UN Basic Space Science Initiative for the International Heliophysical Year

What is IHY?

In 1957 a program of international research, inspired by the International Polar Years of 1882-83 and 1932-33, was organized as the International Geophysical Year (IGY), endorsed by the United Nations, to study global phenomena of the Earth and geospace. The IGY involved about 60,000 scientists from 66 nations, working at thousands of stations, from pole to pole to obtain simultaneous, global observations on Earth and in space. There had never been anything like it before. The fiftieth anniversary of IGY will occur in **2007**. We propose to organize an international program of scientific collaboration for this time period called the **International Heliophysical Year (IHY)** involving scientists and engineers from **all 191 Member States of the United Nations**. IHY will focus on the problem of solar variability and its connection to terrestrial effects at Earth and space.

What does "Heliophysical" mean?

"Heliophysical" is an extension of the word "Geophysical," extending the connections from the Earth to the Sun & interplanetary space. The 2007 "IHY" activities will build on the success of IGY 1957 by continuing the legacy of system-wide studies.

Basic Space Science Initiative (UNBSSI)

The UN/ESA Basic Science Workshops for developing nations, since 1991, have worked to stimulate and establish basic space science activities in developing nations. The Planning Team for the Initiative held its first meeting in October 2004. The team was able to identify several global low-cost ground-based array initiatives which may be deployed in developing nations as part of IHY. The annual workshops in 2005-2008 will focus on continuing cooperation with developing nations and exploring such opportunities.

What are the goals of IHY?

The objective of the IHY is to discover the physical mechanisms at work which couple the atmosphere of the Earth to events that drive them from the heliosphere. The systematic global study of this connection is to be the central theme of the IHY. In view of these aims, we propose the following objectives for the IHY:

* To obtain a coordinated set of observations to study at the largest scale the solar-generated events which affect life and climate on Earth.
* To document and report the observations and provide a forum for the development of new scientific results utilizing these observations.
* To foster international cooperation in the study of heliophysical phenomena now & in the future.
* To communicate the unique scientific results of the IHY to the interested scientific community and to all peoples of Earth.

Opportunities for Involvement!

The **first Workshop under the UNBSSI** will be held at the United Arab Emirates University, 20-23 November 2005, Al-Ain, UAE. Although the workshop will be open to address all scientific results and plans for basic space science in developing nations, special emphasis will be given to the possibilities offered by the preparations for the International Heliophysical Year (IHY). Additional workshops will be held annually. Interested parties who have access to the World Wide Web may register their participation in the IHY "Science Coordination Database." Go to the IHY website at *http://ihy.gsfc.nasa.gov* and enter the "Get Involved" section. Additional opportunities for participation are also included on this site.

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