



Elements for Drafting the Workshop Report

United Nations/Japan Workshop on Space Weather
“Science and Data Products from ISWI Instruments”

Fukuoka, Japan, 2-6 March 2015

United Nations General Assembly Report

United Nations A/AC.105/1051

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**Committee on the Peaceful
Uses of Outer Space**

**Report on the United Nations/Austria Symposium on Space
Weather Data, Instruments and Models: Looking Beyond
the International Space Weather Initiative**
(Graz, Austria, 16-18 September 2013)

I. Introduction

1. The Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), through its resolution entitled "The Space Millennium: Vienna Declaration on Space and Human Development", recommended that activities of the United Nations Programme on Space Applications should promote collaborative participation among Member States, at both the regional and international levels, in a variety of space science and technology activities, by emphasizing the development and transfer of knowledge and skills to developing countries and countries with economies in transition.¹

2. At its fifty-fifth session, in 2012, the Committee on the Peaceful Uses of Outer Space endorsed the programme of workshops, training courses, symposiums and expert meetings related to the socioeconomic benefits of space activities, small satellites, basic space technology, human space technology, space weather and global navigation satellite systems (GNSS) to be held in 2013.² Subsequently, the General Assembly, in its resolution 67/113, endorsed the report of the Committee on the work of its fifty-fifth session.

3. Pursuant to General Assembly resolution 67/113 and in accordance with the recommendations of UNISPACE III, the United Nations/Austria Symposium on

¹ Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 18-30 July 1999 (United Nations publication, Sales No. E.90.1.3), chap. I, resolution I, sect. I, para. 1 (a)(ii), and chap. II, para. 409 (d)(3).
² Official Records of the General Assembly, Fifty-seventh Session, Supplement No. 20 (A/67/20), para. 39.

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 Please recycle 

- Report reflects discussions, observations and recommendations made by Workshop participants
- Prepared by UNOOSA
- Officially edited and translated into the six official UN languages
- Submitted to UN Member States through UNCOPUOS and UN General Assembly
- Past reports see OOSA website

Past ISWI Workshop Reports

- Retrieve UN documents from <http://documents.un.org>
 - Select “Simple Search”
 - Enter Symbol number (e.g. A/AC.105/1052)
 - Most documents available in six official UN languages
- Past reports of ISWI Workshops:
 - UN/NASA/JAXA Workshop on the International Space Weather Initiative (ISWI), Helwan, Egypt, 2010 (A/AC.105/994)
 - UN/Nigeria Workshop on the International Space Weather Initiative (ISWI), Abuja, Nigeria, 2011 (A/AC.105/1018)
 - UN/Ecuador Workshop on the International Space Weather Initiative (ISWI), Quito, 2012, (A/AC.105/1030)
 - UN/Austria Symposium on Space Weather Data, Instruments and Models: Looking Beyond the International Space Weather Initiative (ISWI), Graz, Austria, 2013, (A/AC.105/1051)

Sources for Drafting the Workshop Report

- Presentations made at the Workshop
- Discussions, Q&A during the Workshop sessions
- Panel discussions
- Reports and input received from Chairpersons/
Rapporteurs
- Notes taken by UNOOSA
- Input received from individual participants
- Discussions in the present session

Workshop Report Structure

1. Introduction

A. Background and Objectives

- Mandate and Workshop background
- Background information on the importance of space weather and ISWI

B. Attendance

- Countries and organizations represented

C. Programme

- Components of the Workshop Programme
 - Thematic Sessions, Hands-on Training
 - Panel Discussions
 - Poster Session

Workshop Report Structure – cont'd

2. Summary of the Workshop Programme

A. Opening Session and Keynotes

B. Technical Sessions

Session 1: Space Weather Instrumentation

Session 2: Solar Weather/National Activities

Session 3: Weak Solar Activity

Session 4: Coupling Processes

Session 5: Magnetosphere, Ionosphere and Atmosphere

Session 6: Space Weather Impact and Awareness

Session 7: Sun to Earth Space Weather Modelling

Session 8: Hands-On Workshop organized by ICSWSE

Session 9: Observations, Recommendations and the Way Forward

C. Panel Discussions

Workshop Report Structure – cont'd

3. Observations and Recommendations
4. Conclusions

ISWI General Issues

- **Note** and recall the decision taken in Quito (Quito Declaration) that ISWI should be continued and linked to the discussion in COPUOS under the agenda item on space weather
- **Note** the candidate Guidelines developed by Expert Group C (Space Weather) under the COPUOS agenda item on the long term sustainability of outer space activities (A/AC.105/C.1/2014/CRP.15)
- **Note** the establishment of the COPUOS Space Weather Expert Group
- **Note** the importance of the ISWI Newsletter & ISWI Secretariat Website

