UNITED NATIONS
Office for Outer Space Affairs

United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

UN-SPIDER

January 2012 Updates

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UN-SPIDER News

1. The UN-SPIDER Knowledge Portal gets a new look

Taking advantage of the latest maintenance efforts targeting the core software of the UN-SPIDER Knowledge Portal, new facets were incorporated to enhance its use. The "UN-SPIDER-World", which was launched last month, has been positioned at the top-right corner. This application will allow you to navigate the globe and find out the latest news on UN-SPIDER networks and technical advisory missions, outreach events, and news from the space and the disaster management communities. The Space Application Matrix has also been shifted to a more central position. It offers an easy entry point to case studies about space-based Information for disaster management and emergency response. These two specific features, as well as the whole content base and usability are under steady improvement. The latest change also incorporates a rearrangement of the sections on the front page to allow you to find more quickly information on the UN-SPIDER Regional Support Offices and National Focal Points, as well as technical guides on a variety of topics. The next upgrades will include an updated design of the Regional Support Office pages. We'll let you know about this specific change upon completion and on future additions in the next editions of the Updates.

For further information>> contact Peter Stumpf

2. Invitation to participate in Technical Advisory Mission to Myanmar from 19-23 March 2012

UN-SPIDER is inviting experts to participate in the Technical Advisory Mission to Myamnar from 19-23 March 2012. The mission is organized based on the invitation from Government of Myanmar. The purpose of the mission will be to advise the Government of Myanmar and the Relief and Resettlement Department (RRD) of the Ministry of Social Welfare in particular regarding how to enhance their capacity to use space-based information in all phases of the disaster management cycle, aiming also at being better prepared for the 2012 cyclone season. Experts who are engaged with Myanmar in promoting space technology for disaster

management and who are willing to be part of the mission team may contact Mr. Shirish Ravan (shirish.ravan@unoosa.org) to obtain further information.

RSO News

3. 3rd Meeting of UN-SPIDER Regional Support Office to take place in Vienna

In the past three years the Regional Support Offices (RSOs) have contributed extensively to the implementation of UN-SPIDER's Plan of Work through their active participation in technical advisory missions, outreach and training activities and through the provision of technical advisory support, in particular in the case of those countries experiencing disasters. Covering Asia, Africa, Latin America and the Caribbean, the RSOs are at the core of UN-SPIDER's support at the national level.

The 3rd Annual Meeting of RSOs will take place on 6 – 7 February 2012 at the Vienna International Center. The meeting will bring together representatives from nine RSOs already established and representatives of government institutions from Indonesia, Hungary, Turkey, the Russian Federation and other countries which are in the process of formalizing agreements to become RSOs as well.

This meeting will focus on ways to enhance cooperation among RSOs, ways to take advantage of opportunities available to support efforts targeting prevention and mitigation, early warning, preparedness, response, and early recovery. In addition, the meeting will include presentations on the VALID project and on existing mechanisms that provide space-based information to support emergency relief operations. The meeting takes place in parallel with the 49th session of the Scientific and Technical Sub-Committee of the Committee of Peaceful Uses of Outer Space (COPUOS).

*For further information >> contact **Lorant Czaran***

4. ADRC Organized Second Expert Group Meeting: Toward Creative Learning from the Mega-Tsunami Disaster

The Asian Disaster Reduction Center (ADRC) held its second expert group meeting with the Japanese Cabinet Office, the UN Economic and Social Commission for Asia and the Pacific (ESCAP), the Japan International Cooperation Agency (JICA), and the International Recovery Platform (IRP), in Tokyo on 16-17 December 2011. The meeting gathered policy makers from Japan and other countries in the Asia Pacific region to discuss lessons learned from the Great East Japan Earthquake and the major policy changes adopted since then. The meeting also provided an opportunity to discuss the relevance of the Japanese experience in the international context and to gather feedback from experts from other countries.

