



UNITED NATIONS  
Office for Outer Space Affairs

## INFORMATION NOTE

### United Nations/Ecuador Workshop on the International Space Weather Initiative

Hosted by

**Quito Astronomical Observatory of the National Polytechnic School of the Republic of Ecuador  
on behalf of the Government of the Republic of Ecuador**

represented by

**National Secretariat of Higher Education, Science, Technology and Innovation**

Co-organised and/or co-sponsored by

**United Nations Office for Outer Space Affairs (UNOOSA)**

**National Aeronautics and Space Administration (NASA), United States of America**

**Japan Aerospace Exploration Agency (JAXA), Japan**

**International Centre for Space Weather Science and Education, Kyushu University, Japan**

**International Committee on Global Navigation Satellite Systems (ICG)**

**International Astronomical Union (IAU)**

**Committee on Space Research (COSPAR)**

**Scientific Committee on Solar Terrestrial Physics (SCOSTEP)**

**Quito, Republic of Ecuador**

**8 – 12 October 2012**

#### 1. Introduction

A five-day **Workshop on the International Space Weather Initiative (ISWI), Quito, Republic of Ecuador, 8 - 12 October 2012**, is being organized by the **United Nations Office for Outer Space Affairs (UNOOSA)** in cooperation with the **Quito Astronomical Observatory of the National Polytechnic School of the Republic of Ecuador, on behalf of the Government of the Republic of Ecuador** represented by the **National Secretariat of Higher Education, Science, Technology and Innovation**, and the **National Aeronautics and Space Administration (NASA), United States of America**, the **Japan Aerospace Exploration Agency (JAXA), Japan**, **International Centre for Space Weather Science and Education of Kyushu University, Japan**, and the **International Committee on Global Navigation Satellite Systems (ICG)**, as part of the activities of the **United Nations Programme on Space Applications**, for the benefit of the countries in Latin America and the Caribbean. The Workshop will be hosted by **the Quito Astronomical Observatory on behalf of the Government of Ecuador**.

The purpose of the Workshop is to report new scientific insights into universal processes in the solar system that affect space weather and the terrestrial environment aimed at understanding the impacts of space weather on Earth and the near-Earth environment. Preference will be given to studies of space weather phenomena that are based on analyzing data and processing images that were recorded by ISWI instrument arrays. The workshop will provide a unique opportunity for potential instrument providers and operators to engage collaborators from specific geographical locations to broaden the coverage of existing instrument arrays, and to provide scientific background

needed for modeling the physical processes. The Workshop is being organized to focus on space weather science.

## **2. Background**

Initiated in 1990, the United Nations Basic Space Science Initiative (UNBSSI) has contributed to international and regional development of astronomy and space science through annual workshops organized under the umbrella of the United Nations, focusing specifically on the International Heliophysical Year 2007 (IHY2007, 2005-2009) and the International Space Weather Initiative (ISWI, 2010-2012). UNBSSI has led to the establishment of planetariums, astronomical telescope facilities, and IHY/ISWI instrument arrays worldwide, particularly in developing nations. The Workshop is the 20<sup>th</sup> workshop in the UNBSSI and will also deliberate on a number of follow-ups to UNBSSI of regional and international standing achieved in the past 20 years.

ISWI (2010-2012) was envisioned to continue the tradition of IHY (2005-2009) in the worldwide deployment of space weather instrument arrays. To date, ISWI contributes to the observation of space weather through 18 instrument arrays with close to 1000 operating instruments in more than 100 nations supported by designated national ISWI coordinators.

The first workshop on ISWI was held in Helwan, Egypt, and hosted by the Helwan University on behalf of the Government of Egypt, Egypt, in 2010, particularly for the benefit of nations in Western Asia (UN GA document A/AC.105/994). In 2011 the United Nations/Nigeria Workshop on ISWI was hosted by the Center for Basic Space Science of the National Space Research and Development Agency on behalf of the Government of the Federal Republic of Nigeria, particularly for the benefit of nations in Africa (UN GA document A/AC.105/1018). The third ISWI workshop is held in Ecuador in 2012, specifically for the benefit of the region of Latin America and the Caribbean.

## **3. Programme Topics of the Workshop**

Papers for oral presentation or poster display are invited in disciplines related to space weather studies.

- Heliosphere and Cosmic Rays
- Multi-wavelength Observations of the Sun
- Ionosphere, Thermosphere and Mesosphere
- Very-Low Frequency (VLF) studies of Sun-Earth Connection
- Climate Studies
- Data Analysis and Image Processing Methods
- Atmospheric Physics
- Space Weather Modelling
- Space Weather Effects on Global Navigation Satellite Systems (GNSS)
- UNBSSI Follow-up Projects in Astronomy

## **4. Call for Papers and Application to Participate in the Workshop**

A workshop website has been made available, where prospective workshop participants can access information on the scientific programme, registration, and applications for travel support. Limited travel support will be available for participants from developing nations, including support for round-trip air travel and room/board for the duration of the workshop. Individuals who will be selected to be sponsored to participate in the workshop will be notified by the International Scientific Organizing Committee of the Workshop.