Panel 1 – Instrument Network & Future of ISWI

- **Note** that the focus of ISWI is on science, capacity building and outreach
- **Note** the progress achieved by ISWI in different regions of the World (Africa, Asia, Latin America) and the cooperation with SCOSTEP
- **Note** the addition of three new instrument arrays bringing the total number of instrument arrays to 17
- **Note** that the ISWI Secretariat has been expanded to include a workshop coordinator and that the US has committed additional resources to make ISWI data available to all scientists
- **Note** the need to review the status of ISWI instruments (see *A/AC.105/2013/CRP.11*) and the status of ISWI national points of contacts

Panel 1 – Instrument Network & Future of ISWI

- **Note** the need for actions to bridge the gap between ISWI science and potential operational use of ISWI data (from data collection to data analysis and modelling), based on a stepwise approach
- **Note** the need to address ISWI data sharing issues
- **Recommend** that the ISWI Steering Committee addresses data sharing issues as a priority and reports the progress during the next Steering Committee Meeting
- **Recommend** that the ISWI Steering Committee solicits annual reports from member countries and instrument PIs and publishes them in the ISWI newsletter
- **Recommend** that the ISWI Steering Committee considers preparing an action plan outlining goals, schedule and implementation of future ISWI activities

Panel 2 – International Cooperation

- **Note** the existing framework(s) for international cooperation in space weather activities:
 - COPUOS
 - COSPAR
 - ICAO
 - ILWS
 - ISES
 - ISWI
 - SCOSTEP
 - ICSU/WDS (World Data System)
 - WMO
- **Note** the need for coordination among those entities

Panel 2 – International Cooperation

- **Note** the following international collaboration needs:
 - Enhanced data availability and quality of data for services;
 - Development of service activities connected with data and research;
 - Space weather observation architecture to maintain complete and continuous observations;
 - Outreach and education;
 - Risk analysis and assessment of user needs;
 - Improved communication with policy makers;
 - On-going capacity building events to enable more countries to be involved in research and services.
- **Note** that an action group would be useful to organize the effort and to assess what is being done well today and where the major gaps are
- **Note** that these activities should be accomplished in a manner that establishes synergy among all the participating countries and organizations and avoids duplication

Panel 3 – Data Utilization and Operational Use

- **Note** that to make ISWI effective, ISWI data must be accessible, available and independently usable
- **Note** the importance of the availability of real time data for operational use in line with established user requirements
- **Note** the VxO and SPEDAS
- **Recommend** to establish an open data policy for ISWI (Accessibility)
- **Recommend** policy for making data available and for archiving data (e.g. by submitting ISWI data to VxO and SPEDAS, and to existing data archives) (Availability)
- **Recommend** that ISWI instrument PIs calibrate and document their data (Usability)
- **Recommend** that the ISWI Steering Committee shall be tasked with drafting relevant guidelines and policies (e.g. on the basis of WMO Resolution 40, NASA Heliophysics data policy)

Other Matters & Next Steps

- **Note** the successful conclusion of the present Workshop and express appreciation to ICSWSE and the government of Japan for hosting the Workshop
- **Note** that the COSPAR/ILWS roadmap symposium to be held on the margins of COPUOS STSC in Vienna in February 2016
- **Note** that the ISWI Steering Committee will also meet on the margins of the COPUOS STSC in Vienna in February 2016
- **Note** ISWI school to be held near Mumbai, India in November 2016
- **Note** the interest to organize future ISWI Workshops in the following countries:
 - 2017: United States
 - TBD: Brazil, Mauritius

UN/Japan Workshop Updates



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Update (3 March 2015):

- [Update: Reference Materials \(Documents: Expert Group C on Space Weather under the COPUOS agenda item on Long-term Sustainability of Outer Space Activities, COPUOS Space Weather Expert Group\) \(3 March 2015\)](#)
- [Twitter: #UNJapanworkshop \(3 March 2015\)](#)
- [Twitter: #UNOOSA \(3 March 2015\)](#)
- [Press Release UN/Japan Workshop on Space Weather \(2 March 2015\)](#)
- [Messages from the Local Organizers \(LOC\)](#)
- [Final Workshop Programme \(updated 24 February 2015\)](#)
- [Programme Committees](#)
- [Information for chairpersons, speakers and poster presenters \(updated 20 February 2015\)](#)
- [Programme Committees](#)

See <http://www.unoosa.org/oosa/en/SAP/act2015/japan/index.html>

Thank you for your attention!

The United Nations logo, featuring a world map surrounded by olive branches, is centered in the background of the slide.

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