Keynote of ISWI / MAGDAS School on Litho-Space Weather

K. Yumoto, L.B. Kolawole, and A.B. Rabiu

15-20 August 2011
Venue: Redeemer’s University, near Lagos, Nigeria

Co-organizers:
● Space Environment Research Center (SERC), Kyushu Univ., Japan
● National Space Research and Development Agency (NASRDA), Abuja, Nigeria
● Redeemer’s University (RUN), Redemption City, Nigeria
● African Regional Centre for Space Science and Technology Education – (ARCSSTE-E), Ile-Ife, Nigeria
● Federal University of Technology, Akure, Nigeria
1. MAGDAS (MAGnetic Data Acquisition System) Project
Space Environment Research Center (SERC), Kyushu Univ.

PI: Prof. K. Yumoto

ΔT=10Hz  MAG-9 MAGNETOMETER
2. Objectives of MAGDAS School

In order to realize “Equal Partnership” between “instrument provider” and “instrument hosts,” which is the guiding principle of UN / IHY / ISWI, and to make MAGDAS Project collaborations long-term and self-sustaining, MAGDAS members should exchange information and opinions frankly between members, and initiate discussions about how to accelerate Capacity Building for MAGDAS project.
3. MAGDAS Session

ISWI UN/NASA/JAXA Workshop

Helwan Univ., Egypt, Nov.8-9, 2010

1. Instrument related; 16 talks (SERC, Nigeria, Zambia, Mozambique, Tanzania, Ethiopia, Kenya, Sudan, India, Peru, Australia, Philippines, Brazil),
2. Data related; 3 talks (SERC, Indonesia, Malaysia, Australia),
3. Science related; 11 talks (SERC, Nigeria, Ethiopia, Italy, Australia, Philippines, Nigeria, Cote d’Ivoire, Brazil, Egypt), EEJ, Sq, DP2, Pc 3-4, Pi 2, EQ-related, Space Weather, etc.
3.2 Proposed Capacity Building

1) Instrument Capacity
   - Noise testing, Calibration, Installation, and Maintenance of MAGDAS system

2) Data Analysis Capacity
   - Data correction, Making databases, and Learning research tools

3) Science Capacity
   - Data analysis, Presentation in Meetings, and Publications

RM-1: ISWI / MAGDAS School and Workshop
RM-2: Short-term and long-term exchanges of students and young staff
RM-3: Supervising and co-supervising students
**RM-1: ISWI / MAGDAS School for Litho-Space Weather**

Venue: Redeemer’s University, Mowe, Lagos, Nigeria.
Date: August 15-20, 2011

The Space Environment Research Centre (SERC) of Kyushu University is holding a training workshop titled “ISWI / MAGDAS School for Litho-Space Weather” in Nigeria, Africa during summer of 2011. The Workshop is aimed at training personnel how to handle MAGDAS data and systems. It is envisioned to be a one-week intensive training school. Participants shall be drawn from Japan, Indonesia, Philippines, several African and other countries. Participants shall be mainly persons hosting or working with MAGDAS facilities/data.

**Features**
Personnel training and development
MAGDAS operation and maintenance
Data coordination
Special topics: Principles of geomagnetism, Space weather, Equatorial ionosphere, lithospheric dynamics

**Sponsorships**
A travel grant is expected from SERC, Kyushu Univ., and NASA/UN. Nigeria shall endeavor to take care of local support, including room and board.
RM-2: Noise Testing & Calibration of Magnetometer

Calibration of Magnetometer

MAGDAS Test Station
Sasaguri, Japan
RM-2: Installation in the Philippines

Sensor Hut at Legazpi

Sensor hut

main body room

65m Cabling

RM-2: Learning Research Tools

Setting the Main Body

65 m Cabling
RM-3: Supervising Students to Carry out Data Analysis, Presentation & Publication

Analysis

Discussion

Publications

Presentation
4. Goal of MAGDAS Project and its Roadmap

The final goal of the MAGDAS project is to make collaborations long-term and self-sustaining on a truly global scale.

To achieve this, we must follow this roadmap:
(1) Exchange information and opinions frankly about how we can accelerate Capacity Building.
(2) Organize ISWI / MAGDAS Schools to train young people on how to maintain instruments and how to use the data generated,
(3) Encourage short-term and long-term exchanges of students and young staff,
(4) Supervise or co-supervise Ms and PhD students of MAGDAS hosts.