



SEPTEMBER 2014 UPDATES

UN-SPIDER at a glance

UN-SPIDER Beijing Conference “Multi-hazard Disaster Risk Assessment” successfully concluded

The United Nations International Conference on Space-based Technologies for Disaster Management - “Multi-hazard Disaster Risk Assessment” took place from 15 to 17 September 2014 in Beijing, China. This conference was co-organized by the UN-SPIDER Beijing Office of UNOOSA and the Ministry of Civil Affairs of the People’s Republic of China. More than 110 participants from 36 countries representing 56 organizations attended the event. The conference agenda offered six plenary sessions, three working group sessions and one scientific symposium consisting of about 50 presentations. The symposium focused on “Advances in using space technology and geospatial information for disaster management”. On the last day, the conference invited participants to visit two centres of excellence in Beijing. All presentations are available online.

Read more: [Knowledge Portal](#)

China: UN-SPIDER Training Course on Space Technologies for Drought Monitoring

Back to back with its United Nations International Conference on Space-based Technologies for Disaster Management “Multi-hazard Disaster Risk Assessment” in Beijing, the UN-SPIDER Beijing Office offered an international training course on “Drought Monitoring and Assessment Using Space Technology” from 18 to 22 September 2014. The participants included experts from Member States with which UN-SPIDER had previously cooperated. The training was organised jointly with the National Disaster Reduction Centre (NDRCC) of China. A total of 22 participants from 17 countries from Asia and the Pacific as well as from Africa attended the training programme. It included theory lectures and hands-on exercises taught by experts from UN-SPIDER, NDRCC, and Beijing Normal University (BNU).

Read more: [Knowledge Portal](#)

UN-SPIDER hosts joint Workshop on Remote Sensing and Multi-Risk Modelling for Disaster Management

On 19 and 20 September 2014, UN-SPIDER hosted a joint workshop with the German Aerospace Center (DLR) and the Tohoku University, International Research Institute of Disaster Science (IRIDeS) on the UN Campus in Bonn, Germany. The topic of the workshop was “Remote Sensing and Multi-Risk Modelling for Disaster Management”. It aimed to serve as a platform for the researchers to exchange ideas and present recent advances in the field of disaster risk management, response and recovery using remote sensing and geoscience technology. 14 experts from IRIDeS, the Tokyo Institute of Technology, Chiba University, DLR’s German Remote Sensing Data Center (DFD) and the UN-SPIDER Bonn office discussed recent research findings and their implications for disaster risk management. All presentations are available online.

Read more: [Knowledge Portal](#)

New in the UN-SPIDER team: Dr. Joachim Post

The UN-SPIDER team warmly welcomes our new colleague in the Bonn Office, Dr. Joachim Post. Joachim will be providing technical and scientific support to the Programme. He will mainly support the Bonn Office in its activities, including the further development of the UN-SPIDER Knowledge Portal, Technical Advisory Support, and the establishment of partnerships. Joachim is a seconded expert from the German Aerospace Center (DLR), where he has worked at DLR’s German Remote Sensing Data Center (DFD) since 2006 as a research scientist on risk assessment. As an expert on environmental and natural hazards risk and vulnerability assessments, early warning, climate impact research, earth observation and simulation modeling, Joachim’s main interest is in generating and transferring knowledge for risk reduction.

Read more: [Knowledge Portal](#)





UN-SPIDER participates in Asia-Pacific Policy Makers Dialogue

Recognizing the importance of space-based information for disaster risk reduction, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the Japan Aerospace Exploration Agency JAXA jointly organised the meeting “Policy Makers Dialogue and Capacity Development for Disaster Risk Reduction and Management in Asia-Pacific”. The meeting took place from 23 to 25 September 2014. The participants discussed how to best harness Information and Space Technology and Geographical Information Systems for improved disaster risk reduction. UN-SPIDER participated in the meeting in order to highlight the programme’s activities. Shirish Ravan of UN-SPIDER was one of the keynote speakers and a panel member for the group focusing on “Strengthening Regional Cooperative Mechanisms on the Utilization of Space Technology and GIS for Disaster Management”.

