

## IHY (International Heliophysical Year) Activities in Japan

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<http://www2.nict.go.jp/y/y223/sept/IHY/IHY.htm>

The IHY is an extensive international program to *study the universal physical processes in the heliospace* for a better understanding of the Sun-heliosphere system. There are three elements and a program; 1) *Science*; Coordinated Investigation Programs (CIPs) conducted as campaigns to investigate specific scientific questions, 2) *Instrument development* of the IHY/UNBSSI program, 3) *Public outreach* to communicate the beauty, relevance and significance of the space science to the general public and students, and 4) *IGY Gold Club Program* to identify and honor all scientists who worked for the IGY program.

In Japan the following projects are conducted during the IHY period;

2.1 *Hinode Project* Contact: Prof. T. Sakurai, JNAO.

*Hinode* (Sunrise) is a project to study the Sun, led by the Japanese Aerospace Exploration Agency (JAXA). *Hinode's* three year mission is to explore the magnetic fields of the Sun, and improve our understanding of the mechanisms that power the solar atmosphere and drive solar eruptions.

2.2 *CHAIN Network* PI: Dr. S. Ueno and Prof. K. Shibata, Kwasan and Hida Obs., Kyoto Univ.

Continuous H-alpha Imaging Network (CHAIN) project was planned to monitor solar flares and erupting filaments continuously by using several of characteristic telescopes. As part of CHAIN project, Peru is selected as the country where the 1st overseas Flare Monitoring Telescope (FMT) will be installed.

2.3 *Interplanetary Scintillation (IPS) Network* PI: Prof. M. Kojima, STEL, Nagoya Univ.

The IPS observation is one remote sensing technique to study the solar wind. This method can observe three-dimensional transient solar wind structure, and long-term variations over a solar cycle.

2.4 *Muon Detector Network* PI: Prof. K. Munakata, Shinshu Univ.

Muon Detector Network performs space weather monitoring through the observation of the directional intensity of high-energy cosmic rays. In March 2006, this world-wide network of muon detectors was upgraded, and vastly improved the coverage of cosmic ray pitch angle.

2.5 *MAGDAS (MAGnetic Data Acquisition System) Network* PI: Prof. K. Yumoto, SERC, Kyushu Univ

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, and the couplings in the sun-earth system.

2.6 *QSAT Satellite Project* PI: Dr. T. Hanada, Kyushu Univ.

The Kyushu Satellite (QSAT) is a micro satellite, which is being developed by Kyushu University, Kyushu Institute of Technology, and Fukuoka Institute of Technology to observe the fluctuation of the magnetic field in the aurora zone, the variation of the plasma density and the spacecraft charging.

2.7 *OMITs Network* PI: Dr. K. Shiokawa STEL, Nagoya Univ.

Optical Mesosphere Thermosphere Imagers (OMITs) are installed to study low-latitude aurora, plasma bubble, gravitational waves at middle and low latitudes.

3. *International Space Environment Service (ISES) for Public Outreach* PI: Dr. S. Watari, NICT.

NICT operates one of eleven ISES centers. Each center makes forecasts of flares, geomagnetic storms, and high-energy proton events for public outreach every day.

4. *IGY Gold Club Program*

The IGY Gold Club was initiated in 2006. Members are limited to the individuals who participated in IGY. More than 10 Japanese scientists were selected as Gold Club Members. More members from Japan are currently being nominated