **6(2)**, 45 - 49

Bolaji, O. S., Rabiou, A. B., Adimula, I. A., Adeniyi, J. O., and Yumoto, K., 2010. Inter-hemispheric Trans-equatorial Field-aligned currents deduced from MAGDAS at equatorial zone. *Space Research Journal*, 1-10.

Bolaji, O.S., A.B. Rabiou, E.O. Oyeyemi and K. Yumoto, Climatology of the inter-hemispheric field aligned currents system over Nigeria ionosphere, *Journal of Atmospheric Research and Solar Terrestrial Phys.*, <http://dx.doi.org/10.1016/j.jastp.2007-07-08>.

Rabiou, A., B., K.Yumoto, E.O. Falayi, O.R.Bello, MAGDAS/CPMN Group, 2011. Ionosphere over Africa: Results from Geomagnetic Field Measurements During International Heliophysical Year IHY. *Sun and Geosphere*, **6(2)**, 63 - 66

Rabiou, A. B., Fayose, R.S., Oladosu, O.R., and Groves, K. 2011., Variation of total electron content and their effect on GNSS over Akure, Nigeria , *Proceedings of the 62nd International Astronautical Congress*, Cape Town, South Africa, 2011, IAC-11.B2.5.2

Rabiou, A.B., Adimula, I.A., Yumoto, K., Adeniyi, J.O., Maeda, G., 2009. Preliminary Results from the Magnetic Field Measurements Using MAGDAS at Ilorin, Nigeria. *Earth, Moon, and Planets*. DOI:10.1007/s11038-008-9290-7, **104**, 173-179

Girgea 2012

Burkina Faso, Egypt, France, Ivory-Coast, Sénégal, Vietnam

Amory-Mazaudier, C., 2012, La science au service du développement, Editions l'Harmattan, ISBN 978-2-296-56969-0.

Amory-Mazaudier, C., the International Research Group in Geophysics, Europa Africa : a laboratory without borders in the Earth Science and Environment, 2012 , 6, pp 454-459.

Ndeye Thiam, Frédéric Ouattara, Gnabahou Allain, Christine Amory Mazaudier, Rolland Fleury, Patrick Lassudrie Duchesne, 2012, Variation of F2 layer critical frequency with solar cycle at Dakar station, *Vol. 11 N°2, 16-20 J. Sci. (in French)*

Ouattara, F., A. Gnabahou, C. Amory-Mazaudier, 2012, Seasonal, diurnal and solar-cycle variations of electron density at two West Africa equatorial ionization anomaly stations, *International Journal of Geophysics.*, Volume 2012, Article ID 640463, doi: 10.1155/2012/640463.

Ouattara Frédéric, Christian Zoundi, Christine Amory Mazaudier, Rolland Fleury, Patrick Lassudrie Duchesne, 2012, Determination of TEC by using pseudo range at Koudougou station in Burkina Faso, *Vol 11, N°1, 12-19, J. Sci. (in French)*

Ouattara F. and Amory-Mazaudier, 2012, Statistical study of the Equatorial F2 layer at Ouagadougou during solar cycles 20, 21, 22 using Legrand's and Simon's classification of geomagnetic activity, to appear in *Space Weather and Space Climate*.



Pham Thi Thu, H., C. Amory-Mazaudier, M. Le Huy, 2012, Model of ionospheric conductivities, to appear *Journal of Sciences of the Earth (in Vietnamese)*.

Shimeis, A., I. Fathy, C. Amory-Mazaudier, R.Fleury ,A.M. Mahrous, K. Yumoto, K. Groves, 2012, Signature of the Coronal Hole on near the North Crest Equatorial Anomaly over Egypt during the strong Geomagnetic Storm 5th April 2010, *J. Geophys. Res.*, doi:10.1029/2011JA017350, in press

Zerbo, J-L., C. Amory-Mazaudier, F. Ouattara, 2012, Solar wind and geomagnetism: Toward a standard classification of geomagnetic activity from 1868 to 2009, *Ann. Geophysicae*, 30, 421-426.

Zerbo, J-L., C. Amory-Mazaudier, F. Ouattara, Geomagnetism during solar cycle 23: Characteristics, 2012, to appear in *Journal of Advanced Research*.

Zoundi C., Ouattara F., Fleury R., Amory-Mazaudier C., Lassudrie Duchesne P, **Seasonal** TEC variability in West Africa equatorial anomaly region, *European Journal of Scientific Research*, Vol 77, n°3, pp309-319.

**Some web-resources,
reported at UN/Austria Symposium on Space Weather,
18 - 21 September 2012, in Graz, Austria**

Web-sites you should visit.

