



## SEPTEMBER 2012 UPDATES

### UN-SPIDER AT A GLANCE

#### **UN-SPIDER Newsletter “Crowdsourcing Mapping”**

The latest issue of the UN-SPIDER Newsletter focusing on “Crowdsourcing Mapping” is now available on the Knowledge Portal. Crowdsourcing Mapping aims at an improved disaster management: The idea is to collect data from as many on-site sources as possible and translate that real-time data into maps. Being aware of the surrounding and the infrastructure, locals can render accurate geo-referenced information or comment on existing data and thereby help disaster managers expand the information they need for emergency operations. That is of course not only true for on-going disasters, but also for risk assessment and preparedness efforts. This Newsletter aims to shed light on the opportunities of Crowdsourcing Mapping for disaster and risk management, introduces some of its key players and presents lessons learnt from a simulation mapping exercise.

Read more and download: [Knowledge Portal](#)

#### **UNOOSA: Brochure on United Nations Programme on Space Applications**

The United Nations Office for Outer Space Affairs released a brochure on the United Nations Programme on Space Applications. The Programme on Space Applications (PSA), since its creation in 1971, has made substantial progress in furthering knowledge and experience of space applications around the world. Provision of country capacity-building, education, research and development support and technical advisory services by the Programme have all helped to reduce the gap between the industrialized and developing countries. Much more, however, remains to be accomplished. The Mission of the Programme is to enhance the understanding and subsequent use of space technology for peaceful purposes in general, and for national development, in particular, in response to expressed needs in different geographic regions of the world.

Read more and download: [Knowledge Portal](#)

#### **UN-SPIDER partners support coordination for earthquake in China**

Multiple earthquakes, with the strongest two measuring 5.7 and 5.6 on the Richter scale, struck the mountainous rural regions of Yunnan and Guizhou, in the Yiliang and Weining counties in southwest China on Friday 7 September 2012, killing at least 80 people and injuring more than 160 others. As a result of the earthquakes in this mountainous area, landslides have also been experienced. The UN-SPIDER Beijing office immediately activated its network to task high resolution satellite imagery of the regions affected by the earthquakes via the Cartosat-1 satellite of the Indian Space Research Organisation (ISRO) and via DigitalGlobe. DigitalGlobe provided UN-SPIDER with a DigitalGlobe Cloud Services (DGCS) evaluation account. A total of 56 scenes to assess earthquake impact on day 1 and 2 after the event were provided to China via UN-SPIDER's ftp server. Thematic maps are available on the UN-SPIDER Knowledge Portal.

Read more: [Knowledge Portal](#)





### NEWS FROM OUR REGIONAL SUPPORT OFFICES

#### **CATHALAC: Flooding in Haiti and the Dominican Republic mapped**

UN-SPIDER's Regional Support Office in Panama, CATHALAC (Water Center for the Humid Tropics of Latin America and the Caribbean), conducted a satellite-based analysis of floodings caused by lakes Azuei in Haiti and Enriquillo in the Dominican Republic. Based on Landsat-7 imagery captured on August 31, 2012 and September 16, 2012, this analysis indicates that the area of Lake Azuei has expanded by some 14.4%, to 13,369 hectares, while Lake Enriquillo has expanded by some 62.2%, to 33,280 hectares.

Read more: [Knowledge Portal](#)

#### **CATHALAC: Support after Guatemala Volcano Eruption**

On 13 September 2012, Guatemala's Fuego volcano erupted strongly, forcing the declaration of an institutional "Orange Alert" and the evacuation of more than 10,000 inhabitants from communities located on the foothills of the volcano. UN-SPIDER's RSO CATHALAC quickly reacted to this eruption and published, in the context of SERVIR, a preliminary analysis using NASA MODIS satellite imagery, NOAA GOES data as well as prognostics on winds and further volcanic activities. Additionally, via CATHALAC's GeoViewer, several pre- and post-disaster images were made available tracking the development of the ash cloud covering 89,460 hectares of land. Experts say this eruption of the Fuego, 50km south-west of Guatemala City, was the biggest since 1999.

Read more: [Knowledge Portal](#)

#### **Argentina: CONAE becomes Regional Support Office**

The Argentina National Space Activities Commission (CONAE) became UN-SPIDER's most recent Regional Support Office (RSO) after CONAE and UNOOSA had signed a cooperation agreement. CONAE has been promoting the use of space-based information within Argentina and in Latin America for a variety of purposes and has been supporting UN-SPIDER in activities conducted in Latin America and the Caribbean. As a member of the International Charter: Space and Major Disasters, CONAE has supported emergency response efforts in many countries of the region. As an RSO, CONAE continues to provide experts for UN-SPIDER's technical advisory support to countries within the region and contributes to capacity building efforts.

