



# UN-SPIDER

## January 2010 Updates

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<http://www.unqiwg.org/cgi-bin/mailman/listinfo/unspider>

### UN-SPIDER News

#### 1. Satellites tasked to aid relief efforts in Haiti

On 12 January 2010, immediately after Haiti was hit by a violent earthquake, UN-SPIDER experts started mobilizing people and resources to provide satellite images for relief efforts on the ground. Within minutes of having being alerted to the disaster UN-SPIDER liaised with colleagues working at the United Nations Stabilization Mission in Haiti (MINUSTAH), who requested the programme to activate the International Charter Space and Major Disasters as well as other existing international mechanisms that facilitate the access to satellite images for emergency response. By alerting partnering satellite operators they were able to take post-disaster images of the impacted area and make them available, free of charge, to relief agencies. Those images could be used by humanitarian relief workers on the ground to identify, for example, accessible roads and suitable areas to set up relief facilities. One of the main vehicles used to support the international relief efforts for Haiti in terms of space-based information was the SpaceAid section of the UN-SPIDER Knowledge Portal. It is there that UN-SPIDER compiles, organizes and disseminates the latest available space-based information, such as images, derived maps and related geospatial data of the affected areas. This information is continuously updated and made available to end users in the field as well as to the general public.

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

#### 2. Technical Advisory Mission to the Dominican Republic

From 26 to 29 January 2010, a Technical Advisory Mission (TAM) was conducted in Santo Domingo, Dominican Republic. The goal of the mission was to assess the capacity of a variety of institutions to access and to use space-based information for disaster-risk management and emergency response and to identify institutional needs. The mission focused on four main topics: capacities to access space-based information and to use Geographical Information Systems; current efforts concerning the implementation of a Spatial Data Infrastructure (SDI), and capacities to conduct training programmes focusing on the use of space-based information. The two UN-SPIDER staff members were supported by an expert from the Venezuelan Space Agency (Agencia Bolivariana para Actividades Espaciales, ABAE) and by an expert from the Water Center for the Humid Tropics of Latin America and the Caribbean (Centro del Agua del Trópico Húmedo para América Latina y el Caribe, CATHALAC). The mission benefitted from the guidance provided by the National Emergency Commission (Comisión Nacional de Emergencias, CNE), the State Secretariat for Foreign Affairs (Secretaría de Estado de Relaciones Exteriores), and the Technological Institute of the Americas (Instituto Tecnológico de las Américas, ITLA).

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

### **3. UN-SPIDER extends helping hand to Gaza following devastating flash floods**

On 21 January 2010, various parts of Gaza witnessed unusually heavy rains and severe flooding, fully swamping some of the region's agricultural lands, cutting off roads, washing away bridges, and forcing hundreds from their homes and farms. In response to this disaster, and at the request of the UNDP and UNOCHA offices covering Gaza, UNOOSA/UN-SPIDER activated the International Charter: Space and Major Disasters and alerted other satellite data providers about this disaster, as well as about the specific needs for post-disaster satellite imagery. Consequently, UNOCHA offered pre-disaster aerial imagery for any imagery-based assessment exercise, and pre and post-event radar satellite images (ALOS/PALSAR, RADARSAT) were soon made available by the Japanese Aerospace Exploration Agency (JAXA) as well as the Canadian Space Agency (CSA), both members of the International Charter. The Ukraine Space Research Institute (NSAU), soon to become a UN-SPIDER Regional Support Office, also offered to analyze and process the available radar images as a value-added provider, to assist any response or recovery efforts. It is worth recalling that this valuable and truly rapid expert support by NSAU was also offered earlier to UN-SPIDER through the Committee on Earth Observation Satellites (CEOS). In addition to the aforementioned radar imagery, acting on the request of UN-SPIDER, DigitalGlobe Inc. also acquired a post-event WorldView image swath, which could be purchased by any end-user directly from the source.

