



# UN-SPIDER

## June 2010 Updates

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### UN-SPIDER News

#### 1. Agreement signed to establish UN-SPIDER Office in Beijing

On the margins of the fifty-third session of the Committee on the Peaceful Uses of Outer Space (COPUOS), H.E. Ambassador Hu Xiaodi, representing the Government of China, Mazlan Othman, Deputy-Director General of the United Nations Office at Vienna (UNOV) and Director of the Office for Outer Space Affairs (UNOOSA) signed an agreement to establish a new office of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) in Beijing, China. The UN-SPIDER office in Beijing will contribute to the implementation of UN-SPIDER, in particular by raising awareness and supporting Governments, international and regional organizations through the provision of technical advice in the use of and access to space-based information for disaster management and emergency response.

*For further information >> [UN-SPIDER News](#)*

#### 2. New booklet published on July 2<sup>nd</sup> by the Joint Board of Geospatial Information Societies (JBGIS) and the United Nations Office for Outer Space Affairs (UNOOSA)

A new booklet published on July 2nd by the Joint Board of Geospatial Information Societies (JBGIS) and the United Nations Office for Outer Space Affairs (UNOOSA) outlines the potential uses of geo-information technologies to reduce the impact of natural or manmade disasters and risks. "Geoinformation for Disaster and Risk Management - Best Practices and Examples" brings together concise scientific contributions from experts around the world and creates a decision support forum based on their knowledge. The articles in the booklet cover natural disasters like earthquake, flood, volcano outbreak, tsunami, landslide, dust storm and wildfire, as well as societal issues like health care, refugee camps, urban sprawl and infrastructure security. Case related regional studies are complemented by presentations of global information systems.

*For further information >> [UN-SPIDER News](#)*

#### 3. SpaceAid supporting response efforts to Tropical Cyclone in Pakistan

On 2 June 2010 Tropical Cyclone Phet hit the coast of Pakistan affecting a large percentage of the coastal population and that of Karachi as well. UN-SPIDER staff started coordinating with its Regional Support Office SUPARCO in anticipation of the cyclone, and discussed with the local UNDP office the various possibilities for

space-based support. The International Charter Space and Major Disasters was then activated by UNITAR/UNOSAT on behalf of UNOCHA on 7 June 2010. UN-SPIDER provided the coordinates of the affected areas and other relevant information on a dedicated SpaceAid Updates page on its Knowledge Portal (<http://www.un-spider.org/spaceaid>) and also published the contact data of the local focal points in Pakistan, thereby facilitating direct communication between most involved parties. Communication from UN-SPIDER ensured that as other mechanisms activated for similar support, such as SAFER as requested by the World Food Programme (WFP), all information was becoming available to the UN staff on the ground as well as to all known end-users and other interested parties. Further efforts were made to ensure that new radar and optical imagery collected would be shared with the users that required it, to the extent possible.

#### **4. UN-SPIDER network activities presented at European GEOSS Workshop in Brussels**

The Global Earth Observing System of Systems (GEOSS) is aiming at improving our understanding of the Earth system, thereby enhancing global policy- and decision-making abilities. Europe as one of the cornerstones of the Group on Earth Observations (GEO) intends to provide a strong GEOSS component. The goals of this workshop were an updated report on the European status quo, a strategic document which refers to a coordinated European contribution to GEO, potential inputs to a coherent European position and visibility at the GEO Ministerial Summit taking place in Beijing in November 2010. In addition to coordination issues within the framework of Global Monitoring for Environment and Security (GMES), certain data sharing policies were discussed during the workshop, as well as questions concerning the extent of the mandate of GMES with regard to the different phases of the disaster management cycle. UN-SPIDER was invited to present its work, focusing on the network component of the programme, namely the network of Regional Support Offices and the National Focal Points. UN-SPIDER recently received the official confirmation of its status of Special Observer in the SAFER project and UN-SPIDER's support by being an interface between European and international mechanisms such as Sentinel Asia, ADRC or SERVIR was confirmed at this occasion.

#### **5. 2<sup>nd</sup> Ukrainian Conference with international participation: Earth Observation for Sustainable Development and Security**

The goal of the conference, which took place from 14 to 17 June in Kiev, was to discuss the prospects of air- and space-born data utilization for natural resources management, sustainable development and security in the context of the Global Earth Observing System of Systems (GEOSS), Global Monitoring for Environment and Security (GMES), and Infrastructure for Spatial Information in Europe (INSPIRE) activities and the establishment of the Ukrainian segment of GEOSS (GEO-UA system). UN-SPIDER gave a presentation in the plenary illustrating the range of its activities with a special focus on the role of the newly established Regional Support Office (RSO) in Kiev. The official opening ceremony of the new RSO took place during the workshop. The RSO will be hosted at the Space Research Institute (USRI) of the National Academy of Sciences of Ukraine (NASU) and the National Space Agency of Ukraine (NSAU). At the ceremony the activities of the RSO and the related international cooperation with the disaster management and the space community on a global scale were presented.