Read more: [Knowledge Portal](#)

#### **Ukraine: Sich-2 Data for Cameroon Floods**

UN-SPIDER's Regional Support Office in Ukraine (Space Research Institute NASU-NSAU) supported the relief efforts following the September 2012 floods in northern Cameroon by providing flood maps. Subsequently, the International Charter "Space and Major Disasters" was activated to acquire satellite images over the affected regions. In the context of this activation, NASU-NSAU, the State Space Agency of Ukraine, the Center of the Special Information Receiving and Processing and the Navigating Field Control coordinated their efforts in order to acquire images from the Ukrainian remote sensing satellite Sich-2 and deliver flood maps.

Read more: [Knowledge Portal](#)

#### **IGAC: Remote Sensing Techniques to analyse Landslide Susceptibility**

UN-SPIDER's Regional Support Office in Colombia, the Agustin Codazzi Geographic Institute (IGAC), is currently researching the application of Remote Sensing techniques and digital image processing to support the generation of geomorphological information and the location and mapping of critical areas for landslides in Colombia. The project looks at Digital Elevation Models, stereo models, improvements and enhancements using SPOT 5, Rapid Eye, UltraCam-Vexcel and Radarsat-2 sensors. Large parts of Colombia have a high susceptibility to landslides of high impact and frequency due to its geographical, geological and geomorphological characteristics among others.

Read more: [Knowledge Portal](#)

#### **SUPARCO: Report on Rapid Crop Damage Assessment**

UN-SPIDER's Regional Support Office in Pakistan - SUPARCO - published a report on Rapid Crop Damage Assessment in Pakistan for 2011. It is the third of its kind, two previous reports focused on rapid crop damage assessment in 2010. Pakistan experienced devastating floods during 2010 and 2011 which affected the agricultural sector on a large scale. SUPARCO, the National Space Agency of Pakistan and FAO in the past years have already collaborated and demonstrated the expediency of satellite and ground based techniques, algorithms and procedures to estimate the area, yield and production of the crops.

Read more and download reports: [Knowledge Portal](#)





### NEWS FROM OUR COMMUNITY

#### **International Charter strengthens its contribution to disaster management worldwide**

Building on a decade of success in making satellite data available to users for disaster response, the International Charter is now opening its doors even wider. To do this, the Charter Members have adopted the principle of Universal Access: Any national disaster management authority will be able to submit requests to the Charter for emergency response. Proper procedures will have to be followed, but the affected country will not have to be a Charter member. The Charter has arrangements with the UN Office of Outer Space Affairs (UNOOSA) and the Operational Satellite Applications Program of the UN Institute for Training and Research (UNITAR/UNOSAT) to provide support to UN agencies. This agreement allows UN relief agencies to submit a request in case of a humanitarian emergency caused by a major disaster caused by natural or technological hazards, in any part of the world.

Read more: [Knowledge Portal](#)

#### **International Charter activated seven times in September**

The International Charter: Space and Major Disasters was activated seven times in September 2012 to provide satellite imagery and maps. The mechanism was triggered for floods in Cameroon, Pakistan, South Sudan and Nigeria, for floods and landslides in India, for fires in Ecuador and for a major earthquake in China.

Read more: [Disaster Charter](#)

#### **SPOT 6 Satellite launched**

Astrium's SPOT 6 was placed in orbit by an Indian PSLV rocket from the Sriharikota launch base on 9 September 2012. This satellite will assure continuity of data from the series of satellites operating since 1986, along with many technological innovations. Its unique responsiveness and acquisition capacity are set to benefit a broad spectrum of operational applications. These first images present very varied landscapes, highlighting SPOT 6's potential for applications like urban and natural resource mapping or agricultural and environmental monitoring. Astrium Services posted the first images from the SPOT 6 satellite on 13 September.

Read more: [Knowledge Portal](#)

#### **UN Report stresses Importance of Technologies for Disaster Risk Reduction**

On 20 September 2012, the United Nations Secretariat published the "2012 MDG Gap Task Force Report". The report stresses the importance of accessibility of new technologies for disaster risk reduction: "Affordable access to new technologies for climate change mitigation and adaptation and disaster risk management have also become pressing priorities. (...) Making further progress in reducing and managing risk will require, inter alia, better and more systematic recording of disaster losses and impacts, and the institutionalization of national disaster inventory systems." The MDG Gap Task Force was created by the Secretary-General of the United Nations in May 2007 to improve monitoring of the global commitments contained in MDG 8, the Global Partnership for Development.