### **4. UN-SPIDER supports workshop to bridge Space Technology and Disaster Management in India**

The workshop on "Space Technology for Disaster Risk Reduction" was held from 11 to 13 January 2010 at the National Institute of Disaster Management (NIDM) of India. In spite of the country's prominence in the domain of space technology and applications, it was still deemed necessary to assess the use and implementation of the latter in disaster management. That need was specifically taken up by the State Disaster Management Authorities (SMDA) who are mainly responsible for implementing the policy guidelines provided by the central Government of India. This workshop set up the stage for experts from the Indian Space Research Organization (ISRO), NIDM, UN-SPIDER as well as other disaster management authorities to extensively share their experiences and knowledge on Remote Sensing and GIS for disaster management. Various recommendations crowned the workshop discussions, addressing state-level policy interventions that are needed for capacity development and access to space-based and geo-information, and touching upon the need for effective data sharing in order to utilize that geo-information for disaster management purposes. The importance of circulating these recommendations amongst state authorities was also noted. Finally, the workshop yielded a virtual community (e-group), created by the NIDM, directly connected to the ISRO Disaster Management System, and where UN-SPIDER will be able to provide constant updates on recent advances in the use of space-based technology for disaster management.

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### **5. The United Nations General Assembly recognises UN-SPIDER contribution**

The United Nations General Assembly in its resolution 64/251 on the "International cooperation on humanitarian assistance in the field of natural disasters, from relief to development" recognises the contribution of the UN-SPIDER Programme to humanitarian assistance, specifically stating that the further use of space-based remote sensing technologies, as provided by UN-SPIDER, should be encouraged and inviting Member States to continue to provide their support to the consolidation of the United Nations capability in the area of satellite-derived geographical information for early warning, preparedness, response and early recovery.

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

### **6. COPUOS S&T to consider UN-SPIDER Progress and Planned Activities**

During the upcoming forty-seventh session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS), delegates will consider the progress of the implementation of the UN-SPIDER Programme under the agenda item on "Disaster Management Support". UN-SPIDER has organised two side meetings: On February 9, 13:00 to 18:00, the UN-SPIDER Regional Support Offices Meeting will bring together representatives of the current and planned RSOs. The UN-SPIDER Stakeholders Meeting on February 10, 13:30 to 15:00, will be open to all delegates interested in learning about UN-SPIDER activities. Reports on UN-SPIDER activities carried out in 2009 can be downloaded from the UN-SPIDER webpage.

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

## Community News

### **7. The Democratic Republic of the Congo Receives Help from Space after Volcano Eruption**

On 2 January, Mount Nyamulagira in the Democratic Republic of the Congo erupted, spewing lava from its southern flank and raising concerns that the 100.000 people in the town of Sake could be under threat. Following the eruption, scientists and local authorities have been using a long series of space images from ESA's Envisat, together with seismic and helicopter-collected data, to monitor the situation and calm fears of the local population. The satellite images are providing invaluable information about the situation, such as the details about the lava flow and the fact that the nearby Nyiragongo volcano is not showing any signs of abnormal activity.

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

### **8. Rochester Institute of Technology captures Haiti disaster with high-tech imaging system**

In the aftermath of the 12 January earthquake that struck Haiti's capital, Port-au-Prince, scientists from the Rochester Institute of Technology are sweeping the levelled city with high-tech imaging systems integrated into a small aircraft. Funded by the World Bank, and in collaboration with ImageCat Inc., the five-day flight is meticulously mapping the disaster zone to aid in crisis management and eventual reconstruction of the city. The twin engine Piper Navajo, operated by Kucera International, an Ohio-based aerial mapping company, is flying from Aguadilla, Puerto Rico, and refuelling daily in the Dominican Republic. The plane flies at 3,000 feet over Port-au-Prince and other areas badly hit by the earthquake.

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

### **9. DLR scientists support relief workers in Haiti earthquake disaster**

Following the devastating earthquake on Haiti, scientists from the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) are giving important support to relief organization on the ground in Haiti by providing free access to maps of the crisis region based on satellite data. At the moment, the researchers are focusing particularly on Port-au-Prince, the capital of the Caribbean island state, which has been particularly badly affected. Under the International Charter Space and Major Disasters, ZKI makes available satellite data, particularly those from the TerraSAR-X satellite developed and operated by DLR, in crisis situations in Germany and worldwide, analyses satellite data and performs additional functions such as those of the coordinating Project Manager.

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

### **10. ESRI assists Haiti earthquake response**

ESRI is working closely with the Geographic Information Systems (GIS) community and agencies responding to the Haiti earthquake by providing software, technical support, GIS data, and personnel. In the immediate aftermath of the earthquake - characterized as one of the worst natural disasters ever in the Western Hemisphere – the use of GIS is assisting in identifying areas of extreme damage, impacts to critical infrastructure, areas suitable for food and water distribution, and more. It gives officials critical information used for making all types of decisions. As aid and rescue workers pour into Port-au-Prince and other regions, GIS is playing an essential role in the assessment of priorities to get resources and people to the most critical areas.

