



UN-SPIDER

December 2010 Updates

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UN-SPIDER News

1. SpaceAid supporting earthquake response in Iran

Southeastern Iran was hit by a 6.5-magnitude earthquake on 20 December. The SAFER mechanism was activated through UNOOSA/UN-SPIDER, with support from WFP, based on a request from the UN-SPIDER Regional Support Office in Iran. A comparison between archived satellite images and the post-event imagery collected has been produced in the SAFER framework. No obvious damage was detected within the Area of Interest (AOI) provided, covering the Nematabad area, and therefore no further damage map was produced.

For further information >> [SpaceAid Iran](#)

UN-SPIDER in 2010

2. Five new Regional Support Offices

In the course of 2010, the UN-SPIDER network of Regional Support Offices (RSO) grew by five: the first to join were the Space and Upper Atmosphere Research Commission (SUPARCO) of Pakistan and the Space Research Institute of the National Academy of Sciences of Ukraine with the National Space Agency of Ukraine (SRI NASU-NSAU) during the 47th Scientific and Technical Subcommittee sessions on 12 February 2010. CATHALAC, the Panama-based Water Center for the Humid Tropics of Latin America and the Caribbean, followed in April as the first RSO on the American continent. On the occasion of the UN-SPIDER Regional Workshop – “Building Upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa” in Addis Ababa in July 2010, the Regional Center for Mapping of Resources for Development (RCMRD) also signed the RSO cooperation agreement with the U.N. Office of Outer Space Affairs (UNOOSA). Finally, on 8 October 2010 the University of the West Indies (UWI) from Trinidad and Tobago and UNOOSA signed the cooperation agreement that established the tenth UN-SPIDER Regional Support Office (RSO).

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

3. Technical Advisory Missions to seven countries

In 2010, UN-SPIDER carried out Technical Advisory Missions (TAM) to the Dominican Republic, Haiti, Chile, Maldives, Guatemala, Madagascar and Malawi. A short Technical Advisory Mission to meet disaster management institutions and stakeholders was carried out in India. TAMs are conducted at the request of the government of the respective country. They generally include visits to a variety of government institutions and other relevant entities, with the goal of identifying strengths and weaknesses regarding access to and use of space-based information in all phases of the disaster management cycle. Through a review of existing institutional policies, strategies, and past and ongoing activities by these institutions, the team of experts deduces a set of recommendations that will allow the respective country to improve and to institutionalize its capacity to use space-based information to respond to disasters and to be better prepared. In addition to the missions carried out to the above mentioned countries, UN-SPIDER also followed up with the institutions it has delivered technical advisory support to in previous years.

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

4. Supporting disaster response through the SpaceAid Framework

In the past twelve months UN-SPIDER through its SpaceAid Framework supported disaster response efforts of States and the international community for thirty times. The support ranged from supporting coordination between stakeholders to concrete data delivery on hard drives. The majority of disasters covered were floods (15 cases), followed by earthquakes (six), and severe storms (also six).

For further information >> [SpaceAid](#)



5. Outreach activities and capacity-building

A number of workshops, special sessions, and expert meetings were organized either by UNOOSA/UN-SPIDER or with the support of the Programme. Already a fixed date in the calendar is the annual UN-SPIDER Workshop in Bonn, Germany, in October. Regional Workshops and other meetings focusing on different topics were held in the following cities as well: UN-SPIDER Regional Workshop "Building Upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa" in Addis Ababa, Ethiopia, in July, a Special Session of the SPIDER Thematic Partnership for Latin America and the Caribbean: "Space-based Applications for Managing Risk Reduction and Emergency Response in Latin America and the Caribbean" during the 2nd Hemispheric Encounter of Santa Marta, Colombia, in April, a pre-symposium workshop on "Space based

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information for disaster preparedness and risk management” before the International Symposium on “Benefiting from Earth Observation” in Kathmandu, Nepal, in October, and an Expert Meeting on “Incorporating Space-based Information and Technology into Disaster Risk Reduction and Climate Change Adaption” during the 4th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) in Incheon, Korea, also in October.

A number of training events were supported by UN-SPIDER, such as “Geoinformation Systems and Disaster Management - From Concepts to Applications” in New Delhi, India, conducted by the National Institute for Disaster Management and with support from UN-SPIDER in January. In March, a training course on “Rapid Mapping and communication support within disaster management” was conducted by the German Aerospace Center (DLR) in cooperation with the Center for Geoinformatics (Z-GIS) of the University of Salzburg at Oberpfaffenhofen, Germany. UN-SPIDER provided travel support for two participants from Jamaica and Togo to attend this training event. To name only one more example, UN-SPIDER supported the 5th ISPRS Student Consortium and Summer School in November in Hanoi by providing travel support to one lecturer from Ukraine.

6. Knowledge Management and the Knowledge Portal

The acquisition, processing and transfer of knowledge should be seen as central to the success of UN-SPIDER’s mission. By building a knowledge base on how space-based information and solutions can support risk and disaster management and emergency response, knowledge can be made available through a knowledge portal and be used to support capacity-building. Throughout 2010, the Knowledge Portal technical development and components implementation continued, just as new content was constantly added.