*For further information>>**ADRC***

5. Solar Flares and Magnetic Storms monitored by SUPARCO

The Space Weather Monitoring Facilities at SUPARCO, the UN-SPIDER RSO in Pakistan, recorded magnetic storms after the two solar flares (M3 & M-8.7) which occurred on Jan 19, 2012 around 20:15 PST & on Jan 23, 2012 at 08:59 PST. The medium intensity earthward solar eruption provoked disturbances in HF communications. Transpolar flights were also rescheduled and rerouted during the magnetic storms.

*For further information>>**SUPARCO***

Community News

6. Ocean health, disaster impacts monitored from above by satellite remote sensing

The International Society for Optics and Photonics (SPIE) held its Remote Sensing Conference held in Prague, Czech Republic, in September 2011 and set the stage for discussions regarding new remote sensing

technologies with applications targeting ocean fish stocks and natural disasters. Papers presented by experts have been published in the SPIE Digital Library, which offers free access to abstracts. Full papers are also available by rental, pay-per-view or subscription.
For further information>>SPIE

7. A step closer to mapping the Earth in 3D
After a year in service, the twin German Earth observation satellites TanDEM-X and TerraSAR-X, completely mapped the entire land surface of the Earth for the first time. TanDEM-X and TerraSAR-X have been moving through space in close formation, at times just a few hundred meters apart. Strip by strip, they have recorded the surface of the Earth from different angles and transmitted high-resolution radar data from their orbit at an altitude of 514 kilometers down to the three ground stations – Kiruna (Sweden), Inuvik (Canada) and O'Higgins (Antarctica).The data is being used to create the world's first single-source, high-precision, 3-D digital elevation model of Earth. The German Aerospace Center (Deutsches Zentrum fur Luft- und Raumfahrt; DLR), which controls both radar satellites, expects to have this digital elevation model by mid 2013. The aim is to create an exceptionally accurate, global and homogeneous 3D elevation model that promises to be of equal interest for commercial and scientific purposes.
For further information>>DLR and European Association of Remote Sensing Companies

8. China's Ziyuan III and Ziyuan I-02C satellites
The Chinese Ziyuan III satellite has sent back its first set of data just a few days after it was successfully launched on 9 January 2012. This satellite is expected to produce high-resolution imagery for civilian use. The National Surveying, Mapping and Geo-information Administration stated that it has posted hi-res imagery based on analysis of the data on the map website **tianditu.cn**, which operated by this Administration with independent intellectual property rights. The imagery covered an area of 210,000 square kilometers that includes the provinces of Heilongjiang, Jilin, Liaoning, Shandong, Jiangsu, Zhejiang and Fujian. According to the Administration, the image quality produced from this data is even higher than that achieved by overseas satellites with the same resolution, adding that ongoing tests on the satellite may further improve its image quality. *For further information>>China Daily USA*

In addition, China successfully launched the Ziyuan I-02C high-resolution, remote-sensing satellite on 22 December 2011 from the Taiyuan Satellite Launch Center in northern Shanxi province. Developed and produced by the China Academy of Space Technology, a subsidiary of China Aerospace Science and Technology Corporation (CASC), it is the country's first such orbiter that can acquire high-resolution data through remote-sensing, marking a key technological leap forward. According to the center, the satellite can conduct land resources surveys, reduce natural disasters, aid agriculture development and contribute to the management of water resources.
For further information>>Xinhua

9. Vietnam to launch earth-monitoring satellites
With the support of Japanese experts, Vietnam is building a set of earth-observation satellites which will assist the government in planning how to cope with the effects of climate change and natural disasters. Japan announced last November that it will provide a 40-year loan in the amount of nearly US$93 million (7.2 billion Japanese Yen) to Vietnam for equipment and capacity development connected to this bilateral satellite initiative. The first two satellites are expected to be launched in 2017 and 2020, according to Shohei Matsuura, senior advisor with the Japan International Cooperation Agency (JICA) in Hanoi.
For further information>>Science and Development Network

10. High Resolution OrbView - 3 Images Now Available from USGS

OrbView-3 satellite images collected around the world between 2003 and 2007 by the Orbital Imaging Corporation (now GeoEye) at up to one-meter resolution can now be downloaded at no cost through USGS EarthExplorer. The OrbView-3 dataset includes 180,000 scenes of one-meter resolution panchromatic, black and white, and four-meter resolution multi-spectral (color and infrared) data which will be useful for a wide range of science applications.