ESA - Space Situational Awareness Space Weather - SWE.

This is a Web-portal developed by ESA.

Aims:

"SWE services will centre around the SWE Data Centre at ESA's Redu station and a new SWE Service Coordination Centre (SSCC), located in Belgium at a location to be defined during the SSA Preparatory Programme.

ESCs will act as focal points within the SWE architecture for expertise, data and products in that area from across Europe."

<http://swe.ssa.esa.int/>

KANZELHÖHE OBSERVATORY for Solar and Environmental Research

http://www.solobskh.ac.at/index_en.php

includes <http://www.solarmonitor.org/>

Solar Influences Data Analysis Center (SIDC)

The SIDC includes the World Data Center for the sunspot index and the ISES Regional Warning Center Brussels for space weather forecasting

<http://www.sidc.be/>

SIDC Data Products and Services

3-day Forecast of Solar and Geomagnetic Activity: Latest Issue and Archive

<http://sidc.oma.be/ssa/>

Analysis Center-Space Weather (in Russian)

Provides information about the current state of near space: Sun and Magnetosphere

<http://swx.sinp.msu.ru/>

NOAA Space Weather Alerts from SWPC

<http://www.swpc.noaa.gov/alerts/index.html>

ISESE Regional Warning Centres

(there are fourteen Regional Warning Centres distributed around the globe)

<http://www.ises->

[spaceweather.org/ISES.php?target=Regional_Warning_Centers&id=p4&include=Regional_Warning_Centers&title=Regional+Warning+Centres](http://www.ises-spaceweather.org/ISES.php?target=Regional_Warning_Centers&id=p4&include=Regional_Warning_Centers&title=Regional+Warning+Centres)

Web services

AVIDOS - a code for radiation dose assessment of aircraft crew exposure due to cosmic radiation at flight altitudes.

WEB address: <http://avidos.ait.ac.at/avidos.asp>

The access through web browser

Provider: AIT Austrian Institute of Technology GmbH, 2010. All rights reserved

Description: FREE

- o Calculate the resulting radiation dose in flight.
- o Calculate the resulting radiation dose during flight.
- o You can select

- 1. the date of the flight;

- 2. Airport of departure and the airport of arrival;

Special requirements: You must have installed JAVA plug-in.

Languages: English, German, French, Italian, Spanish, Russian

KHO Auroral forecast service

WEB address: <http://kho.unis.no/Forecast.htm>

The access through web browser

Provider: Kjell Henriksen Observatory (KHO) in Svalbard, Norway

Description: FREE

Two images are updated every 15 minutes. Left image show the size and location of the impact zone of energetic particles from the Sun, i.e. a green circular belt of auroral emissions around each geomagnetic pole. These belts are known as the auroral ovals. Right image shows the local all-sky view of the oval. Sun, moon and satellite or star positions are also included. 5 auroral stations are included in the above animation.

Tools that run on your computer.

SWB Solar Weather Browser

WEB address: <http://www.sidc.be/swb/>

Run on your computer

Provider: Royal Observatory of Belgium

Description: FREE

The Solar Weather Browser (SWB) is a software tool developed by the Royal Observatory of Belgium for easy visualisation of solar images in combination with any context information that can be overlaid on the images and that is space weather relevant. In Fig. 1, two examples are shown of two interactively chosen combinations of data. On the left, a combination of an EIT/19.5 nm image with an overlay of CME detections by CACTus. On the right, a combination of an EIT/17.1 nm image with a 14 degrees grid and NOAA active region numbers.

Requirements: Guidelines are on the site above.

Run on Windows 2000/XP or later, Apple Mac OS X 10.6 or later (Intel), Linux ??

Languages: English

KHO Auroral forecast service (for PC)

WEB address: <http://kho.unis.no/Forecast.htm> (click on Software)

Run on your computer

Provider: UNIS - The University Centre in Svalbard, Norway

Description: FREE

Real time animation of the Aurora oval (Satellites and more) mapped onto the Earth's surface is created. The night and dayside are visualized together with the location of the twilight zone as Earth rotates under the aurora oval.

Requirements: Windows XP or later

Languages: English

KHO Auroral forecast service (for mobile)

WEB address:

http://www.unis.no/60_NEWS/6080_Archive_2012/n_12_08_20_auroral_forecast/goes_public_news_20082012.htm

Run on your mobile phone

Provider: UNIS - The University Centre in Svalbard, Norway

Description: FREE

The program forecasts up to +1 hour in time the size and location of the auroral ovals. It includes local weather, solar illumination and star charts from 7 well known auroral observatories.

Languages: English
