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差出人　George Maeda

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Attachment(s):
(1) "NASA Press Rel on UN-ISWI 2010", 346 KB pdf, 2 pages.

: Re:
: NASA Press Release.
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Dear ISWI Participant:

This issue is "2010 ISWI Workshop #7."

I attach the NASA Press Release for this workshop.

Respectfully and sincerely yours,
: George Maeda
: The Editor
: ISWI Newsletter

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THE INTERNATIONAL SPACE WEATHER INITIATIVE

Nov. 8, 2010: Prompted by a recent increase in solar activity, more than a hundred researchers and government officials are converging on Helwan, Egypt, to discuss a matter of global importance: storms from the sun. The "First Workshop of the International Space Weather Initiative (ISWI)" meets Nov. 6th through 10th and is convened by the United Nations, the National Aeronautics and Space Administration (NASA), and the Japan Aerospace Exploration Agency (JAXA).

"Strong solar storms can knock out power, disable satellites, and scramble GPS," says meeting organizer and ISWI executive director Joe Davila of NASA's Goddard Space Flight Center. "This meeting will help us prepare for the next big event."

Click on the image to view a complete poster advertising the First Workshop of the International Space Weather Initiative in Helwan, Egypt.[more]

A key problem organizers hope to solve is a gap--many gaps, actually---in storm coverage around our planet. When a big storm is underway, waves of ionization ripple through Earth's upper atmosphere, electric currents flow through the topsoil, and the whole planet's magnetic field begins to shake.

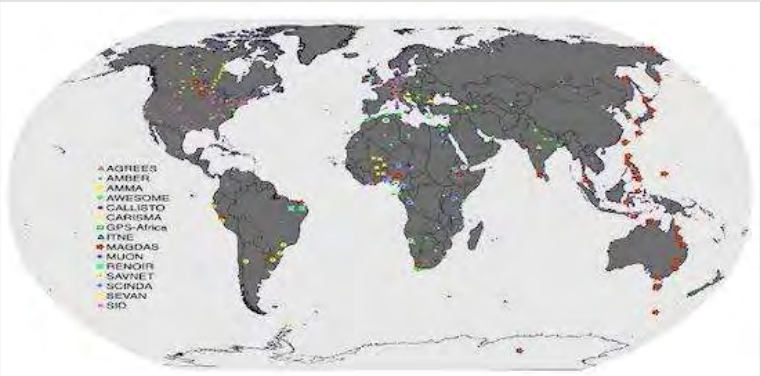
"These are global phenomena," says Davila, "so we need to be able to monitor them *all around the world*."

Industrialized countries tend to have an abundance of monitoring stations. They can keep track of local magnetism, ground currents, and ionization, and provide the data to researchers. Developing countries are where the gaps are, particularly at low latitudes around Earth's magnetic equator.

Although space weather is usually associated with Earth's polar regions--think, "Northern Lights"--the equator can be just as interesting. For example, there is a phenomenon in Earth's upper atmosphere called the "equatorial anomaly." It is, essentially, a fountain of ionization that circles the globe once a day, always keeping its spout toward the sun. During solar storms, the equatorial anomaly can intensify and shape-shift, bending GPS signals in unexpected ways and making normal radio communications impossible.

"International cooperation is essential for keeping track of the equatorial anomaly," he adds. "No single country can do it alone."

It's no coincidence that the inaugural meeting of the ISWI is being held in Egypt, an equatorial country. Of 30 nations sending representatives to the ISWI, more than two-thirds are clustered around the magnetic equator. This could lead to a revolution in studies of low-latitude space weather.



A map of ISWI-brokered space weather monitoring stations. Prospective participants should visit the ISWI home page to learn more about available projects and how to become involved.

There is much to do beyond the equator, too. During the meeting, researchers and students will learn how they can set up monitoring stations for cosmic rays, ground currents, magnetic storms, and auroras. There's a phenomenon for every latitude and level of expertise.

"We are offering a whole buffet of research opportunities," says Davila.

Researchers who miss the first meeting will get many more chances. The International Space Weather Initiative is an ongoing program with get-togethers planned on an annual basis at different spots around the world. The next meeting will be held in Nigeria in November 2011.

No country is too remote, too small, or too poor to participate. Indeed, notes Davila, "the smallest most out of the way places are often where data are needed most. Everyone is invited."

Interested? Details and contact information may be found at the ISWI home page: http://iswi-secretariat.org/

Author: Dr. Tony Phillips | Credit: Science@NASA

More Information

First Workshop of the International Space Weather Initiative (ISWI) -- workshop home page

The ISWI got its start in 2008 after the United Nations concluded the 2007 International Heliophysical Year (IHY). The goal of IHY was to raise global awareness of heliophysics, the emerging science of space weather, and to make cross-disciplinary connections among researchers. Hundreds of seminars, conferences, and classroom visits in dozens of countries during IHY 2007 laid the groundwork for the ongoing initiative. NASA, JAXA and the UN are primary sponsors.