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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Forty-seventh session
8-19 February 2010

Reports on national and regional activities related to the International Space Weather Initiative

I. Note by the Secretariat

1. In its resolution 64/86 of 10 December 2009, the General Assembly endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Scientific and Technical Subcommittee, at its forty-seventh session, include a new agenda item entitled "International Space Weather Initiative", in accordance with the three-year workplan adopted by the Subcommittee at its forty-sixth session (A/AC.105/933, annex I, para. 16).

2. At its forty-sixth session, the Scientific and Technical Subcommittee agreed that it was important to continue to explore the solar corona; to deepen the understanding of the function of the Sun and the effects that variability of the Sun could have on the Earth's magnetosphere, environment and climate; to explore the ionized environments of planets; and to determine the limits of the heliosphere and to deepen the understanding of its interaction with interstellar space (A/AC.105/933, para. 167).

3. According to the three-year workplan, the Subcommittee would consider reports by interested Member States, scientific organizations and the International Space Weather Initiative secretariat on regional and international plans to implement the Initiative. The Subcommittee would encourage both the continued operation of existing instrument arrays and new instrument deployments.

4. By January 2010 the Secretariat received replies from Armenia, Germany, Myanmar, Spain and the United States of America, as well as from the Committee on Space Research (COSPAR) and the World Meteorological Organization (WMO). The replies were represented in document A/AC.105/967 and Addendum.

5. The present document contains a reply from Japan which was received by the Secretariat in February 2010. The reply will be represented in Addendum 2 to document A/AC.105/967.

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II. Reply from Japan

A. Role of the International Space Weather Initiative (ISWI)

1. In order to raise the general level of space science and support space education in developing nations, one of the best methods is to introduce these nations to "ground-based observation". This introduction can be achieved by getting developed nations to contribute instrumentation to developing nations. Then, local engineers and scientists can be instructed in equipment maintenance, data acquisition and data analysis so that they become responsible for the long-term operation of such facilities. In this way, both the equipment provider and the equipment maintainer benefit because both can make use of the resulting scientific data.

2. To summarize these functions, a principle investigator (PI) funded by his/her country provides instrumentation and assists with data distribution from that instrumentation. In return, a host country provides the workforce, facilities, and operational support (typically at a university inside the host country). Host scientists become part of the science team. All data and data analysis activity is shared. In addition, international meetings are organized so that all parties can meet face-to-face to discuss progress and problems. At these meetings, student exchanges, ideas for publications, outreach activities, and so on, can be organized.

B. Contibution of Japan to ISWI

3. In Japan, the STPP (Solar Terrestrial Physics Program) subcommittee of the *Science Council in Japan* is participating in ISWI as a follow-on program of the International Heliophysical Year (IHY, 2006-2009). The Chief of the STPP subcommittee (Professor Kiyohumi Yumoto of *Kyushu University*) and other members of the subcommittee are moving forward with their instrument deployment plans – and are constructing database systems for public access. Table 1[1] is a list of Japanese scientists who have deployed (or soon will deploy) instrumentation overseas and will gradually make all acquired data available for public use (with some conditions attached). It should be noted that more members of the STPP subcommittee are preparing to join the instrument program or establish database systems, or both. In Figures 1 to 6, examples of instrument programs, education and outreach activities in Japan are shown.

4. To create awareness of ISWI in Japan, the STPP subcommittee is organizing an "ISWI-Japan Kick-Off Meeting" at *Kyushu Universit*y that will take place in March of 2010. Soon after that, the "ISWI-Japan International Symposium" will be held at Makuhari in May of 2010 with the help of the *Japan Geophysical Unio*n (JpGU). This symposium will be held every year in Japan during ISWI (2010 through 2012).

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[1] The original report submitted by Japan, containing a table and figures referred to in the text, can be found on the website of the Office for Outer Space Affairs of the Secretariat (http://www.unoosa.org/oosa/en/natact/iswi/2009/index.html).