



DECEMBER 2013 UPDATES



The UN-SPIDER team wishes you a very happy and successful new year! We thank all of our partners and our community for the fruitful cooperation and their support in 2013.

UN-SPIDER at a glance

Call for Experts: Join our Technical Advisory Mission to Kenya

At the invitation of the Government of Kenya, the UN-SPIDER Programme will conduct a Technical Advisory Mission (TAM) to Kenya from 3 to 7 March 2014. UN-SPIDER is currently seeking international experts who would like to volunteer to participate in this TAM. We are looking for four to six experts from outside of Kenya in various areas of disaster-preparedness as well as the use of space-technology, such as disaster response experts, spatial data infrastructure experts or policy analysts with experience in the use of space-based information. Preference will be given to experts who are either already collaborating or who are willing to collaborate with the authorities or relevant institutions in Kenya. If required, UN-SPIDER will sponsor the travel and the stay of the expert in Kenya. To apply, please provide a short background, résumé or CV; an indication of your current, planned or possible type of collaboration with Kenya; possible sponsoring of the travel to Kenya (ticket/daily expenses).

Please send your application to coen.bussink@unoosa.org until 12 January 2014.

Learn more: [Knowledge Portal](#)

Ghana: UN-SPIDER conducts Technical Advisory Mission

From 25 to 29 November 2013, UN-SPIDER carried out a five-day Technical Advisory Mission to Ghana in order to assess the current state and the potential of using Space-based information for disaster risk management and emergency response in the country. The Mission was conducted upon the invitation of the Government of Ghana through the National Disaster Management Organisation. The mission team comprised ten experts from various international and national institutions. The mission included visits to different national and international institutions and organisations involved in disaster risk management, emergency response and the use of satellite data as well as a one-day workshop.

Learn more: [Knowledge Portal](#)

News from our Regional Support Offices

Russia and Ukraine cooperate on disaster management

UN-SPIDER's Regional Support Office in the Russian Federation, EMERCOM, and the Ukrainian State Emergency Service signed an agreement on 17 December 2013 on cooperation in the area of prevention of industrial accidents as well as disasters caused by natural hazards. EMERCOM reported: "The Plan provides for participation of emergency

rescue units of the Russian Emergencies Ministry and Ukrainian State Emergency Service in response operations in the Russian Federation and Ukraine, as well as exchange of experience in monitoring and forecasting natural and industrial emergency situations."

Read more: [Knowledge Portal](#)





Himalayan Region: ICIMOD holds 44th Board Meeting

Representatives from regional member countries, Independent Board Members, and representatives from ICIMOD donor organizations came together for the 44th ICIMOD Board meeting from 28 to 30 November at ICIMOD Headquarters in Kathmandu. ICIMOD – the International Centre for Integrated Mountain Development - is host to UN-SPIDER's Regional Support Office in the Himalayan region. In addition to a review of the Centre's progress in 2013, policies and strategies that build on the ICIMOD's new strategy and five-year plan were discussed and approved during the Board meeting. The annual meeting included meetings of the Programme Advisory Committee, ICIMOD Support Group, and the ICIMOD Board of Governors.

Read more: [Knowledge Portal](#)

Asian Disaster Reduction Center publishes Natural Disasters Data Book 2012

The Asian Disaster Reduction Center (ADRC), one of UN-SPIDER's Regional Support Offices, has published the Natural Disasters Data Book 2012. The document provides statistical perspectives in figures and tables for 2012 as well

as for the period 1983-2012 based on data obtained by EM-DAT. The main findings presented in the document include that 328 disasters caused by natural hazards occurred in 2012 worldwide, killing 10,783 people and affecting over 104 million people. The estimated amount of economic damage came close to US\$142 billion.

Read more: [Knowledge Portal](#)

Pakistan: SUPARCO supports city planning using satellites

The Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), which hosts one of UN-SPIDER's Regional Support Offices, will support the Pakistani Capital Development Authority in preventing encroachments in Islamabad and improve urban planning and monitoring in Pakistan's capital using Space-based information. SUPARCO will compare archived satellite imagery with newly acquired imagery to detect changes. In the process of this measure all of Islamabad will be digitalised resulting in a digital map of the city including the rural areas indicating schools, hospitals, roads, dams, parks, or shopping centres.