## **Community News**

#### **6. International Charter Space and Major Disasters activated four times in June**

In the month of June 2010 the International Charter Space and Major Disasters was activated four times. The first activation on 7 June was initiated in response to Tropical Cyclone Phet, which made landfall along the Sindh Coast of Karachi. Heavy rainfall with high winds caused flash floods and infrastructure damage, major traffic arteries were submerged and power supply was disrupted. The second activation followed on 17 June for flooding in Myanmar: The Northern Rakhine State in Myanmar faced continuous rains that flooded several areas including in Maungdaw and Buthidaung. The Government confirmed the death of 42 people. Landslides occurred in several places in Buthidaung and roads and bridges were either cut or damaged by the floods. On

21 June severe floods affected several regions in Southern China for nearly a week. Hundreds of people died and as many were missing, about one million have fled their homes. The alert remains in effect because more rain is expected. On 22 June Canada suffered flooding due to intensive rain, which caused the closure of several roads, including the Trans-Canada Highway at the Alberta-Saskatchewan border. Many infrastructures were damaged and various communities declared a state of emergency.

*For further information >> [International Charter Space and Major Disasters](#)*

#### **7. SAFER activated for flash floods in Var, France**

On 15 June 2010, heavy rains caused water levels to rise swiftly in the Var department (South East of France), preventing many people from fleeing to higher ground and forcing some to seek shelter on the roofs of their homes. Flash floods left at least 15 people dead and 12 people missing. Overnight, rescue workers concentrated on helping hundreds of people trapped in their vehicles, houses or on rooftops. The Services and Applications For Emergency Response's (SAFER) focal point was activated on 15 June 2010 by the French Civil Protection (COGIC). The activation covers one main area (global overview of the flash flood) and three more specific areas including Saint-Tropez, Draguignan and Le Luc in order to identify potential urban damages.

*For further information >> [SAFER](#)*

#### **8. Philippine Government keen on geo-hazard mapping**

The Department of Environment and Natural Resources (DENR) and the Department of Social Welfare and Development (DSWD), Philippines, signed an agreement to conduct a detailed geo-hazard mapping of three key cities in the Bicol Region to reduce the risk of disasters in these areas. The agreement was signed in the presence of DENR Secretary Horacio Ramos and DSWD Acting Secretary Celia Capadocia-Yangco.

*For further information >> [GIS DEVELOPMENT](#)*

#### **9. The Earth in 3D - German radar satellite Tandem-X launched successfully**

Germany's second Earth observation satellite, TanDEM-X, was launched successfully on 21 June 2010 from the Baikonur Cosmodrome in Kazakhstan. "TanDEM-X is a key German project and will provide us with a homogeneous 3D elevation model of the Earth which will be an indispensable aid for a great many scientific and commercial avenues of enquiry," said German Aerospace Center (DLR) Chairman Prof. Dr. Wörner at the launch event held in the German Space Operations Center (GSOC) at the DLR site in Oberpfaffenhofen. Digital elevation models can be used in a huge range of applications. Geoscientific disciplines such as hydrology, geology and oceanography require precise and up-to-date information on the properties of the Earth's surface. Digital elevation models can help to make the exploitation of natural resources more efficient and can also help to optimize relief planning in the wake of natural disasters, as well as security deployments.

*For further information >> [DLR](#)*

#### **10. NASA's TRMM satellite provides rainfall estimate for Cyclone Phet**

The Tropical Rainfall Measuring Mission satellite, known as TRMM is a "flying rain gauge" in space, and can provide rainfall estimates from its position in orbit around the Earth. TRMM satellite rainfall data estimated Cyclone Phet's heaviest rainfall (600 or more millimeters/23.6 or more inches) occurred over open waters of the Arabian Sea. One area of northeast Oman received as much as 450 millimetres (17.7 inches), while Pakistan received between 150-300 millimetres/5.9-11.8 inches as Phet made landfall there in the beginning of June.

*For further information >> [EARTH OBSERVATION](#)*

#### **11. NASA demonstrates tsunami prediction system**

NASA has successfully demonstrated for the first time elements of a prototype tsunami prediction system that quickly and accurately assesses large earthquakes and estimates the size of resulting tsunamis. After the magnitude 8.8 Chilean earthquake on Feb. 27, a team led by Y. Tony Song of NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, used real-time data from the agency's Global Differential GPS (GDGPS) network to successfully predict the size of the resulting tsunami. The network, managed by JPL, combines global and

regional real-time data from hundreds of GPS sites and estimates their positions every second. It can detect ground motions as small as a few centimeters.