UN-SPIDER staff also contributed to the development and publication of the new booklet “Geoinformation for Disaster and Risk Management - Best Practices and Examples” published by the Joint Board of Geospatial Information Societies (JBGIS) and the U.N. Office for Outer Space Affairs. This booklet outlines the potential uses of geo-information technologies, including earth observation, to reduce the impact of natural or manmade disasters and risks. It brought together concise scientific contributions and knowledge from experts around the world for decision support. The booklet can be downloaded from UN-SPIDER’s Knowledge Portal (<http://www.un-spider.org/jbgis-unoosa-booklet>).

Community News

7. Sentinel Asia observed floods in Sri Lanka

In December, Sentinel Asia has observed flash floods in Sri Lanka and provided imagery through its Web GIS service.

For further information >> [Sentinel Asia](#)

8. International Charter Space and Major Disasters activated four times

The International Charter Space and Major Disasters accepted four activations in the month of December, three of them covering floods and landslides in Latin America (Venezuela, Colombia, Panama), and one supporting the response to forest fires in Israel. Available image products are also published on the Charter website.

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

9. (in Spanish only) CATHALAC presenta avances del mapa centroamericano de cobertura y uso de la tierra

CATHALAC organizó el taller de “Seguimiento a las Actividades y Verificación de avances del Mapa Regional de Cobertura y Uso de la Tierra” para compartir el material generado para el Mapa. El taller se realizó en el marco del Programa Regional de Reducción de la Vulnerabilidad y Degradación Ambiental – PREVDA, dentro del cual se ejecuta el Proyecto Regional “Implementación de la Plataforma Geográfica e Hidrometeorológica Integrada de la Región Centroamericana y sus Aplicaciones Prácticas”, que ejecuta el Consorcio CATHALAC/SIMEPAR. Esta actividad se realizó con el fin de obtener retroalimentación de los especialistas regionales al someter a su consideración, los resultados preliminares del “Mapa Centroamericano Actualizado de Cobertura y Uso de la Tierra /Cambios de Uso de la Tierra” y la definición de las 16 Categorías de cobertura y uso. En el taller participaron representantes de universidades, protección civil y de los ministerios de ambiente de Belice, Guatemala, El Salvador, Honduras y Nicaragua, además de la Unidad de Gestión de Riesgo (UGR), la Comisión Centroamericana de Ambiente y Desarrollo (CCAD) y el Centro de Agua del Trópico Húmedo para América Latina y El Caribe (CATHALAC).

For further information >> [CATHALAC](#)

10. South Africa's Satellite 'leads the way'; new Space Agency established

South Africa's micro-satellite, SumbandilaSat, is living up to its Venda name as it "leads the way" in providing free, frequent high-resolution images capable of revolutionising local earth observation in various fields. During August and September, SumbandilaSat produced five high-resolution images of the south-western part of the Kruger National Park and neighbouring Bushbuckridge, where the Council for Scientific and Industrial Research (CSIR) and SA National Parks (SANParks) are conducting various research projects. These images would have cost over R40.000 each from a commercially operated satellite, but SumbandilaSat is able to deliver such images, each covering an area of 50 by 60 kilometres, to local projects at no cost. So far, the satellite has delivered 800 images of targets worldwide, of which approximately 54% have been cloud-free – translating to four images on average per day. Three to five images of southern African targets can be captured per week.

For further information >> [SouthAfrica.info](#)

South Africa's newly-launched **National Space Agency** will coordinate the country's major space projects, promote space science research, develop related engineering and technological capacity, and devise and implement a national space programme. South Africa has some of the best space infrastructure in Africa, and is already heading some notable space projects, including also Africa's bid to host the Square Kilometre Array, the Southern African Large Telescope. The South African Space Agency (**SANSA**) will become the umbrella body that coordinates all such projects while integrating the country's existing science and technology institutions, such as the Satellite Applications Centre of the Council for Scientific and Industrial Research at Hartebeesthoek.

For further information >> [South Africa.info](#), [Times Live](#)

11. Nigerian Government gains N44 million from sale of satellite images

Nigeria has generated about £175,000 (N44 million) as satellite monitoring royalties from the Nigeria Sat-1 in orbit, through the supply of imagery capturing and imagery analysis services to other countries. Mohammed Abubakar, Minister of science and technology, while corroborating the claim of the NARSDA head, said that space programme is no longer an exclusive venture reserved for certain nations, but has now become an open playing field with opportunities for all nations of the world to explore and to exploit, stressing that "space industry in the world constitutes one of the major economic sectors contributing substantially to income and employment." The minister said the huge gains and advantages from space exploration, including its spin-off benefits, have so deeply integrated space technology into everyday life that modern society cannot function efficiently without it. Today, the products and services of space technology are employed in virtually every facet of our day-to-day living such as weather monitoring, telecommunications, environmental and water resources management, search and rescue, disaster management, national security, medicine, etc.

