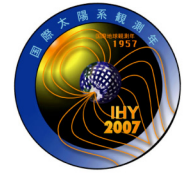


IHY Activities in Japan



Kiyohumi Yumoto, Kazunari Shibata, Takashi Sakurai,
Masayoshi Kojima, Masaki Fujimoto, Shinichi Watari
IHY Organization in Japan

1. UN/ESA/NASA Workshop on Basic Space Science and IHY 2007

This summer (June of 2007) Japan is hosting an IHY Workshop at the National Olympics Memorial Youth Center in Tokyo. These workshops are being held in various countries in conjunction with the International Heliophysical Year, 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>

Key Dates for the Workshop

Announcement of the Workshop 01 February 2007
Deadline for Applications 01 April 2007
Notification to Authors 01 May 2007
Workshop 11-15 June 2007

Local Organizer of the Workshop
National Astronomical Observatory Japan

Contact Person:
Prof. Kazuhiro Sekiguchi
National Astronomical Observatory of Japan
2-21-1 Ohsawa, Mitaka, Tokyo 181-8588, Japan
Phone: +81-422-34-3955
Fax: +81-422-34-3690
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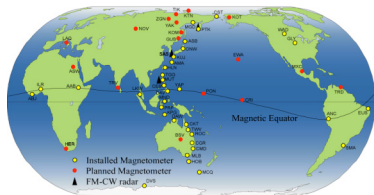
4. Global Observations

4-1. MAGDAS -- Real-time Magnetometer Network

PI: Prof. K. Yumoto
Space Environment Research Center
Kyushu University, Japan.

MAGDAS is being deployed for space weather studies from 2005 to 2008, overlapping greatly with the IHY/UNBSSI programme. The project will aid the study of the dynamics of geospace plasma changes during magnetic storms and auroral substorms; the electro-magnetic response of the iono-magnetosphere to various solar wind changes; and the penetration and propagation mechanisms of DP2 channel-ULF range disturbances from the solar wind region into the equatorial ionosphere. With the help of MAGDAS data, one can conduct real-time monitoring and modeling of:

(1) the global three-dimensional current system; and (2) the ambient plasma density for understanding the electromagnetic and plasma changes in the geospace.



2. IHY Organization in Japan

[IHY Japan - National Steering Committee, as recognized by the Science Council of Japan]

ORGANIZER

Prof. Kiyohumi Yumoto
Space Environment Research Center, Kyushu Univ.

COORDINATORS

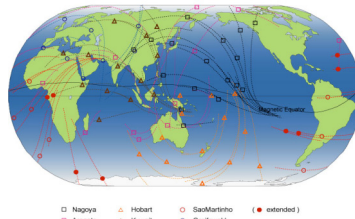
Prof. Kazunari Shibata
Kwasan and Hida Observatories, Kyoto Univ.
Prof. Takashi Sakurai
National Astronomical Observatory of Japan
Prof. Masayoshi Kojima
STE Lab., Nagoya Univ.
Prof. Masaki Fujimoto
JAXA/ISAS
Dr. Shinichi Watari
National Institute of Info. & Com. Tech. (NICT)



4-2. Muon Detection Network

PI: Prof. Kazuoki Munakata
Shinshu University, Japan.

This system, Muon Detection Network, 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.



The MUON DETECTOR NETWORK TEAM consists of the following institutes:

(1) Physics Department, Shinshu University; (2) Bartol Research Institute, University of Delaware; (3) STE Laboratory, Nagoya University; (4) Australian Antarctic Division; (5) School of Mathematics and Physics, University of Tasmania; (6) Southern Regional Space Research Center, National Institute for Space Research

3. IGY Gold Club Members

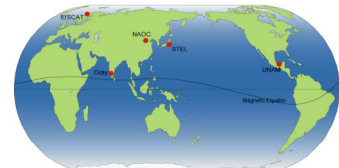
Part of IHY is to celebrate the accomplishments of the International Geophysical Year of 1957. With this in mind, last year the "IGY Gold Club" was initiated. Members are limited to those individuals who participated in IGY. To date, the following persons from Japan have been selected as Gold Club Members:

- Dr. Kaichi Maeda
- Dr. Tan Maeda
- Dr. Masahisa Sugiura
- Dr. Noboru Wakai

More members from Japan are expected, and are currently being nominated.

4-3. Interplanetary scintillation Network

PI: Prof. M. Kojima
Solar-Terrestrial Environment Laboratory



The interplanetary scintillation (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. We are planning coordinate IPS observations among IPS facilities, so that we can observe the solar wind in the full distance range from near sun region to the earth orbit and monitor the solar wind 24 hours a day. The IPS network does synergistic collaboration with the Solar Mass Ejection Imager (SMEI) which gives measurements of bulk density changes with much higher spatial resolution than the IPS. We also carry out a complementary collaborative project between the muon network and the IPS network, both of which can derive 3D CME structure. The IPS observe the density compressed region ahead of the ICME, while the muon network observes flux rope structure in the ICME.

4-4. Network of International Space Environment Services

PI: Dr. Shinichi Watari
National Institute of Info. & Com. Tech. (NICT)



Pictured above is the NICT ("National Institute of Information and Communication Technology" of Japan) Space Weather Information Center. Here, real-time data from satellites and ground-based 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.