Read more: [Knowledge Portal](#)

News from our Community

Indian Ocean islands to establish disaster loss databases

Five islands in the Indian Ocean – the Union of the Comoros, Madagascar, Mauritius, Seychelles, and Zanzibar (Tanzania) – are working to establish and manage disaster loss databases. The losses databases should be able to predict and estimate losses from cyclones, floods, and storm surges. The models to be used are the same as those employed in the UN's 2013 Global Assessment Report on Disaster Risk Reduction. The Project is supported by the UN Office for Disaster Risk Reduction and the Indian Ocean Commission's ISLANDS Project.

Read more: [Knowledge Portal](#)

tropical storms and from 13 to 16 typhoons – six of them reached super typhoon strength. The season this year was close to the most active one in 1964 with 39 tropical storms.

Read more: [Knowledge Portal](#)

ESA: Proba-V ready for operations

Launched on 7 May 2013, ESA's Earth Observation satellite Proba-V has now completed the crucial commissioning phase and declared ready for its operational phase, providing global vegetation data for operational and scientific use. Designed to map land cover and vegetation development, the Proba-V miniaturised satellite tracks the entire planet every two days alerting authorities to crop failures, monitoring inland water resources and tracing the steady spread of deserts and deforestation.

Read more: [Knowledge Portal](#)

Seen from Space: Tropical cyclone and typhoon season 2013

New maps posted on the NASA Earth observatory website show the tracks and intensity of the tropical storms over the Atlantic as well as over the Pacific Ocean in 2013. In the Atlantic occurred 13 tropical storms, none of them developed to major hurricanes, for the first time since 1994. It was one of the least active seasons of the last 60 years. In the Western Pacific in 2013 different agencies noted between 28 and 31

Sri Lanka: Approval for spatial data infrastructure implementation

Recognizing geospatial information as an essential resource that supports the economic, social and environmental





interests, the Survey Department of Sri Lanka has recently received a Cabinet approval to build a National Spatial Data Infrastructure (NSDI). The goal is to provide and integrate geographically-referenced data and make it easily accessible in a user-friendly online portal. "Once the policies are in place, we are looking at launching a geoportal so that citizens can easily access authoritative, consistent and updated maps online", said P.M.P Udayakantha, an official of the Department of Survey.

Read more: [Knowledge Portal](#)

New global agreement on disaster risk expected in 2015

The General Assembly confirmed that the 3rd World Conference on Disaster Risk Reduction will take place in Sendai City, Japan from 14 to 18 March 2015. The main topic on the Conference will be the Hyogo Framework for Action which was adopted in 2005 in the aftermath of the Indian Ocean Tsunami disaster. It is expected that a follow-up global agreement on disaster risk reduction will be reached at the conference. UNISDR Chief Margareta Wahlström said: "The 3rd World Conference provides us with a rare opportunity to forge universal agreement on how to build disaster resilience across all sectors of society."

Read more: [Knowledge Portal](#)

International Charter activated twice in December 2013

The International Charter Space and Major Disasters was activated twice in the month of December in order to provide satellite-based maps and products for emergency response. On 5 and 6 December, a storm hit the UK causing the most serious tidal wave in 60 years. Around 1,400 properties were flooded. In the Middle East, winter storm Alexa has caused days of snow and heavy rain starting 12 December resulting in flooding in Gaza that has forced the evacuation of over 5,000 people. The images delivered under the Charter are available on their website.

Read more: [International Charter](#)

Bolivia celebrates launch of first satellite

On 20 December 2013, Bolivia watched its first telecommunications satellite head into space. Tupak Katari (TKSat-1), named after an indigenous hero who fought Spanish colonial rule, was launched by a Chinese Long March 3B/E rocket from the Xichang Satellite Launch Center in the province of Sichuan. TKSat-1 will offer communications and broadcasting services to Bolivia as well as other support for health-related data, governmental civil projects, and remote

education services.

Read more: [Knowledge Portal](#)

Gulf Stream: Measuring sea surface temperatures with satellites

With data from sensors such as the Thermal Infrared Sensor (TIRS) on NASA's Landsat 8 satellite, experts can calculate sea surface temperatures without having to measure water temperatures on site. NASA's Landsat team has produced an image of the surface temperatures in the Gulf Stream based on data input by the infrared bands of TIRS. "Infrared bands measure how much energy is emitted by the surface of the Earth at particular wavelengths," said Matthew Montanaro, a researcher on NASA's Landsat team. "We can calculate the surface temperature from these measurements through math and some modelling."