Read more: [Knowledge Portal](#)

Disaster Risk Reduction: On the way to WCDRR

The upcoming Third World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, in March 2015 will bring together more than 6,000 international delegates and experts. WCDRR’s main outcome will be the post-2015 framework for disaster risk reduction (HFA-2). Recognizing the relevance of such a global event, UN-SPIDER has been working with more than 15 partners from the Earth Observation community and from UN and other international, regional and national organizations from Asia, Africa, the Americas, and Europe to promote the use of space-based information at WCDRR. One of the aims of the group is to encourage the incorporation of a paragraph on the benefits of Earth Observation in the text of the framework. UN-SPIDER and its partners are also working on suggestions on how space technologies can potentially contribute to the indicator system of HFA-2. In addition, UN-SPIDER and its partners aim to conduct a dedicated working session during the conference.

Read more: [Knowledge Portal](#)

UN-SPIDER participates in 22nd OSCE Economic and Environmental Forum

From 10 to 12 September 2014, the Organization for Security and Co-operation in Europe (OSCE) held its Concluding Meeting of the 22nd OSCE Economic and Environmental Forum in Prague, Czech Republic, dedicated

to the topic “Responding to environmental challenges with a view to promoting cooperation and security in the OSCE area”. UN-SPIDER was invited to participate in the meeting to make a presentation on ICT solutions for disaster early-warning and disaster response, the role of space-based monitoring and warning systems, as well as on innovative approaches to data information management. UN-SPIDER additionally used this opportunity to establish links with the Secretariat of the OSCE and to discuss potential synergies and opportunities for cooperation.

Read more: [Knowledge Portal](#)

Sri Lanka: UN-SPIDER to conduct training programme in November

As a follow up of the UN-SPIDER Technical Advisory Mission (TAM) to Sri Lanka in October 2011, UN-SPIDER is organising a national training course scheduled to take place from 17 to 21 November 2014. It is the second training programme that UN-SPIDER will be conducting as a result of the 2011 TAM in Sri Lanka. The workshop and training programme “Earth observation technologies for flood risk mapping, modelling and management” will be jointly offered by UN-SPIDER, the Sri Lanka Disaster Management Centre DMC and the International Water Management Institute IWMI. The programme will have two parts: A one-day workshop and a training course. It is geared towards representatives of relevant institutions in Sri Lanka.

Read more: [Knowledge Portal](#)

Viet Nam: UN-SPIDER Workshop and Exercises scheduled in November

As a follow up to the Technical Advisory Mission (TAM) conducted by UN-SPIDER in Viet Nam in March 2013, UN-SPIDER has planned a workshop and exercises in Viet Nam from 10 to 15 November 2014. These activities support the implementation of the recommendations made during the 2013 mission, which included capacity building. The workshop and exercises, implemented jointly with the Geospatial Information and Technology Association (GITA), is proposed with two objectives: First, to empower the government to use space-based and geospatial information at the local and regional level during a crisis; and second, to foster personal relationships and knowledge exchange required at the local and regional level for successful collaboration during a disaster.

Read more: [Knowledge Portal](#)





Featured: Dataset of the month

In this new section, the UN-SPIDER team presents to you every month one special dataset or product out of our database on satellite resources.

Access the full list [here](#).

Our September dataset: USGS's Hazards Data Distribution System (HDDS)

In case of a disaster, immediate access to relevant information can save lives. satellite imagery provides an invaluable source of information. Searching for relevant datasets can be a time-consuming task. With its Hazards Data Distribution System (HDDS) Explorer the U.S. Geological Survey (USGS) provides easy and tailor-made access to selected datasets for specific disasters.

The HDDS Explorer is a unique web-based interface to search for satellite and aerial imagery and documents designed to assist in the response to natural and man-made disasters. HDDS contains imagery acquired in the aftermath of a disaster as well as imagery of the same region before the event.

