

Concluding Remarks

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Summary of Japanese activities of this three years (ISWI period)

During the ISWI period, Japanese STP community has focused on the following three point:

1. Deploying new and existing instrument-arrays
2. Data coordination (Construction of database systems)
3. Contribution to the progress of basic space science
(Capacity Building: Education, Training and Public outreach)

Concretely, Japanese community has contributed to mainly the following points :

- * Actively expanding instrument programs
 - MAGDAS (Magnetic Data Acquisition System)
Installation of new magnetometer at about 17 sites
 - CHAIN (Continuous H-alpha Imaging Network)
A Flare Monitoring Telescope (FMT) was installed in Peru,
Supporting installation of two new FMTs in Algeria and Saudi Arabia
 - GMDN (Global Muon Detector Network)
Improved detectors of 3 sites (Brazil, Kuwait, Australia)
Installing one new detector in Mexico
 - OMTIs (Optical Mesosphere Thermosphere Imagers)
Installation of all-sky airglow imager and Fabry-Perot interferometer
in Indonesia and Australia
 - SEALION (South-East Asia Low-Latitude Ionospheric Network)
Operating the network of ionosondes, GPS receivers, GPS scintillation
monitors, magnetometers, all-sky airglow imager and meteor radar.

- * Database systems
 - On each web site of each instrument program
STEL (Nagoya Univ), JAXA, WDC for Geomagnetism (Kyoto Univ),
Kwasan and Hida Observatories (Kyoto Univ), SERC (Kyushu Univ), etc.
 - Developing “Metadata database”, “Searching system” and “Data analysis software”
by Inter-university Upper atmosphere Global Observation NETwork (IUGONET)
It covers almost ground-based observational data of Japanese instrument array

- * Expanding space weather outreach activities
Network of International Space Environment Services (ISES) of NICT
=> forecasts of flares, geomagnetic storms, and high-energy proton events every day

- * Leading ISWI Newsletter Office and publishing news letters
by SERC (Kyushu Univ)

- * MAGDAS Session in ISWI symposium in 2010

- * Organizing several scientific data analysis workshops
 - MAGDAS School (every year)
 - FMT Data Analysis Workshop (2010, 2011)
 - SEALION Symposium (2011)

- * Convening special meetings
 - ISWI-Japan Kick-Off Meeting at *Kyushu University* in March of 2010
 - Dedicated ISWI sessions during the international symposium of Japan Geoscience Union (JpGU) in 2010 – 2012

In Future after ISWI period

In “Space Policy Committee” of the Japanese Government, “space environment monitoring” was taken up with “space debris” as an important item in Aug. 2012.

The Japanese STP community continues carrying out activities to succeed the spirit of the ISWI program through mainly the following items, while taking a decided policy by United Nations and Japanese Ministry of Foreign Affairs into account.

* International Center for Space Weather Science and Education (ICSWSE)

- (1) Evolve internationally as the Center for Space Weather Science and Education consistent with the Abuja International Space Weather Initiative resolution (A/AC.105/1018: IV)
- (2) Creating the foundations of Space Weather Study, Geospace Science
- (3) growing into a network of centers, focusing on space weather around the world, dedicated to the advancement of space weather research and education
- (4) conducting overseas ISWI/MAGDAS Schools
- (5) implementing student exchanges
- (6) installing ground magnetometers (e.g.,MAGDAS) in "missing areas"
- (7) bringing students who want to space weather science to study at Japanese universities.

* Improving and Expanding 5 instrument arrays (MAGDAS, CHAIN, GMDN, OMTIs, SEALION)

* Promote international cooperative researches by using ISWI data and combining other data

* Continuing to publish ISWI newsletters

* ERG Satellite that will be launched in 2015

- Prompt open and commonise of observed data for the whole world
- Planning to hold international data analysis workshops and scientific meetings
- World-widely receiving graduate students and employing researchers

Thanks to ISWI, many things progressed in Japan too.
Such things as: activities of observations, studies,
education and spread of space weather and space
science.

We thank ISWI very much on this occasion.