Read more: [Knowledge Portal](#)

Weather Forecasting: USA and Japan to launch precipitation satellite in February

The American and the Japanese Space Agencies, NASA and JAXA, will jointly launch a new Earth Observation satellite on 27 February 2014, as was announced on 26 December 2013. The Global Precipitation Measurement (GPM) Core Observatory satellite will serve environmental research and weather forecasting. It will be launched with a Japanese H-IIA rocket from JAXA's Tanegashima Space Centre. NASA reported: "GPM is an international satellite mission that will provide advanced observations of rain and snowfall worldwide, several times a day to enhance our understanding of the water and energy cycles that drive Earth's climate. The data provided by the Core Observatory will be used to calibrate precipitation measurements made by an international network of partner satellites to quantify when, where, and how much it rains or snows around the world."

Read more: [Knowledge Portal](#)

El Salvador: Eruption of Chaparrastique Volcano

On Sunday morning, 29 December 2013, Chaparrastique volcano in eastern El Salvador (San Miguel) erupted forcing thousands of people to leave their homes. Everyone within a 3 kilometre (2 mile) radius had to be evacuated, as BBC reported. The ashes were blown more than 71 kilometres (44 miles) downwind, as a natural colour satellite image captured by the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Aqua satellite shows.

Read more: [Knowledge Portal](#)





Upcoming events

13 January 2014, Geneva, Switzerland: Natural Disaster Mitigation and Earth Observations: a GEOSS perspective

The Workshop organized by Secure World Foundation and GEO Secretariat will bring together representatives from all sectors working on Earth Observation for Disaster Risk Reduction and Management (DRRM). The main goal is to stimulate discussion and communication between sectors, providers and users, in the hope of working out better ways to implement the gathered information in the disaster management on local, regional, national and international level. Key points will be the access to this information and the technological gap between countries. It will take place on 13 January 2014 in Geneva, Switzerland.

Read more: [Secure World Foundation](#)

20-24 January 2014, Karachi, Pakistan: Digital Image Processing using ERDAS Imagine

The course organised by UN-SPIDER's Regional Support Office in Pakistan, SUPARCO, is aimed at providing basic concepts of image processing and extensive hands-on-experience of working on ERDAS IMAGINE software. A variety of image processing functions available in the ERDAS IMAGINE software will be covered, including (but not limited to) data extraction, image enhancement, data merging and mosaicing, classification, map composition, geo-coding and vector data handling as well as 3D tools such as Virtual GIS. It will take place from 20 to 24 January 2014 in Karachi, Pakistan.

Read more: [SUPARCO](#)

5-7 March 2014, Bucharest, Romania: 9th Conference on Image Information Mining: The Sentinels Era

This conference organized by UN-SPIDER's Regional Support Office in Romania, ROSA, will address the following topics: image information mining and indexing models, multi-sensor and multi-temporal information extraction, automatic semantic annotation, ontologies and semantic web, database management systems and visualization tools, learning paradigms for very large data sets, spatio-temporal search engines, human-machine communication, knowledge discovery in databases. The conference will take place from 5 to 7 March 2014 in Bucharest, Romania.

Read more: [Ninth Conference on Image Information Mining](#)

1-4 April 2014, Rabat, Morocco: 3rd International Conference on the Use of Space Technology for Water Management

The United Nations Office for Outer Space Affairs (OOSA), the Government of Morocco, European Space Agency (ESA) and the Prince Sultan bin Abdulaziz International Prize for Water (PSIPW) are jointly co-organizing the 3rd International Conference on the Use of Space Technology for Water Management to promote the application of space technology for the benefits of the developing countries. The Conference will be held in Rabat, Morocco, from 1 to 4 April 2014, and it will be hosted by the Royal Center for Remote Sensing (CRTS) on behalf of the Government of Morocco. The participants will discuss how space technology can contribute in better management of water resources, including combating desertification, ensuring access to safe drinking water and managing water-related emergencies in developing countries.

Read more: [UNOOSA](#)