Read more: [Knowledge Portal](#)

News from our Regional Support Offices

IGAC: Development of Forest Fire Detection and Classification App

The Research and Development in Geographic Information Centre (CIAF) of IGAC, UN-SPIDER's Regional Support Office in Colombia, is working on the development of tools for disaster management and disaster relief. One of its products is an application called SEMARK (Forest Fire Severity Markov Classification), which is the result of

research conducted within the framework of a PhD thesis on the use of remote sensing techniques in forest fires. SEMARK creates classifications of spectral indices derived from satellite imagery (NBR, NDVI, and SAVI) classifiers using Markov random fields. Based on the results, SEMARK can be used as an initial tool in the identification and quantification of areas affected by forest fires.

Read more: [Knowledge Portal](#)

News from our Community

Disaster statistics: 22 million people displaced in 2013

According to a report from the International Displacement Monitoring Centre (IDMC) of the Norwegian Refugee Council, almost 22 million people were forced to flee their homes due to disasters triggered by natural hazards in 2013. These numbers could increase in the future as urban populations grow, the report says. The majority of the 22 million were displaced in Asia (19 million) because of floods, storms and earthquakes. In the Philippines, typhoon Haiyan alone displaced 4.1 million people.

Read more: [Knowledge Portal](#)

SWIR sensor: Seeing through active fire smoke

DigitalGlobe's latest Earth Observation satellite, WorldView-3, includes a shortwave infrared sensor (SWIR) that can see through thick smoke clouds of active fires on the ground. SWIR can thus provide unique and important information for fire response efforts by locating flame fronts and hot spots. What is more, SWIR can even estimate where a fire is burning the hottest. WorldView-3 currently offers the highest Earth Observation imagery resolution commercially available.

Read more: [Knowledge Portal](#)





Ethiopia plans to launch own satellite

Ethiopia aims to launch its first own satellite within the next five years. It will be a “medium research satellite” as the Ethiopian Radio and Television Agency EBC reported. “ET-SAT” will be a 20-25 kg small satellite (CubeSat). Signing the agreement, the Director of the Entoto Observatory and Research Center EORC, Dr. Solomon Belay, said Ethiopia will benefit a lot from owning a satellite.

Read more: [Knowledge Portal](#)

NASA: High-resolution topographic data soon available globally

The United States has announced that it will make high-resolution topographic data available globally in 2015. Previously, the data generated from NASA’s Shuttle Radar Topography Mission (SRTM) in 2000 was only available in the US. Initially, topographic data for Africa will be released with the goal of empowering local authorities to “better plan for the impacts of severe environmental changes such as drought, glacial retreat, inland flooding, landslides and coastal storm surges”. The following release will focus on Latin America and the Caribbean.

Read more: [Knowledge Portal](#)

International Charter activated twice in September 2014

The International Charter: Space and Major Disasters was activated twice in the month of September to provide satellite-based disaster maps; both times for floods. Heavy floods and landslides in Pakistan’s Punjab and Kashmir provinces caused the first activation on 12 September. The mechanism was activated by UNITAR/UNOSAT on behalf of UNOCHA. The second activation of the month was triggered by Direction Générale de la Sécurité Civile et de la Gestion des Crises (COGIC) for severe floods in the South of France.

Read more: [International Charter](#)

International Charter: Website relaunched

The International Charter: Space and Major Disasters has completed re-designed its website. It now includes a new design as well as new features, including an interactive map – the “Charter Geographic Tool” – showing all activations and allowing the user to filter by hazard or year. In order to improve the design and the usability of the website even further, the International Charter encourages users to provide feedback and suggestions.

Read more: [International Charter](#)

DMCii upgrades its data centre

The satellite imagery provider DMC International Imaging (DMCii) has upgraded its data centre now hosting satellite data covering five billion square kilometres; that is ten times the Earth’s surface. Through improved hardware, the company can now process imagery even faster as well as retrieve data from the ground station three times faster. In addition to commercial services, DMCii also provides free-of-charge satellite data for the International Charter: Space and Major Disasters.