*For further information >> [NASA](#)*

### **12. First simulation test of CISCAI system a huge success**

In what may be the first-of-a-kind activity where the use of satellite-based communications in tandem with ground-based mobile device reporting of mock Avian Influenza outbreak, the Communication & Information Systems for the Control of Avian Influenza (CISCAI) Project set a landmark simulation table-top exercise in Hanoi, Vietnam on 16 April 2010. The CISCAI system was field tested in terms of the following parameters: the speed at which data from the field was inputted and conveyed electronically/digitally via the CISCAI's Network system, in both mobile hand-held devices and laptop computers; the time it takes for information to be processed and decision made at the central levels of both the National Institute of Hygiene and Epidemiology and the Department of Animal Health; and subsequently how this updated information is displayed in the web-based CISCAI Geographic Information System (GIS). The whole process was benchmarked with the traditional "paper-and-pen" outbreak reporting system, in order to gauge the overall performance of the CISCAI-enabled reporting system.

*For further information >> [CISCAI](#)*

## **Conferences and Workshops**

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](http://www.un-spider.org/events)

### **Symposium: 100 Years ISPRS - Advancing Remote Sensing Science, Vienna, 5-7 July 2010**

The symposium will take place at the Vienna University of Technology at which premises the International Society for Photogrammetry (ISP) was founded by Eduard Dolezal on 4 July 1910. The Society changed its name to the International Society for Photogrammetry and Remote Sensing (ISPRS) in 1980, reflecting the increasing integration of the two disciplines. In our modern digital age, photogrammetry and remote sensing have virtually grown together, having as their common scope the extraction of reliable information from noncontact imaging and other sensor systems about the Earth and its environment, and other physical objects and processes through recording, measuring, analyzing and representation.

*For more information and registration: [ISPRS](#)*

### **9<sup>th</sup> Training Course on Public Health in Complex Emergencies, Bangkok, 12-24 July 2010**

The Public Health in Complex Emergencies training course (PHCE) focuses on critical public health issues faced by personnel working in complex emergencies. The course was initiated in 2004 with aims to enhance the capacity of humanitarian assistance workers and their organizations to respond to the health needs of refugees and internally displaced persons affected by these emergencies.

*For more information and registration: [ADPC](#)*

### **19<sup>th</sup> Regional Learning Workshop on Community Based Disaster Risk Reduction, Bangkok, 19-30 July 2010**

The CBDRR course provides an opportunity for practitioners to learn essential skills and knowledge in community based disaster risk reduction to address implementation challenges in a systematic manner. CBDRR participants acquire tools and obtain knowledge on how to design and implement programs for reducing disaster risks and vulnerability and building community capacity to promote a culture of safety. Through exercises and simulations participants practice risk assessment and risk reduction planning.

*For more information and registration: [ADPC](#)*

### **IGARSS 30<sup>th</sup> Anniversary, Honolulu, 25-30 July 2010**

For this 30<sup>th</sup> anniversary the International Geoscience and Remote Sensing Symposium (IGARSS) will celebrate the accomplishments of over three decades of leadership in remote sensing instrumentation, techniques, and applications development. But perhaps more importantly it will look ahead to the future of the field with some fresh approaches and perspectives through our conference theme: Remote Sensing: Global Vision for Local Action. One such activity will be embodied in the plenary session, which will focus on the emerging field of Community Remote Sensing.

*For more information and registration: [IGARSS](#)*

### **International Symposium and Exhibition on Geoinformation and Map Asia, Kuala Lumpur, 26-28 July 2010**

GIS Development, the organizer of Map Asia, the premier conference in the field of Geospatial Technology in Asia Pacific region is proud to announce that for the first time they have joined hands with the Institution of Surveyors Malaysia (ISM) and organized two mega events together: the International Symposium and Exhibition on Geoinformation 2010 (ISG 2010) and Map Asia 2010. Its theme being Connecting Government & Citizen through Ubiquitous GIS, the aim of the conference and exhibition is to foster the horizontal spread and vertical growth of the geospatial sciences and its benefits for the community at large and to ensure a synergy of efforts so far as discussions and deliberations with academicians, researchers, policy makers and industry representatives are concerned.

*For more information and registration: [ISG](#)*

### **Shanghai Disaster Risk Reduction Forum, Shanghai, 28-30 July 2010**

Among the Shanghai Expo 2010 "Better City, Better Life", a forum focusing on Disaster Risk Reduction will be held. The Forum consists of an exhibit and an international conference. The exhibit by private sector providers consists of technologies applicable to reducing disaster risk, for prevention, early warning and recovery processes related to natural disasters in urban areas. The international conference is a meeting of local authorities within the context of the "Making Cities Resilient" campaign and the Shanghai EXPO 2010.