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

### **11. NASA airborne radar to study quake faults in Haiti and the Dominican Republic**

In response to the disaster in Haiti on 12 January, NASA has added a series of scientific overflights of earthquake faults in Haiti and the Dominican Republic to a previously scheduled three-week airborne radar campaign to Central America. NASA's Uninhabited Aerial Vehicle Synthetic Aperture Radar, or UAVSAR, has unique observational capabilities that will aim at studying geologic processes in Hispaniola following the earthquake. UAVSAR's ability to provide rapid access to regions of interest, short repeat flight intervals, high resolution, and its variable viewing geometry make it a powerful tool for studying ongoing Earth processes. It is believed that these upcoming flights, and others that NASA will conduct in the future, will help scientists better assess the geophysical processes associated with earthquakes along large faults and better understand the risks.

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

## 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:

<http://www.google.com/calendar/embed?src=h1a93vb3rk6ud1tvrequisfk8s%40group.calendar.google.com>

### **International Training Course on *Application of Space Technology for Disaster Management Support with Emphasis on Geological Risk Management*, 12 April – 07 May, 2010 - Dehradun, India**

The course will take place from 12 April until 07 May, the venue is the Indian Institute for Remote Sensing, Dehradun, India, and is organized by the UN-affiliated CSSTEAP, the Indian Institute of Remote Sensing, and ITC.

For more information: [CSSTEAP](#)

### **The MRSS 6<sup>th</sup> International Remote Sensing & GIS Conference and Exhibition 2010, 28-29 April, Kuala Lumpur, Malaysia**

The Malaysian Remote Sensing Society (MRSS) and University Putra Malaysia are jointly organizing the MRSS 6th International Remote Sensing & GIS Conference and Exhibition. The main objective of this MRSS 2010 conference is to bring together local and international experts in geospatial technologies, both from the government and private sectors to disseminate knowledge and to share their expertise and experiences in present and future applications and development of RS/GIS/GPS.

For more information: [MRSS2010](#)

### **2010 IEEE *International Geoscience and Remote Sensing Symposium* – IGARSS 2010, 25- 30 July - Honolulu, Hawaii, USA**

For this 30th anniversary IGARSS we will celebrate our accomplishments over three decades of leadership in remote sensing instrumentation, techniques, and applications development. But perhaps more importantly we will look ahead to the future of our field with some fresh approaches and perspectives through our conference theme: Remote Sensing: Global Vision for Local Action. Participation in IGARSS is open to all individuals interested in or working in the fields of geoscience and remote sensing.

For more information and registration: [IGARSS2010](#)

### **International Interdisciplinary CODATA Workshop on RISK Models and Applications Berlin, Germany, 26-27 August, 2010**

This international interdisciplinary CODATA workshop on Risk Models and Applications will enable sharing of best practices as well as giving space for discussing methodological problems in risk modeling from the information systems point of view.

For more information and registration: [RMA2010](#)

## Upcoming UN-SPIDER Outreach Activities

Information on upcoming UN-SPIDER planned can be obtained from the outreach activities section of the UN-SPIDER webpage:

<http://www.unoosa.org/oosa/en/unspider/workshops.html>

## Upcoming UN-SPIDER Events

### **UN-SPIDER Regional Workshop "Building upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa", 25-28 May 2010, Addis Ababa, Ethiopia**

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. Information on this workshop will be sent out during the second week of February.

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

## Upcoming Events Supported by UN-SPIDER

### **Fourth Central Asia GIS Conference - GISCA 2010: Water: Life, Risk, Energy and Landuse, 27-28 May 2010, Bishkek, Kyrgyz Republic**

The conference committee is inviting all those interested to submit scientific papers on the stated conference themes with a focus on the Central Asian Region by 1 March 2010. UNOOSA supported the previous GIS Conference in 2009 and will again provide support in 2010 recognizing this event as the major Geospatial Conference in Central Asia. It will be an opportunity to meet with experts interested in working together in Central Asia. UNOOSA will also be providing funding support to cover travel costs for selected papers that focus on space-based information for disaster management.

For more information and registration: [GISCA10](#)

*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.*