The workshop website can be accessed at: <http://oaq.epn.edu.ec/iswi/>

Online application for the Workshop is also available. We encourage all candidates to apply for the Workshop online, as it helps to streamline the processing of applications. The online application form can be accessed on the following URL: <http://www.unoosa.org/oosa/en/SAP/act2012/iswi/index.html>

Abstracts of papers of no more than 600 words must be headed by the following details:

- (i) Paper Title
- (ii) Author(s) Name(s)
- (iii) Institutional Affiliation(s)
- (iv) Email Address(es)

Abstracts must be submitted BOTH through the online submission (application) form at <http://www.unoosa.org/oosa/en/SAP/act2012/iswi/index.html> and in electronic format to **Ms. Ayoni Oyenevin, United Nations Office for Outer Space Affairs**, at [Ayoni.Oyenevin@unvienna.org](mailto:Ayoni.Oyenevin@unvienna.org), and to the Workshop Secretariat, at [observatorio.astronomico@epn.edu.ec](mailto:observatorio.astronomico@epn.edu.ec)

Authors should state clearly for which programme topic the paper is intended to be presented orally or by poster. Contributions that highlight interdisciplinary issues and utilize data from the current arrays of ISWI instruments are particularly encouraged.

Poster sessions will be organized for the duration of the Workshop.

## 5. Key Dates for the Workshop

- Registration deadline: **30 June 2012**
- Abstract submission deadline: **30 June 2012**
- Application for travel support deadline: **30 June 2012**
- Notification for financial support: **1 August 2012**
- Workshop: **8-12 October 2012**

## 6. Venue of the Workshop

The workshop will be held at **Hotel Quito in the capital city Quito, Ecuador**. All workshop participants will receive an information package with details on travel, lodging, and local arrangements.

## 7. Language of the Workshop

**English** will be the working language of the Workshop.

## 8. Information on the Workshop

Updated information about the workshop can be obtained at: <http://oaq.epn.edu.ec/iswi/>

## 9. Financial Arrangements

Within the limited funds available to the Workshop co-sponsors, a number of selected participants from developing nations and nations with economies in transition, who are ISWI instrument providers or operators, will be offered financial support to attend the Workshop. Funded participants will be provided with a round-trip air ticket between their international airport of departure in their home country to Quito, Ecuador, and daily subsistence allowance.

Workshop participants, who need assistance for their hotel accommodation in Quito, Ecuador, may contact the Local Organizing Committee (LOC).

## 10. Contact of the Workshop Secretariat

The Quito Astronomical Observatory

Address: Interior del Parque La Alameda  
Av. Gran Colombia s/n  
Postal Box: 17-01-165  
Quito, Ecuador

Telephone: +593-2-2570765/+593-96521134  
E-mail: [observatorio.astronomico@epn.edu.ec](mailto:observatorio.astronomico@epn.edu.ec)  
Web: <http://oaq.epn.edu.ec/iswi/>  
<http://oaq.epn.edu.ec>

## 11. Visa Applications

Participants in need of an invitation letter to support their VISA application, shall contact the Workshop Secretariat at the following address:

Email: [observatorio.astronomico@epn.edu.ec](mailto:observatorio.astronomico@epn.edu.ec)

The following information is needed to issue an invitation letter:

- Full Name as shown in the Passport
- Passport Number
- Nationality
- Name of Home Institution
- Job Title
- Postal Address
- Telephone Number
- Gender
- Date of Birth
- Travel Plan (arrival and departure date, flight information)

The above information is also required for accompanying person(s), if any.

The Local Organizing Committee will provide an official invitation letter by mail.

While no foreigner requires a visa to enter Ecuador for a period of 90 days for tourism purposes, they must obtain from the Ecuadorian Embassies or Consulates a VISA to stay in the country for a longer period after fulfilling the requirements established by law. Citizens of Afghanistan, Bangladesh, China, Eritrea, Ethiopia, Kenya, Nepal, Nigeria, Pakistan, and Somalia require a visa to enter Ecuador. Applications for a VISA have to be made at the local Ecuadorian Embassy/Consulate/Visa Office. Please, verify in your country if you need a Visa to enter Ecuador.

## 12. Life and Health Insurance

Life/major health insurance for each of the selected participants is necessary and **is the responsibility of the candidate or his/her institution or Government**. The co-sponsors will not assume any responsibility for life and major health insurance, nor for expenses related to medical treatment or accidents.

## 13. Organizing Committee

### **International Scientific Organizing Committee (ISOC):**

Amory-Mazuaudier, C., France  
Chilingarian, A., Armenia  
Davila, J., United States of America

Gadimova, S., United Nations [Co-Chair]  
Georgieva, K., Bulgaria  
Gopalswamy, N., United States of America [Co-Chair]  
Hayakawa, H., Japan  
Lopez, E., Ecuador [Co-Chair]  
Mahrous, A., Egypt  
Okeke P. N., Nigeria  
Rabiu, A.B., Nigeria  
Raulin, J.-P., Brazil  
Shibata, K., Japan  
Yumoto, K., Japan

### **Local Organizing Committee (LOC)**

Lopez, E. [Chair]  
Haubold, H.J., Germany  
Ishitsuka J., Perú  
Lasso O.  
Valencia C.  
Vasconez C. [Co-Chair]  
Vasquez N. [Co-Chair]  
Semanate J.  
Vicente K.  
Vinueza A.