

## IHY Activity in Japan

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<http://www.serc.kyushu-u.ac.jp>, <http://www2.nict.go.jp/y/y223/sept/IHY/IHY.htm>

The International Heliophysical Year (IHY) 2007-2008 is an extensive international program to study the universal physical processes in the heliospace for a better understanding of the Sun-heliosphere system. In particular, the neutral and ionized matter in the heliospace and the interaction between them will be studied, from the atmospheres of Earth and planets to the interplanetary medium. The IHY will continue the legacy of the IGY during 1957-58 by extending the geophysical studies of 50 years ago to the combined system of the Sun and the planets. IHY also extends the physical realm from geospace to heliospace, recognizing the enormous progress made over the past 50 years.

There are four key elements of IHY: 1) Science (coordinated investigation programs of CIPs conducted as campaigns to investigate specific scientific questions, 2) Instrument development (the IHY/INBSS program), 3) Public Outreach (to communicate the beauty, relevance and significance of the space science to the general public and students), and 4) the IGY Gold Club program (to identify and honor all those scientists who worked for the IGY program).

IHY organization in Japan was recognized to conduct as the STPP Sub-Committee under the International Subgroup of the Earth and Planetary Science Committee, Science Council of Japan, in June, 2006. Three global observations contribute to **IHY Science and Instrument development**: 1. MAGDAS Real-time Magnetometer Network (PI: Prof. K. Yumoto, Space Environment Research Center, Kyushu Univ.) MAGDAS is being deployed for space weather studies from 2005 to 2008, overlapping greatly with the IHY/UNBSSI program. The project will aid the study of the dynamics of geospace plasma environment during magnetic storms and auroral substorms. 2. Muon Detection Network (PI: Prof. K. Munakata, Shinshu Univ.) This system performs space weather monitoring from the perspective of muon detection. In December 2005, this world-wide network of muon detectors was upgraded with an enlargement of a detector in Brazil. This enlargement vastly improved the coverage of cosmic ray pitch angle. 3. Interplanetary scintillation (IPS) Network (PI: Prof. M. Kojima, Solar-Terrestrial Environment Laboratory, Nagoya Univ.) The IPS is the remote sensing technique to observe the solar wind which has advantages over some in situ spacecraft measurements: It can observe three-dimensional solar wind in a short time, and the observations can be carried out consistently over a solar cycle. The IPS network does synergistic collaboration with the Solar Mass Ejection Imager (SMEI).

**Public Outreach** is carried out through Network of International Space Environment Services of the National Institute of Information and Communication Technology (NICT). At Space Weather Information Center, real-time data from satellites and ground observatories are monitored, and a forecast is issued everyday at 6:00 UT. The exploitation of space requires that we have a better understanding of space weather.

**IGY Gold Club**; Part of IHY is to celebrate the accomplishments of the International Geophysical Year of 1957. With this in mind, last year the 'IGY Gold Club' was initiated. Members are limited to those individuals who participated in IGY. To date, the following persons from Japan have been selected as Gold Club Members: Dr. Kaichi Maeda, Dr. Hiroshi Maeda, Dr. Masahisa Sugiura, and Dr. Noboru Wakai.

This summer (June of 2007) Japan is hosting an UN/ESA/NASA **Workshop on Basic Space Science and IHY 2007** at the National Olympics Memorial Youth Center in Tokyo. Many workshops are being held in various countries in conjunction with IHY, with an aim to benefit scientists and engineers from developing nations. Information on the International Heliophysical Year 2007 and the aforementioned workshop is available at <http://ihy2007.org>.

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