

IV. International Space Weather Initiative

1. In accordance with General Assembly resolution 65/97, the Scientific and Technical Subcommittee considered agenda item 12, “International Space Weather Initiative” under the workplan contained in the annex to document A/AC.105/933 (para. 16).
2. The representatives of Canada, China, India, Japan, Slovakia and the United States made statements under agenda item 12. The observer for the World Meteorological Organization (WMO) also made a statement.
3. The Subcommittee heard the following scientific and technical presentations:
 - (a) “Space Weather Super – Storm Not IF but WHEN and Extreme Solar Minimum”, by the representative of the United States;
 - (b) “From Research to Operations – Ongoing and planned European and International Space Weather Projects”, by the representative of Germany;
 - (c) “International Space Weather Initiative Update”, by the representative of the United States;
 - (d) “Japanese Space Weather Activities”, by the representative of Japan;
 - (e) “Chinese Ground-based Space Weather Monitoring Project”, by the representative of China;
 - (f) “Scientific Activities on Space Weather Research in India”, by the representative of India;
4. The Subcommittee had before it notes by the Secretariat containing reports on regional and international activities related to the International Space Weather Initiative (A/AC.105/979).
5. The Subcommittee noted that the International Space Weather Initiative objectives were to develop the scientific insight necessary to understand the solar-terrestrial relationships inherent to space weather, to reconstruct and forecast near-Earth space weather and to communicate this knowledge to scientists, engineers, policy makers, and to the general public.
6. The Subcommittee welcomed the fact that participation in the Initiative was open to all countries, as instrument hosts or instrument providers. The initiative is governed by a Steering Committee of 16 members who meet once a year to assess progress and provide prioritization for the upcoming year. The Steering Committee held its first meeting in Vienna, on February 9, 2011. National coordinators from 81 countries help to coordinate ISWI activities at national level .
7. The Subcommittee noted that the Initiative consisted of three elements, the first the instrument array programme to operate and deploy space weather instruments. The second, the data coordination and analysis programme to develop predictive models using ISWI data and the third element, consist of training, education and public outreach programmes.
8. The view was expressed that research under the Initiative had to be a concerted effort globally, given that it would ultimately contribute to the understanding of the conditions on the Sun and the solar wind, magnetosphere,

ionosphere and thermosphere that could influence the performance and reliability of space-borne and ground-based technological systems and could endanger human life or health.

9. The Subcommittee noted with appreciation that the World Meteorological Organization (WMO) was supporting international efforts of ISWI since 2008, through the following elements: the capability to fly space weather instruments on meteorological satellites, the use of WMO information systems to enhance data exchange and data distribution worldwide and the exchange of experience between the atmospheric modelling community and the space weather community.

10. The Subcommittee noted with appreciation that information on the ground-based worldwide instrument arrays was being regularly distributed through a newsletter being published by the Space Environment Research Centre of Kyushu University (Japan) and through the International Space Weather Initiative website, maintained by the Academy of Sciences of Bulgaria (www.iswi-secretariat.org).

11. The Subcommittee noted with appreciation that the Office for Outer Space Affairs continues supporting the study of the effect of sudden disturbances on the ionosphere with the sudden ionospheric disturbance monitor installed at its permanent outer space exhibit. The daily data sets produced by that instrument and recorded by the Office were being transferred to Stanford University (United States) for scientists worldwide to use in their analysis of the complex relationship between the Earth and the Sun.

12. The Subcommittee welcomed the fact that the United Nations Programme on Space Applications organized the United Nations/NASA/JAXA Workshop on ISWI, Helwan, Egypt, from 6-10 November 2010 and welcomed the next Workshops which are scheduled to take place in Nigeria in 2011, and in Ecuador in 2012.