Read more: [Knowledge Portal](#)

#### **MetOp-B weather satellite launched**

The second Metop satellite was launched on 17 October 2012 from the Baikonur cosmodrome, in Kazakhstan, atop a Russian Soyuz launcher. Metop-B will ensure the continuity of the weather and atmospheric monitoring service provided by its predecessor Metop-A, which has been circling the globe from pole to pole, 14 times a day, since 2006 and has now exceeded its design lifetime. Beyond weather monitoring, the Metop and Meteosat satellites are part of ESA's effort on climate watch, which includes the experimental Earth Explorer satellites, to probe Earth and its atmosphere. Metop-B, developed for EUMETSAT's polar satellite system, is now under the control of ESA's Operations Centre in Darmstadt, Germany.

Read more: [Knowledge Portal](#)

#### **USGS: Over 9 million downloads of free Landsat data**

The use of Landsat data has exploded since the United States Geological Survey (USGS) began distributing the data at no cost via the internet. In the best sales year, around 25,000 images were sold. The Landsat project has now exceeded that number in a single day. In fact, the 9 millionth image was distributed on September 1, 2012. There are several ways to access free Landsat data for example via the USGS LandsatLook Viewer or the USGS Global Visualization Viewer.

Read more: [Knowledge Portal](#)







### **NASA satellites show “hot towers” of Hurricane Isaac**

Two hours before Hurricane Isaac made landfall on 28 August 2012, a satellite orbiting hundreds of kilometres above the storm used a radar instrument to map its inner structure. The instrument on the Tropical Rainfall Measuring Mission (TRMM) observed two extremely tall complexes of thunderheads called hot towers in the eyewall, a sign that the storm was strengthening. The towering thunderheads were so high that they punched past the troposphere (the lowest layer of the atmosphere where most weather occurs) and sent water vapor rushing into the stratosphere, a higher layer that normally contains very little moisture.

Read more: [Knowledge Portal](#)

## UPCOMING EVENTS

### **China SatNav Conference calls for papers**

The fourth China Satellite Navigation Conference (CSNC 2013) has launched a call for papers to be presented at the conference taking place from 15 to 17 May, 2013 in Wuhan, China. The theme of CSNC 2013 is: “BeiDou Application - Opportunities and Challenges”. It will incorporate a wide range of activities, such as academic exchange, high-end forum, exhibition as well as science popularization. The deadline for submitting abstracts is 31 October 2012, the full papers are due on 20 December 2012. A template for the papers and additional information on the event are available on the CSNC conference website.

Read more and apply: [Beidou.org](#)

### **United Nations International Expert Meeting on Crowdsourcing Mapping for Disaster Risk Management and Emergency Response**

The deadline for application to this expert meeting is **19 October 2012**. This Expert Meeting will bring together leading experts representing crowd-sourcing communities, space agencies, disaster management and civil protection agencies, NGOs, private companies, and regional and international organizations. Taking place from 3 to 5 December 2012 in Vienna, the event aims to help building a tighter cooperation and further understanding among all communities involved, building upon the recommendations and conclusions of two previous meetings in 2011.

Read more: and apply: [Knowledge Portal](#)

### **United Nations Symposium on Space Weather Data Analysis in Graz**

The United Nations held a Symposium on Data Analysis and Image Processing for Space Applications and Sustainable Development: Space Weather in Graz, Austria, from 18 to 21 September 2012. This was the first event in a new series of annual symposia that addressed the use of space-derived data analysis and image processing tools in support of sustainable development. Space Weather data is a timely topic in light of the predicted maximum solar activity during the 2012-2013, and the impact that it could have globally.

Read more: [Knowledge Portal](#)

### **“Risk Assessment in the Context of Global Climate Change” - United Nations International Conference on Space-based Technologies for Disaster Management**

The application period to the United Nations International Conference on Space-based Technologies for Disaster Management - “Risk Assessment in the Context of Global Climate Change” will end on **15 October 2012**. The event scheduled to take place from 7 to 9 December 2012 in Beijing is organized by the United Nations Office for Outer Space Affairs (UNOOSA) and the Ministry of Civil Affairs of the People’s Republic of China. The aim of the conference is to offer a forum for disaster management communities and experts to strengthen their capabilities in using space-based information to assess, monitor and respond to climate change related disaster risks and integrate space technology into long-term disaster risk reduction efforts.

Read more and apply: [Knowledge Portal](#)