Read more: [Knowledge Portal](#)

Russia to cooperate with China on satellite navigation

The Deputy Chief of the Russian Space agency ROSCOSMOS announced that Russia plans to sign an agreement with China in 2014 on the issue of installing GLONASS and Beidou stations in China and Russia, respectively. The two sides agreed to establish a sub-commission for cooperation in the sphere of satellite navigation under the bilateral commission in charge of preparing regular meetings of the two countries’ prime ministers. GLONASS is the Russian satellite navigation system; Beidou is the Chinese system.

Read more: [Knowledge Portal](#)

Radar Images: Sentinel-1A maps California earthquake

The European radar satellite Sentinel-1A has captured the rupture of the recent major earthquake in Napa Valley, California, USA. The quake on 24 August 2014 was the biggest one in 25 years. The European Space Agency ESA explains how Sentinel-1A was used: “By processing two Sentinel-1A images, which were acquired on 7 August and 31 August 2014, an interferogram was generated. The two round shapes around Napa valley, which are visible in the central part of the image show how the ground moved during the quake.” The satellite-based research confirmed that the 6.0 earthquake was created through part of the West Napa Fault system.

Read more: [Knowledge Portal](#)

UN establishes Independent Expert Advisory Group on Data Revolution

The United Nations’ Secretary-General Ban Ki-moon announced on 29 August 2014 the establishment of an Independent Expert Advisory Group on the data revolution for Sustainable Development. He expects the group to provide him with inputs to shape “an ambitious and achievable vision” for a future development agenda beyond 2015 to succeed the United Nations Millennium





Development Goals. The 24-member group of experts from civil society, private sector, academia, governments and international organizations is also expected to assess new opportunities linked to innovation, technical progress and the surge of new public and private data providers to support and complement conventional statistical systems and strengthen accountability at the global, regional and national levels.

Read more: [Knowledge Portal](#)

Disaster Resilience Journal: 42 Days of Disaster Resilience

Since 22 September 2014, the International Federation of Red Cross and Red Crescent Societies (IFRC) and the European Commission have been publishing daily stories of resilient people around the globe via social media, blogs and word of mouth in their new “Disaster Resilience Journal” media campaign. For 42 days in total the Disaster Resilience Journal will tell the stories of how communities in 24 different countries prepare for disasters.

Read more: [Knowledge Portal](#)

Upcoming events

20-23 October 2014, Ensenada, Mexico: UN/Mexico Symposium on Basic Space Technology: “Making Space Technology Accessible and Affordable”

The objective of the UN/Mexico Symposium is to enhance access to space application tools for sustainable development through building capacity in basic space technology. The Symposium will be hosted by the Center for Scientific Research and Higher Education (CICESE) and the Mexican Space Agency on behalf of the Government of Mexico. The Symposium objectives will build on the outcomes of previous BSTI Symposiums held from 2009 to 2013. The relevant symposium reports, containing the objectives, symposium summaries, observations and recommendations made by participants are available online.

Read more: [UNOOSA](#)

23-24 October 2014, Berlin, Germany: Satellite Masters Conference

The first Satellite Masters Conference is much more than just a networking event: It is a unique marketplace for sharing innovations for space-based technologies and infrastructures and connecting with the world’s leading network for downstream satellite business. Taking place from 23 to 24 October 2014 in Berlin, the event will feature an outstanding blend of conference sessions, workshops, and round-table discussions centered around leveraging satellite-derived data and other space solutions for business and society.

Read more: [Satellite Masters](#)

11-14 November 2014, Libreville, Gabon: GEO-XI Plenary

From 11 to 14 November, GEO members will convene in Libreville for their annual plenary meeting. The annual Plenary is GEO’s primary decision-making body and includes Board meetings as well as executive committee meetings. Several side events are also planned.

Read more: [GEO Plenary](#)

8-9 January 2015, Uttar Pradesh, India: Second International Space Conference 2015

Along with providing a common platform for academics, industry, researchers and government, to share knowledge and ideas for development in the space sector (science & technology, space law & policy and life science issues), the International Space Conference ISC 2015 in Uttar Pradesh will focus on promoting Space Applications in Climate Change. This international event will gather experts from across the globe to discuss and explore opportunities for new co-operations, research projects or joint ventures.

Read more: [Aryavartaspace](#)