*For further information>>**U.S. Geological Survey***

11.SAFER is activated for Mozambique

On 07 January 2012, Mozambique's coast was hit by tropical depression "Dando" and then by cyclone "Funso". With wind speeds up to 220 km/h and torrential rains, the storms caused severe damages and floods. About 13,000 people were affected as well as communication and infrastructure along the coast. GMES-SAFER provided several Radarsat 2 and Landsat 5-7 satellite images of the region after the incident to support emergency relief operations.

*For further information >> **SAFER***

12. The International Charter is activated for Brazil

On 30 December 2011 the Charter was activated at the request of Brazil when at least 20,000 people had to be evacuated In Rio de Janerio, Brazil, after a dam burst. Heavy rains caused the dam to burst in Campos dos Goytacazes, Brazil. Mudslides also struck in the city of Belo Horizonte, killing 6 people due to severe weather conditions. A state of emergency has since been declared in 66 towns and cities in Minas Gerais which have been placed on red alert. The Brazilian government has sent civil defence officials to handle the worst affected areas to avoid further loss of human lives and material losses. Last year more than 800 people died due to severe flooding in Rio de Janerio.

*For further information >>**The International Charter***

Upcoming UN-SPIDER Outreach Activities

13. Fifth United Nations International UN-SPIDER Bonn Workshop on 24-26 April 2012

The Fifth United Nations International UN-SPIDER Bonn Workshop on Disaster Management and Space Technology will take place on 24 -26 April 2012 in the premises of the United Nations Campus in Bonn, Germany. Under the title: "Enhancing Resilience through Knowledge Management: Networks and the UN-SPIDER Knowledge Portal", the workshop will bring together developers, experts and practitioners to discuss strategies to enhance the use of space-based information to support all phases of the disaster management cycle. The workshop will also provide a forum to discuss novel applications of geo-viewers, web-based mapping tools, and other IT applications and infrastructure with particular emphasis on enhancing the use of space-based information in the areas of disaster-risk management and emergency response. In addition, it will provide the forum to discuss how such portals enhance the support provided by regional and global networks, including voluntary technical communities. Applications can be submitted through the online application tool at the UN-SPIDER Knowledge Portal (http://www.un-spider.org/workshop-bonn-2012). The deadline to submit applications is 23 March 2012. A limited number of selected international participants from developing countries will be offered financial support to attend the Workshop.

*For further information>> **UN-SPIDER***

Information on upcoming UN-SPIDER outreach activities can be obtained from the events section of the UN-SPIDER Knowledge Portal:

www.un-spider.org/events

We maintain a Calendar of Events with upcoming Conferences, Meetings and Events relevant to the area of space-based solutions for disaster management and emergency response. The Calendar can be viewed at:

www.un-spider.org/events

*The **United Nations Office for Outer Space Affairs (UNOOSA)** implements the decisions of the General Assembly and of the Committee on the Peaceful Uses of Outer Space and its two Subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. The Office is responsible for promoting international cooperation in the peaceful uses of outer space, and assisting developing countries in using space science and technology. Headquartered in Vienna, Austria, UNOOSA maintains a website at **http://www.unoosa.org**.*

*In its resolution 61/110 of 14 December 2006 the United Nations General Assembly agreed to establish the **"United Nations Platform for Space-based Information for Disaster Management and Emergency Response - UN-SPIDER"** as a programme within UNOOSA. UN-SPIDER focuses on the need to ensure access to and use of space-based solutions during all phases of the disaster management cycle.*