The main objectives of the Forum will be to:

1. Promote an exchange of practical knowledge related to disaster risk reduction, including preparedness, rehabilitation and reconstruction of urban areas.
2. Facilitate knowledge and information exchange between cities and departments in China and their international homologues in the area of disaster risk reduction.
3. Foster new multi-stakeholder partnerships between community groups, local and national authorities, and public-private sectors, aimed to reduce disaster risk at sub-national levels.

*For more information and registration: [PreventionWeb](#)*

### **5<sup>th</sup> Regional Training Course on GIS for Disaster Management, Bangkok, 16-27 August 2010**

The main objective of the course is to impart knowledge and skills to disaster management practitioners in the use of GIS and spatial data for disaster risk assessment and management. Participants will not only learn how to carry out disaster risk assessment for different hazard types, but also how to use risk information for emergency planning and preparedness.

*For more information: [GIS DEVELOPMENT](#)*

### **Benefiting from Earth Observation - Bridging the Data Gap for Adaptation to Climate Change in the Hindu Kush-Himalayan Region, Kathmandu, 4-6 October 2010**

The main objective of the international symposium is to foster regional and international cooperation to promote the use of and access to earth observation for improved scientific knowledge and understanding for adaptation to climate change in the Hindu Kush-Himalayan region. Besides inaugural and valedictory sessions by prominent speakers, there will be six session themes from scientists, researchers, development practitioners, policy makers and donors from the Hindu Kush-Himalayan region and beyond. The themes are:

- Remote sensing of cryosphere
- Spatial decision support systems for ecosystem management
- Space-based information for disaster management
- Land cover change and Reducing Emissions from Deforestation and Forest Degradation (REDD)
- Transboundary air pollution monitoring
- Spatial data infrastructure for climate change adaptation

For more information and registration: [GeoPortal](#)

## Upcoming UN-SPIDER Outreach Activities

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](http://www.un-spider.org/events)

## Upcoming UN-SPIDER events

### UN-SPIDER Regional Workshop *Building upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa*, Addis Ababa, **NEW DATE: 6-9 July 2010**

Recognizing the fact that the African continent is particularly prone to devastating natural disasters and susceptible to the negative effects of climate change, UN-SPIDER is organising this continental wide workshop aiming at bringing together experts from both the disaster management and the geospatial communities. The regional workshop is intended to further strengthen capacities in Africa to better respond to future disasters by taking advantage of space-based information.

For more information and registration: [UN-SPIDER Events](#)

### Fourth United Nations International UN-SPIDER Bonn Workshop on Disaster Management and Space Technology: *The 4C – Challenge: Communication – Coordination – Cooperation – Capacity Development*, Bonn, 12-14 October 2010

The United Nations Office for Outer Space Affairs (UNOOSA), through its UN-SPIDER Programme (United Nations Platform for Space-based Information for Disaster Management and Emergency Response) together with the German Aerospace Center (DLR) are organizing the above mentioned workshop to promote the access and use of space-based technologies and solutions for disaster management and emergency response within relevant communities. Specifically, this Fourth International Workshop in Bonn will provide an opportunity to bring together decision-makers and experts from both the space technology and disaster management communities, international scientific organizations, knowledge transfer and educational institutions, as well as internationally active private companies, with the intention of sharing their best practices and to bring their knowledge, products and technologies for risk and disaster management, humanitarian aid and emergency response.

Main topics of the fourth workshop will include:

- Space technology in support of risk and disaster management
- Satellite communications technology
- International support mechanisms and SpaceAid
- The UN-SPIDER network

For more information and registration: [UN-SPIDER Events](#)

## Upcoming events supported by UN-SPIDER

### 8<sup>th</sup> International Conference of the African Association of Remote Sensing and the Environment, Addis Ababa, 25-29 October 2010

The four major scientific sub-themes of the conference are:

- Food and water security (mapping production zones, yield forecast, agricultural and pastoral systems, assessing (quality and quantity) of water resources in Africa, surface water body monitoring, seasonal hydrological characteristics assessment, flood forecasting).
- Energy resources (mapping, monitoring and management of energy resources, power infrastructure management, etc.).
- Disaster risk reduction (risk assessment for sustainable development, provision of geo-information on hazards and risks, disaster risk reduction in national policy, strengthening community level capacities to reduce disaster risk at the local level, disaster mitigation, vulnerability to compounded disasters, predicting vulnerability to urbanization and to climate change).
- Marine and coastal management (resources & sustainable development, marine ecosystem, coastal, marine, and oceanography resources management, assimilation, modelling and forecasting: towards ocean and coastal products and services in Africa, quantitative indicators of risk and resilience of coastal populations, impacts of coastal inundation on coastal ecosystems, monitoring and modelling coastal lagoons).

For more information and registration: [AARSE](#)

*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.*