For further information >> [234next](#)

12. DST of South Africa moots Centres of Competence in optronics and Synthetic Aperture Radar

The Department of Science and Technology (DST) plans to establish centres of competence (CoC) in optronics and synthetic aperture radar (SAR) to support South Africa's future space programme. Minister of Science and Technology Naledi Pandor made the announcement at the launch of the South African Space Agency (SANSA) and National Space Strategy last week. Pandor continued that the National Space Strategy would promote research in the areas of astronomy, earth observation, communications, navigation and space physics. Emphasis would be placed on encouraging space science research and development, she added in comments carried by the state BuaNews agency. The focus on SANSA will fall on the themes of earth observation, space operations, science and engineering, human capital development, science advancement and public engagement, he added. "That makes it an ideal tool for disaster management. It is also ideal for early prediction of crop yields. It really should be used more because we could save millions by recognising when yields are going to be poor and buying early. Radar is also one of the most important weather prediction tools. Using scatterometers, we can measure the strength and direction of surface winds and the height of ocean waves."

For further information >> [defenceWeb](#)

13. China All Access develops emergency satellite mobile command centre system

Considering the new situations and demand in emergency communication faced by public security and fire departments in fire disaster sites, a company called China All Access developed the Emergency Satellite Mobile Command Centre System. The system is well recognized by the fire departments in China. The Emergency Satellite Mobile Command Centre System has been successfully delivered and applied in fire departments recently in various provinces and cities such as Beijing, Guangdong, Jiangsu and Liaoning.

For further information >> [PR Newswire](#)

14. India catching up fast with latest technology to tackle disasters

A series of crises in the 2000s--the Gujarat earthquake of 2001, the tsunami of 2004, the terror attack on Mumbai in 2008--served to propel disaster management in India to a higher level. The Disaster Management Act of 2005 proposed setting up a national authority, which, in turn, has made the use of technology in managing emergencies widespread. "None of the technologies you need at any stage are rocket science," says Raghu Raman, an expert on homeland security and a columnist. "They have all been around for a while, right from satellite phones to thermal imaging. The trouble was always deployment." But India has caught on. One of the most critical technologies needed in every stage from assessment to recovery is remote sensing - gathering data about an object without physical contact. Here is where the Indian Remote Sensing (IRS) satellite programme comes in.

For further information >> [TMCnet](#)

15. Geospatial World Forum 2011- 'Dimensions and Directions of Geospatial Industry'

Geospatial science has carved a niche for itself within not only the technology circle and decision makers, but with a number of new user segments as well. Studies have indicated how geospatial has led to substantial savings of cost and time and yet yield higher productivity in various application segments. The multitude of case studies of innovative usage of this technology from nooks and corners of the world indicates a healthy growth and eager acceptance of geospatial by various nations. The conference shall enable technologists to present a look into what the future holds for the decision makers and users alike in terms of usage and applications of this technology.

For further information >> [Geospatial World Forum 2011](#)

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

Upcoming events supported by UN-SPIDER

34th International Symposium on Remote Sensing of Environment: "The GEOSS Era: Towards Operational Environmental Monitoring", Sydney, 10-15 April 2011

The Organizing Committee of the 34th International Symposium for Remote Sensing of the Environment (ISRSE) cordially invites you to visit Sydney and participate in what promises to be an excellent high quality Symposium on Remote Sensing of the Environment. ISRSE has become one of the main forums for programmatic discussions on remote sensing components of the 'Global Earth Observation system of Systems- GEOSS', currently being implemented through the Group on Earth Observation GEO, which (at the time of preparation) is composed of 80 member countries, 58 participating organizations and 5 observers. The Symposium will provide a platform for countries with established and emerging earth observation programs to report on their progress, as well as new initiatives in the remote sensing arena. As well, the 10-year Implementation Plan of the Group on Earth Observation (GEO) is well underway and therefore the Symposium provides an important opportunity for GEO members and task teams to present details of progress of their work. UNOOSA/UN-SPIDER will be attending and plans to organize a joint session with Sentinel Asia.

For more information and registration: [ISRSE34](#)

Gi4DM 2011 – Geoinformation for Disaster Management, Antalya, 3-8 May 2011

Geomatics technologies are able to support management and recovery in the aftermath of manmade and natural disasters. However, disaster management also poses big challenges in all aspects of the geo-information cycle, from data acquisition, processing, management and delivery. For the seventh time, the International Symposium on Geo-information for Disaster Management (Gi4DM) brings together researchers, developers, data providers and users from all over the world to discuss these challenges. The Gi4DM is coordinated by the ISPRS Ad hoc Committee on Risk and Disaster Management, Working Group 1 (Disaster) of the ISPRS Commission VIII (Remote Sensing and Policies) and Working Group 8 (3D Spatial Data Integration for Disaster Management and Environmental Monitoring) of the ISPRS Commission IV (Geodatabases and Digital Mapping). The indicative topics of interest will at least cover the fields of enterprise crisis management, public security and crisis management in city development, geo-information systems for disaster management, industrial crisis management, incident management systems, etc. The following themes are for reference:

- User Requirements

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- Monitoring and processing
- Early Warning systems
- Early Impact systems
- Spatial Data Infrastructures

For more information and registration: [Gi4DM](#)

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

*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.*

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