

INTERNATIONAL SPACE WEATHER INITIATIVE (ISWI)

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The International Heliophysical Year (IHY), an international program of scientific collaboration to understand the external drivers of planetary environments, has come to an end. The IHY was a major international event of great interest to the member States, which involved the deployment of new instrumentation, new observations from the ground and in space, and an education component. We propose to continue the highly successful collaboration between the heliophysics science community and the United Nations Basic Space Science (UNBSS) program. One of the major thrust of the IHY was to deploy arrays of small instruments such as magnetometers, radio antennas, GPS receivers, all-sky cameras, particle detectors, etc. around the world to provide global measurements of heliospheric phenomena. The United Nations Basic Space Science Initiative (UNBSSI) played a major role in this effort. Scientific teams were organized through UNBSS, which consisted of a lead scientist who provided the instruments or fabrication plans for instruments in the array. As a result of the this program, scientists from UNBSS member states now participate in the instrument operation, data collection, analysis, and publication of scientific results, working at the forefront of science research. As part of this project, support for local scientists, facilities and data acquisition is provided by the host nation. In addition, support at the Government level is provided for local scientists to participate. Building on momentum of the IHY, we propose to continue the highly successful collaboration with the UNBSS program to continue the study of universal processes in the solar system that affect the interplanetary and terrestrial environments, and to continue to coordinate the deployment and operation of new and existing instrument arrays aimed at understanding the impacts of Space Weather on Earth and the near-Earth environment. Toward this end, we propose a new program, the International Space Weather Initiative (ISWI).

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